

Monthly Performance Report

May 2018

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

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

CH2MHILL
Plateau Remediation Company

P.O. Box 1600
Richland, Washington 99352

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APPROVED

By Julia Raymer at 4:07 pm, Jun 21, 2018

Release Approval

Date

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CH2MHILL
Plateau Remediation Company



L. Ty Blackford
President and Chief
Executive Officer

Monthly Performance Report

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May 2018
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EXECUTIVE SUMMARY

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

- **Plutonium Finishing Plant (PFP) Closure Project:** The PFP team began placing large sacks previously filled with demolition debris into containers suitable for shipping and storage. Crews also made preparations to expand the Radiological Buffer Area (RBA) and adjust the Work Control Zone.
- **Waste and Fuels Management Project (W&FMP):** Workers at T Plant began preparing to ship the first Sludge Transport and Storage Container (STSC) to the 105 K West Reactor Basin Annex in preparation to receive sludge. Sludge removal is scheduled to start the second week in June.
- **K Basin Operations (KBO):** Workers at KBO have completed more than 60 percent of demolition preparations of a boiler room that once supported 105 K East Reactor operations. The team was also successful in transitioning the 105 K West Reactor Basin and Annex from startup and testing mode to operations mode to support the eventual retrieval and transfer of highly radioactive sludge from the 105 K West Reactor Basin to the T Plant Canyon for interim storage.
- **River Risk Management Project (RRM):** Workers from the 324 Building Disposition Project began installation of the transfer mechanism at the 324 Building Mockup and submitted the Annual 324 Building Safety Basis Update document to RL for final approval. Workers also completed geotechnical testing of the soils from the 324 Building external bore holes and continued factory acceptance testing of soil removal equipment at fabricator's shops and cell sealing activities. The 618-10 Burial Ground project continued site demobilization activities, final re-contouring, and closeout documentation.
- **Plutonium Uranium Extraction (PUREX) Plant Tunnel 2:** The Project Technical Services (PTS) and Central Plateau Risk Management Project (CPRMP) teams worked together to prepare for safe roadway access to PUREX Tunnel 2. This work included grading and placing gravel. This work is critical to keep the access areas safe prior to stabilizing the tunnel.

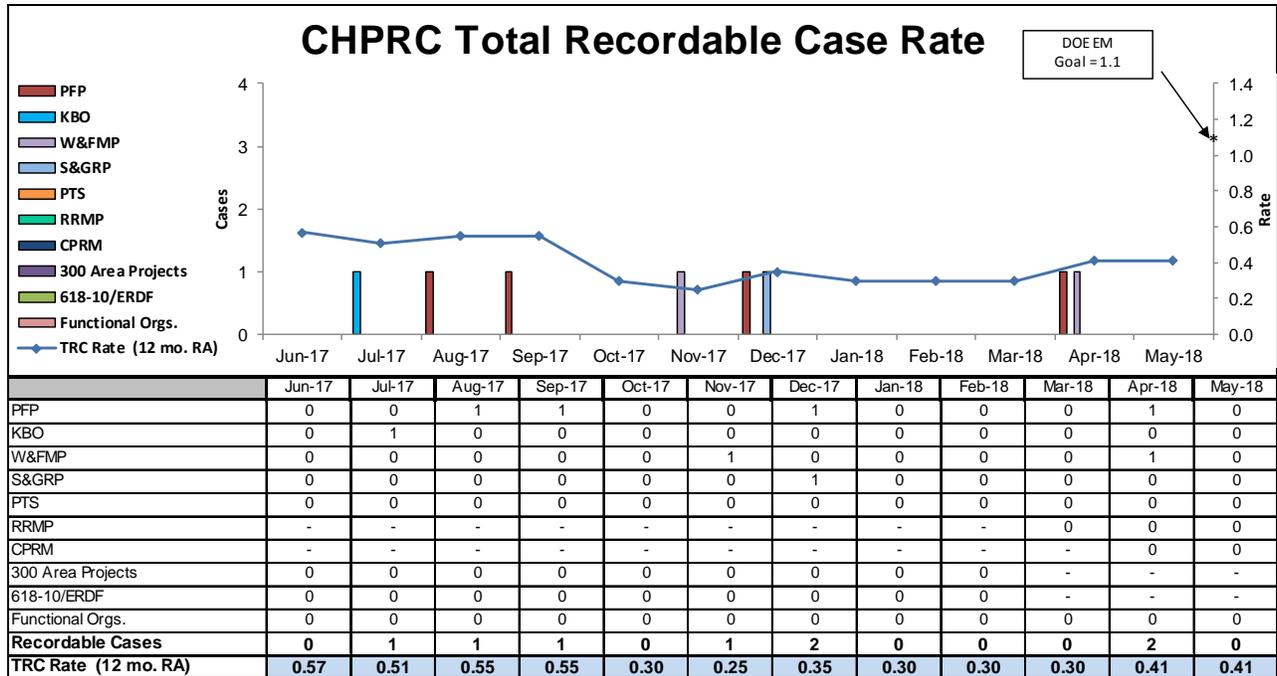


Workers get familiar with the super sack mock-up that contains demolition debris.

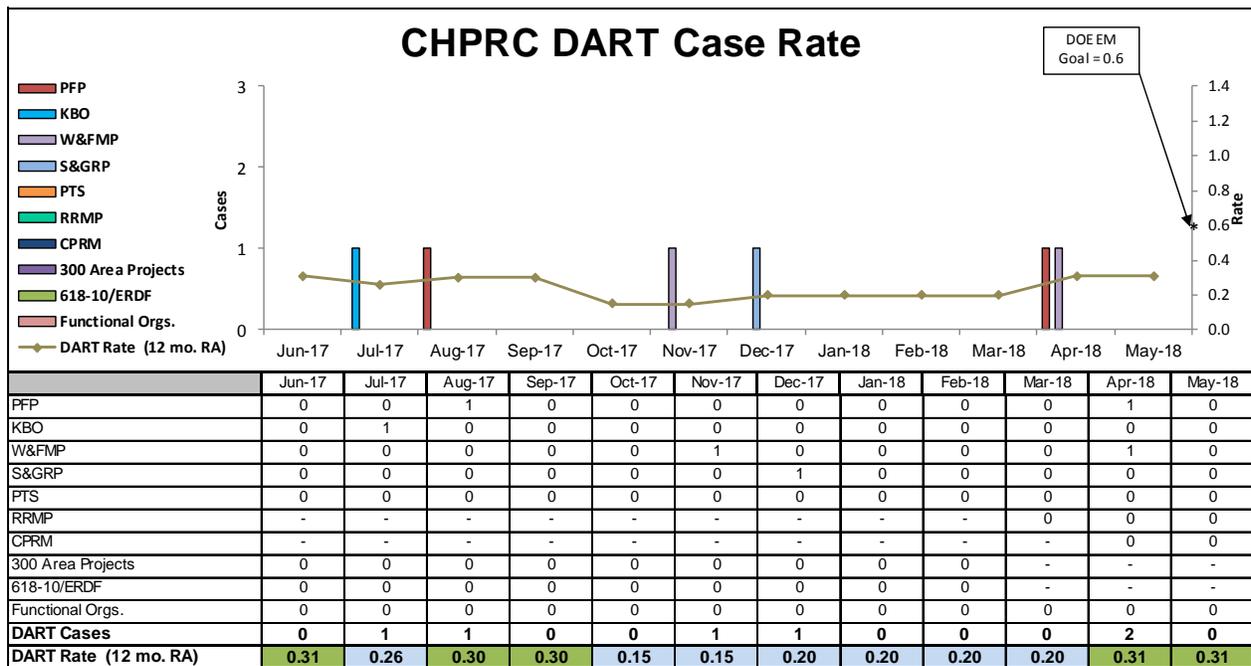
- The President's Zero Accident Council (PZAC) meeting for May was hosted by Soil and Groundwater Remediation Project (S&GRP). The three main ideas were:
 - o Cancer Bypass Highway.
 - o Conduct of Work.
 - o Security with Suspicious Packages.
- Four "*Thinking Target Zero*" (TTZ) bulletins were published to convey important occupational, safety, health, and environmental messages:
 - o Summer PPE.
 - o EMS Audit Prep.
 - o Outdoor Cooking.
 - o VPP Setting Goals.
- *Weekly Safety Tailgate* briefing packages communicated relevant topics and safety information to the workforce:
 - o Four Lessons Learned:
 - Place work areas and equipment in safe configuration to avoid potential uncontrolled electrical hazards (CHPRC).
 - Ironworker falls 30 feet through skylight roof opening (offsite).
 - Lack of zero energy verification leads to arc-flash injury (offsite).
 - Planning for decommissioning and responding to hazards (offsite).
 - o Injuries.
 - o Weekly Ethics Moments.
 - o Vehicle events.
 - o Electrical Safety Month.
 - o Lithium Battery Safety.
 - o Summer Footwear.
 - o Fall Protection Saves Lives.
 - o What is Radiological Oversight and Assistance Committee (ROAC)?
 - o Welcome Back! Worker Safety Re-focus.
 - o Motorcycle Safety.

TARGET ZERO PERFORMANCE

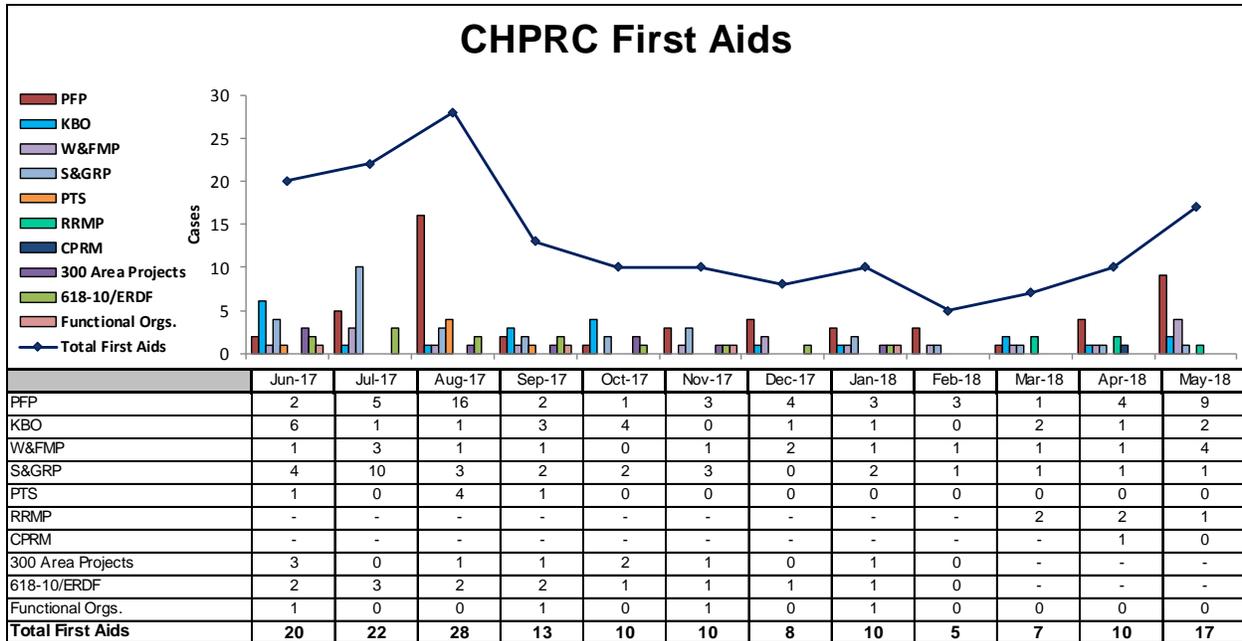
CHPRC continued focusing on integrating and implementing safety programs in all program and project areas.



Total Recordable Injury Case (TRC) Rate: The 12-month rolling average TRC rate of 0.41 is based on a total of eight Recordable injuries. May had no Recordable cases.



Days Away, Restricted or Transferred (DART) Workdays Case Rate: The 12-month rolling average DART rate of 0.31 is based on a total of six Days Away cases. May had no DART cases.



First Aid Case Summary: CHPRC reported 17 First Aid cases in May. The contributors were seven abrasions/bruises/contusions, four miscellaneous (burns, rashes, repetitive motion, etc.), three sprains/strains/pains, one cuts/lacerations/punctures, one insect bite and one foreign bodies/irritation in the eye injury. In addition, seven self-treat cases were reported in May.

KEY ACCOMPLISHMENTS

Projects

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

Project Services and Support

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

MAJOR ISSUES

Issue:

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

- As of May month-end, there was a backlog of 52 undefinitized change proposals (CPs), requests for equitable adjustments (REAs), rough orders of magnitude (ROMs), and responses to requests for proposals (RFPs) – totaling approximately \$331 million in net value without fee.

Corrective Action:

- Work with RL to reach agreement on PRC FY2017-2018 alignment and support RL evaluation and determination of the disposition of undefinitized CHPRC CPs/REAs.

Status:

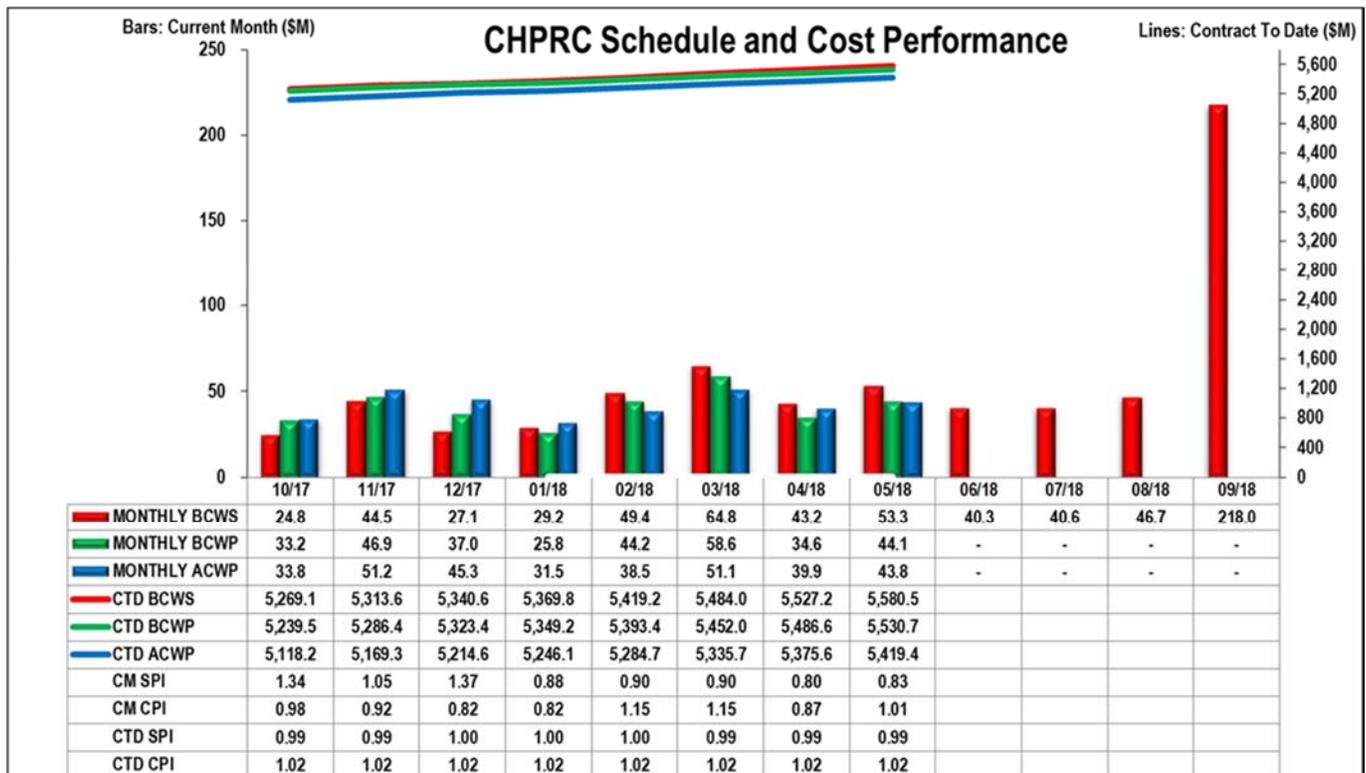
- CHPRC continues to discuss proposed alignment strategy with RL.
 - Realigned remaining contract scope for cost consistent with FY2018 Budget Guidance.

- o Developed configured contract change management basis for contract change entitlement and contract closeout.

Projects

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

EARNED VALUE MANAGEMENT



*September includes \$46.7 million of BCWS in planning packages and \$131.5 million of BCWS in undistributed budget.

	\$M						\$M					\$M		
	Current Period			Contract to Date			Contract to Date			Contract Period				
	Budgeted Cost	Actual Cost	Variance	Budgeted Cost	Actual Cost	Variance	BAC	EAC	Variance					
	BCWS	BCWP	ACWP	Schedule	Cost	BCWS	BCWP	ACWP	Schedule	Cost	BAC	EAC	Variance	
RL-0011 - Nuclear Materials Stab & Disp PFP	0.0	0.0	6.4	0.0	(6.4)	988.7	973.0	1114.8	(15.7)	(141.8)	988.7	1,197.9	(209.3)	
RL-0012 - SNF Stabilization & Disposition	3.4	3.2	4.0	(0.3)	(0.9)	728.8	728.4	699.7	(0.4)	28.7	745.4	718.0	27.4	
RL-0013 - Solid Waste Stab & Disposition	13.9	12.3	10.0	(1.6)	2.3	1276.8	1271.2	1188.9	(5.6)	82.4	1,382.5	1,307.3	75.2	
RL-0030 - Soil & Water Rem-Grndwtr/Vadose	13.1	12.0	8.9	(1.1)	3.1	1491.3	1485.1	1437.0	(6.1)	48.2	1,595.5	1,544.8	50.7	
RL-0040 - Nuc Fac D&D - Remainder	3.3	3.6	3.8	0.3	(0.1)	479.6	476.2	451.3	(3.4)	24.8	510.7	486.7	24.0	
RL-0041 - Nuc Fac D&D - RC Closure Project	19.2	12.7	10.5	(6.5)	2.2	589.7	571.0	506.5	(18.7)	64.6	677.0	601.2	75.7	
RL-0042 - Nuc Fac D&D - FFTF Project	0.2	0.2	0.1	(0.0)	0.1	25.7	25.7	21.3	(0.0)	4.4	26.5	21.9	4.6	
Total		53.3	44.1	43.8	(9.2)	5,580.5	5,530.7	5,419.4	(49.9)	111.3	5,926.2	5,877.9	48.3	

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

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

Performance Summary

CHPRC continues to track completion of the contract scope within budget and is currently projecting a variance at completion (VAC) of \$48.3 million, with \$66.8 million of management reserve (MR), for a total positive variance of \$115.1 million. For May, the project was 17.3 percent behind schedule and 0.7 percent under planned cost. Contract to date (CTD), the project was 0.9 percent behind schedule and 2.0 percent under planned cost.

The VAC decreased by \$29.8 million between April and May. The change was primarily due to an updated project completion forecast for project breakdown structure (PBS) RL-0011, which takes into account recovery actions and the updated path forward for demolition and project closeout.

The current month (CM) negative schedule variance is primarily due to PBS RL-0041 324 Building Disposition Project, which experienced delays in performing cell sealing, core drilling, geo-probe pulling, and 324 Building structural modifications due to the high Alpha latent condition discovered at the 324 Building in prior months, as well as a subcontractor delay in completing the structural modifications design. In addition, other contributors to the overall current month schedule variance is due to the accelerated performance of AB Waste Site remediation work scope planned in October 2017 through November 2018 completed ahead of schedule in FY2016. The 183.2KE backfill started earlier than planned and was accelerated because of shorter turn-around times between pit 23 and Waste Site 183.2KE. Radioactive contamination was discovered below the designed depth of the excavation at Waste Site 116-KE-2, during decommissioning of the sample well that goes through the crib. As a result, the excavation volume and schedule duration have increased.

Also contributing to the negative schedule variance is PBS RL-0013 associated with transuranic (TRU) repacking between three accounts. The first two are TRU Large Box Repack and PFP, both associated with work planned for this period but already completed in a prior period. The third account is the delay of two shipments of Mixed Low-Level Waste (MLLW) that were planned in the current period but delayed to June in order to allow more time to develop lifting plans. The two waste containers are shored in such a way that a lifting device is used to position the rigging without affecting the shored portions of the boxes.

The CM cost variance is within reporting thresholds.

FUNDING ANALYSIS

FY2018 Funds vs. Fiscal Year Spend Forecast (\$M)

PBS	Project	FY2018		Variance
		Projected Funding	Spending Forecast	
Estimate at Complete				
RL-0011	Nuclear Materials Stabilization and Disposition	80.0	78.9	1.2
RL-0012	Spent Nuclear Fuel Stabilization and Disposition	41.9	38.5	3.5
RL-0012	15-D-401 Sludge Retrieval Project	18.8	17.9	0.9
RL-0013	Waste and Fuels Management Project	144.3	166.8	(22.5)
RL-0013	Management of Cesium and Strontium Capsules	6.5	1.2	5.3
RL-0030	Soil, Groundwater and Vadose Zone Remediation	121.9	113.6	8.3
RL-0040	Nuclear Facility D&D, Remainder of Hanford	69.0	40.6	28.4
RL-0041	Nuclear Facility D&D, River Corridor	143.6	137.8	5.8
RL-0042	Fast Flux Test Facility Closure	4.0	1.9	2.1
Total Estimate at Complete		630.0	597.0	33.0
Incremental Scope Pending Change Management				
RL-0011	Nuclear Materials Stabilization and Disposition	0.0	0.0	0.0
RL-0012	Spent Nuclear Fuel Stabilization and Disposition	0.0	0.0	0.0
RL-0012	15-D-401 Sludge Retrieval Project	0.0	0.0	0.0
RL-0013	Waste and Fuels Management Project	0.0	(44.2)	44.2
RL-0013	Management of Cesium and Strontium Capsules	0.0	0.0	0.0
RL-0030	Soil, Groundwater and Vadose Zone Remediation	0.0	0.4	(0.4)
RL-0040	Nuclear Facility D&D, Remainder of Hanford	0.0	13.6	(13.6)
RL-0041	Nuclear Facility D&D, River Corridor	0.0	1.2	(1.2)
RL-0042	Fast Flux Test Facility Closure	0.0	0.0	0.0
Total Incremental Work Scope		0.0	(28.9)	28.9
Total Fiscal Year Spend Forecast				
RL-0011	Nuclear Materials Stabilization and Disposition	80.0	78.9	1.2
RL-0012	Spent Nuclear Fuel Stabilization and Disposition	41.9	38.5	3.5
RL-0012	15-D-401 Sludge Retrieval Project	18.8	17.9	0.9
RL-0013	Waste and Fuels Management Project	144.3	122.6	21.7
RL-0013	Management of Cesium and Strontium Capsules	6.5	1.2	5.3
RL-0030	Soil, Groundwater and Vadose Zone Remediation	121.9	114.0	7.9
RL-0040	Nuclear Facility D&D, Remainder of Hanford	69.0	54.2	14.7
RL-0041	Nuclear Facility D&D, River Corridor	143.6	139.0	4.6
RL-0042	Fast Flux Test Facility Closure	4.0	1.9	2.1
Total		630.0	568.1	61.9

Funds/Variance Analysis

For May, FY2018 expected funding was unchanged and remains at \$630 million. The spending forecast decreased \$6 million from last month due primarily to incorporating the positive variance distribution from the labor and general and administrative (G&A) overhead accounts.

BASELINE CHANGE REQUESTS

In May 2018, CHPRC approved and implemented 12 BCRs into the PMB. Ten of the 12 BCRs impacted the PMB. Each change request is identified in the table below:

Change Request #	Title	PBS	Summary of Change
BCR-012-18-006R0	<i>Incorporate Scope Changes – RL-0012</i>	RL-0012	This BCR incorporated proposed scope changes that are additions to the PMB. This BCR increased the PMB value by \$593K.
BCR-012-18-007R0	<i>MR Draw for Sludge Transport System Cask Lid Fabrication</i>	RL-0012	This BCR drew down MR for in-scope unplanned work associated with fabrication of a new lid to replace the current lid for Sludge Transport System (STS) Cask 2 to address realized risk STP-151 Leak Tightness of ST Casks. This BCR increased the PMB value by \$252K.
BCR-013-18-019R0	<i>Incorporate CO 322 IDF Revised Operational Requirements</i>	RL-0013	This BCR incorporated the additional work scope associated with Change order (CO) 322, <i>Integrated Disposal Facility Revised Operational Requirements</i> . This BCR increased the PMB value by \$964K.
BCR-013C-18-021R0	<i>W-135 EVM Type Change for Env Reg Permits</i>	RL-0013	This BCR modified the PMB schedule to reflect the earned value method (EVM) type changed from level of effort (LOE) to discrete EVM type. This BCR did not change the PMB value.
BCR-030-18-019R0	<i>Incorporate Additional GW Monitoring Plans for DWMUs</i>	RL-0030	This BCR modified the PMB to incorporate additional Groundwater Monitoring Plan activities. This BCR increased the PMB value by \$124K.
BCR-030-18-020R0	<i>MR Draw for 100-NR-1 & 100-NR-2 TI Waiver</i>	RL-0030	This BCR drew down MR for the in-scope unplanned activities required to prepare and submit a Technical Impracticability (TI) Evaluation as part of the 100-NR-1 and 100-NR-2 Operable Unit (OU) revised Decisional Draft B Remedial Investigation Feasibility Study (RI/FS) Report. This BCR increased the PMB value by \$108K.
BCR-030-18-021R0	<i>MR Draw for UP-1 Drilling Standby</i>	RL-0030	This BCR drew down MR for the in-scope unplanned activities associated with placing the installation of three of the five dual use wells planned in the 200-UP-1 Groundwater Operable Unit on standby. This BCR increased the PMB value by \$261K.
BCR-041-18-017R0	<i>Incorporate Additional scope for CO 306 100D/H Remedial Action Report</i>	RL-0041	This BCR incorporated additional scope to complete the 100-D/H Remedial Action Report as authorized by Change order (CO) 306, <i>Remainder of RCC Project Transition Activities</i> . This BCR increased the PMB value by \$300K.
BCR-041-18-019R0	<i>Convert AB Head House Waste Site Remediation PP to MR</i>	RL-0041	This BCR removed the BCWS in WBS 041.02.02.03.09 for scope no longer required in the PRC and placed the value in MR. This BCR decreased the PMB value by \$2,408K.
BCR-041-18-020R0	<i>Convert Planning Package for 100K Project Management to Management Reserve</i>	RL-0041	This BCR removed the Budget Cost of Work Scheduled (BCWS) in Work Breakdown Structure (WBS) 041.02.11.02.13 for scope no longer required in the PRC and placed the value in MR. This BCR decreased the PMB value by \$8,371K.
BCRA-PRC-18-023R0	<i>HPIC Updates May 2018</i>	RL-0011, RL-0012, RL-0013, RL-0030, RL-0040, RL-0041, RL-0042	This BCR incorporated May FY2018 Hanford Programs Integrated Control Module (HPIC) updates. This BCR did not change the PMB value.

The Allocated (Distributed) Budget decreased by \$8,177K.

Undistributed Budget Activity

BCR Number	Title	PBS	Fiscal Year	UB
BCR-PRC-18-022R0	<i>Undistributed Budget Adjustments May 2018</i>	RL-0013, RL-0030, RL-0040, RL-0041	2018	\$60,393K

The Undistributed Budget increased by \$60,393K.

Management Reserve Activity

BCR Number	Title	PBS	Fiscal Year	MR
BCR-012-18-007R0	<i>MR Draw for Sludge Transport System Cask Lid Fabrication</i>	RL-0012	2018	-\$252K
BCR-030-18-020R0	<i>MR Draw for 100-NR-1 & 100-NR-2 TI Waiver</i>	RL-0030	2018	-\$108K
BCR-030-18-021R0	<i>MR Draw for UP-1 Drilling Standby</i>	RL-0030	2018	-\$261K
BCR-041-18-019R0	<i>Convert AB Head House Waste Site Remediation PP to MR</i>	RL-0041	2018	\$2,408K
BCR-041-18-020R0	<i>Convert Planning Package for 100K Project Management to Management Reserve</i>	RL-0041	2018	\$8,371K

Overall, there was an increase in MR of \$10,157K in May.

Fee Activity

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

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

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

May 2018 Summary of Changes

	FY 2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FYs 2014-2018	Contract Period Total	Total PMB
April 2018 Estimate									
PMB	3,391,477	391,653	471,323	504,826	485,028	629,669	2,482,498	5,873,974	5,873,974
MR	0	0	0	0	0	56,678	56,678	56,678	56,678
Fee	155,504	14,325	14,501	27,804	10,612	18,860	86,101	241,605	241,605
Total	3,546,981	405,978	485,824	532,630	495,639	705,206	2,625,277	6,172,258	6,172,258
May 2018 Change									
PMB									
Change to PMB	0	0	0	0	0	52,216	52,216	52,216	52,216
MR									
Change to MR	0	0	0	0	0	10,157	10,157	10,157	10,157
Fee									
Change to Fee	0	0	0	0	0	0	0	0	0
Total Change	0	0	0	0	0	62,373	62,373	62,373	62,373
May 2018 Estimate									
PMB	3,391,477	391,653	471,323	504,826	485,028	681,884	2,534,714	5,926,190	5,926,190
MR	0	0	0	0	0	66,835	66,835	66,835	66,835
Fee	155,504	14,325	14,501	27,804	10,612	18,860	86,101	241,605	241,605
Total	3,546,981	405,978	485,824	532,630	495,639	767,580	2,687,650	6,234,631	6,234,631

Changes to/Utilization of Management Reserve in May 2018

	FY2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2014-2018	Total
April 2018 MR Totals								
RL-0011	0	0	0	0	0	7,499	7,499	7,499
RL-0012	0	0	0	0	0	8,416	8,416	8,416
RL-0013	0	0	0	0	0	6,185	6,185	6,185
RL-0030	0	0	0	0	0	20,119	20,119	20,119
RL-0040	0	0	0	0	0	8,700	8,700	8,700
RL-0041	0	0	0	0	0	5,571	5,571	5,571
RL-0042	0	0	0	0	0	189	189	189
Total	0	0	0	0	0	56,678	56,678	56,678
May 2018 MR Changes/Utilization								
RL-0011	0	0	0	0	0	0	0	0
RL-0012	0	0	0	0	0	0	0	0
RL-0013	0	0	0	0	0	(252)	-252	-252
RL-0030	0	0	0	0	0	(370)	-370	-370
RL-0040	0	0	0	0	0	0	0	0
RL-0041	0	0	0	0	0	10,779	10,779	10,779
RL-0042	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	10,157	10,157	10,157
May 2018 MR Totals								
RL-0011	0	0	0	0	0	7,499	7,499	7,499
RL-0012	0	0	0	0	0	8,416	8,416	8,416
RL-0013	0	0	0	0	0	5,933	5,933	5,933
RL-0030	0	0	0	0	0	19,749	19,749	19,749
RL-0040	0	0	0	0	0	8,700	8,700	8,700
RL-0041	0	0	0	0	0	16,350	16,350	16,350
RL-0042	0	0	0	0	0	189	189	189
Total	0	0	0	0	0	66,835	66,835	66,835

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 -5/31/2018				Planned Subcontracting:	\$2,720,084,369
Reporting Category				Contract-to-date awards:	\$2,704,557,508
				Bal remaining to award:	\$15,526,861
	\$ Value	%	Goal %	Goal award\$	Bal to Goal
SB	\$1,527,051,178	56.46%	49.3%	\$1,341,001,594	-\$186,049,584
SDB	\$291,269,779	10.77%	8.2%	\$223,046,918	-\$68,222,860
SWOB	\$286,290,846	10.59%	7.5%	\$204,006,328	-\$82,284,518
HUB	\$78,014,952	2.88%	2.2%	\$59,841,856	-\$18,173,096
VOSB	\$220,367,139	8.15%	3.5%	\$95,202,953	-\$125,164,186
SDVO	\$133,414,885	4.93%	1.3%	\$35,361,097	-\$98,053,788
NAB	\$67,123,540	2.48%	N/A	PRC clause H.20 small business requirement ≥ 17% of CHPRC Contract Price performed by SB.	
Large	\$678,418,906	25.08%	N/A		
GOVT	\$4,306,924	0.16%	N/A		
GOVT CONT	\$483,191,859	17.87%	N/A		
EDUCATION	\$118,076	0.00%	N/A	CHPRC Contract Value:	\$5,732,255,464
NONPROFIT_	\$3,987,399	0.15%	N/A	17% rqmt:	\$974,483,429
FOREIGN	\$7,483,167	0.28%	N/A	SB actual:	\$1,527,051,178
Total	\$2,704,557,508	100.00%	N/A	Bal to rqmt	-\$552,567,749

Notes:

1. Since the CHPRC contract award in October 2008, CHPRC has subcontracted more than \$2.7 billion in goods and services, with more than 56 percent going to small businesses. All subcontracting goals have been exceeded.
2. Approximately 91 percent of the total dollars arise from service and staffing contracts and contract amendments, with 6 percent of the remaining expenditures arising from PCard purchases and 3 percent from the balance in purchase orders for materials and equipment.
3. Data is summarized by business categories (Women Owned Minority Business Enterprise codes) in accordance with socioeconomic reporting requirements. Small business categories overlap and should not be added together.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

Contract Section	Project	GFS/I	Status
CONTRACT			
J.12/C.2.2, C.2.3	PBS-11, Plutonium Finishing Plant Closure Project PBS-13, Solid and Liquid Waste Treatment and Disposal	Offsite Transportation of Radioactive Material: RL provides equipment and government drivers to transport TRU materials outbound/inbound between the Hanford Site and Perma-Fix Northwest (PFNW) locations. RL is the authorized shipper and acts as signatory on the shipping papers and ensures DOE Manual 460.2-1 is complied with. RL arranges for Commercial Motor Vehicle Safety Alliance (CVSA) level VI vehicle inspections and verifies that the government drivers meet the applicable Department of Transportation (DOT) Federal Motor Carrier Safety Regulations (49 CFR 382 and 383). RL also inspects the load securement to ensure compliance with DOT regulations and/or Transportation Safety Document (TSD) requirements.	Ongoing
J.12/C.2.3.6	PBS-13, Transuranic Waste Certification	Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico: Provides shipping resources and manages the schedule for transportation of these containers to WIPP. The schedule is variable and the number of shipments is controlled by DOE-HQ on a complex-wide priority. Cost for shipment of TRU waste offsite is borne by the Carlsbad Field Office (CBFO).	No WIPP shipments are planned within the remaining contract period of performance.

DOE ACTIONS/DECISIONS

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

Section A

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

CH2MHILL
Plateau Remediation Company



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

May 2018
CHPRC-2018-05, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

On December 15, 2017, contamination was found outside of the established Plutonium Finishing Plant (PFP) radiological boundaries. On December 18, 2017, follow-up radiological surveys found additional contamination present in the administrative office area. Work was stopped after the second event, pending completion of a root cause analysis (RCA) and development of a resumption plan. CHPRC finalized the Root Cause Evaluation (RCE) in April and is working with RL and regulators to develop a plan to enable demolition activities to resume. Plutonium Reclamation Facility (PRF) debris, which had been loaded into super sacks prior to stopping work, is being loaded out and adjustments to the work control zone and radiological buffer area (RBA) inside the work control zone are nearly complete. Once all resumption pre-start items are complete, the project will begin demolition debris loadout.

Key Metrics

<i>Key Performance Indicators</i>	<i>Current Month</i>	<i>Contract To Date</i>
COMPLETE Glovebox/ Hood Removed or Dispositioned in Place	0	232 gloveboxes/hoods
COMPLETE KPP Rooms/Areas Ready for Demo	0	72 rooms/areas
COMPLETE Asbestos/Asbestos Containing Material (ACM) Removed	0	35,827
COMPLETE Process Vacuum Piping Dispositioned	0	7,231 feet
COMPLETE Process Transfer Line Dispositioned	0	1,525 feet
COMPLETE Pencil Tank Units Removed (Shipped)	0	196 pencil tank units
COMPLETE Buildings Ready for Demo	0	68 structures
Buildings Demolished or Removed	0	63 structures
Non-radioactive Waste Shipped	4.5 m ³	89.5 m ³
Transuranic/Transuranic Mixed (TRU/TRU-M) Shipped	1 m ³	4,078 m ³
LLW/MLLW Shipped	25 m ³	16,133 m ³

EMS Objectives and Target Status (Draft)

Objective #	Objective	Targets	Actions	Due Date	Status
18-EMS-PFP-OB1-T1	Minimize emissions resulting from demolition (including rubble management) of 234-5Z and 236Z.	Establish controls to minimize radioactive air emissions during PFP demolition activities and monitor the effectiveness of the controls.	Evaluate radioactive emissions on a weekly basis, identify if there are gaps in implementing the controls, and if the controls are effective when implemented. If problems are identified, ensure that prompt corrective actions are taken. Provide a monthly report on results and actions. 1. October Report 2. November Report 3. December Report 4. January Report 5. February Report	11/07/2017 12/07/2017 01/08/2018 02/07/2018 03/07/2018	100% 100% 100% 100% 100%

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	Current Month	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	2	N/A
Total Recordable Injuries	0	2	N/A
First Aid Cases	9	53	<p>5/2/18 – Employee developed wrist pain due to the tasks of the job, particularly keyboarding. (24796)</p> <p>5/2/18 – Employee was installing a gasket when employee stepped back. Foot landed on a piece of wood cribbing, causing a fall. The employee sustained neck pain and an abrasion to an elbow. (24795)</p> <p>5/8/18 – Employee tripped and fell over a berm, causing an abrasion to his arm, knee, and hip. (24803)</p> <p>5/15/18 – Employee cut finger while attempting to lock a gate with a bent key. (24812)</p> <p>5/17/18 – Employee swatted a wasp. Later on the way home, employee noticed swelling on the hand. Employee reported the sting the following day. (24823)</p>

	Current Month	Rolling 12 Month	Comment
			<p>5/22/18 – Employee stood from sitting at a table and stumbled. Employee fell, injuring hands and knees. (24831)</p> <p>5/23/18 – As employee entered building, the employee tripped over a rug, injuring knee. (24833)</p> <p>5/24/18 – Employee was working in a trailer that was abandoned and had developed a long-term leak resulting in mold. The employee developed a headache and congestion. (24837)</p> <p>5/29/18 – Employee was walking between buildings when the shoe lace of one boot caught the metal eyelet of the other, causing the employee to fall. (24839)</p>
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

RL-0011 Accomplishments

- Accomplishments to achieve stabilization following the December 2017 contamination event include:
 - Continued maintenance applications of fixative.
 - Routine radiological surveys.
 - Identified and began expanding the revised Radiological Buffer Area (RBA).
 - Extra radiological surveys when sustained winds were 20 miles per hour or greater.
 - Completed installation of a new trailer village outside the PFP RBA boundary.
- Continued implementation of new demolition requirements associated with the December 2017 contamination event. Efforts include:
 - Completed sewer isolations within an affected trailer village to support new radiological boundary implementation.
 - Received Expert Panel optioneering process comments and began incorporation to implement new controls for the resumption of demolition activities at PFP.
 - Initiated PRF super sack loadout.
 - Initiated retrieval of personal items from trailers within the new RBA.
 - Continued shipments of previously packaged waste.

MAJOR ISSUES

Issue:

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

Corrective Action:

Work was stopped after the second event, pending completion of pre-start resumption activities. Material relocation, waste shipments, and loading of the PRF super sacks continues to support enhanced radiological postings and resumption of demolition activities.

Status:

CHPRC continues to identify resumption requirements based on a finalized RCA and working with RL and regulators to implement resumption plans to enable demolition activities to resume.

- Some of the activities that were performed during May were:
 - Implementation of additional radiological monitoring (i.e., continuous air monitor (CAMs), cookie sheets).
 - Completed installation of the new trailer villages to house PFP personnel.
 - Mobilization of supplies and equipment to maintain the PFP footprint in a safe configuration.
 - Application of fixatives (i.e., paints, stabilization agents) to items and areas in the PFP work control zone.
 - Maintenance, repair, and rebuild of existing equipment and systems in a safe/compliant configuration.
 - Continued activities to reconfigure boundaries, canister transfer areas, loadout areas, and waste storage areas to accommodate a larger work control zone.
 - Reconfiguration of equipment in the PFP work control zone to support stabilization activities (water systems, foggers, etc.).
 - Initiated loadout of PRF super sack waste.
 - Initiated retrieval of personal items from trailers within the new RBA.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

- Increased Confidence
- No Change
- Decreased Confidence

Risk Title	Unmitigated Risk Impacts	Assessment		Comments															
		Month	Trend																
RL-0011/WBS-011.OA																			
Explanation of major changes to the project monthly stoplight chart:																			
Existing PFP DEMO risks were closed and removed from the stoplight report in May. The stoplight was updated with the project's current risks.																			
Realized Risks (Risks that are currently impacting project cost/schedule)																			
PFP-P-004: Stop Work From Concerned Workers	Concerned workers results in a stop work to address an off-normal or safety issues. The work cannot be restarted until the implementation of corrective actions is completed, resulting in schedule impacts to the project. Risk Handling Strategy: Accept Risk Handling Strategy: Probability: Very Likely (>90%) Worst Case Impacts: \$0, 52 days	●		<p>Risk Event: During resumption of PRF super sack loadout, a stop work was called from concerned workers on spotters for forklift operations.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr style="background-color: #cccccc;"> <th style="text-align: left;">Risk recovery action(s)</th> <th style="text-align: left;">FC Date</th> <th style="text-align: left;">%</th> </tr> </thead> <tbody> <tr> <td>Update communications as positions change.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Provide new maps, with entry/exit instructions when boundaries are revised.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Encourage additional worker involvement.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Increase frequency of post-job reviews.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Risk Action Assessment: A review was conducted to address worker concerns on qualified spotters. Management and the workforce discussed proper spotting qualifications and developed a path forward to ensure spotters were properly identified before returning to work. The stop work resulted in one lost day of progress for loading the super sack waste from PRF.</p>	Risk recovery action(s)	FC Date	%	Update communications as positions change.	Ongoing	N/A	Provide new maps, with entry/exit instructions when boundaries are revised.	Ongoing	N/A	Encourage additional worker involvement.	Ongoing	N/A	Increase frequency of post-job reviews.	Ongoing	N/A
Risk recovery action(s)	FC Date	%																	
Update communications as positions change.	Ongoing	N/A																	
Provide new maps, with entry/exit instructions when boundaries are revised.	Ongoing	N/A																	
Encourage additional worker involvement.	Ongoing	N/A																	
Increase frequency of post-job reviews.	Ongoing	N/A																	

<p>PFP-P-005: Unexpected Contamination Event within Established Boundaries</p>	<p>During operational activities (i.e. execution of characterization, monitoring, disposition of chemicals, and shipment) a loss of contamination control within the newly established boundary is experienced.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Low (10% to 25%)</p> <p>Worst Case Impacts: \$0, 64 days</p>			<p>Risk Event: On May 19, 2018, low-level contamination was discovered during routine surveys. RCTs detected the contamination a few feet outside of the RBA south of 19th Street and Camden Avenue, but within the work control boundary. Since being detected, the sample decayed to 279 disintegrations per minute (dpm)/100 cm². The area is now controlled as a contamination area (CA), and additional surveys are planned. No workers were contaminated.</p> <table border="1" data-bbox="850 352 1544 457"> <thead> <tr> <th>Risk recovery action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Conduct air modeling.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Conduct large particle modeling.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Analyze data and use it to establish new boundaries for PFP demolition zone.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Establish and maintain new radiological boundaries</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Risk Action Assessment: The area was posted as a CA pending further investigation. With the contamination being discovered within the work control boundary, no workers were contaminated in this event. Applicable surveys were performed and work was not impacted.</p>	Risk recovery action(s)	FC Date	%	Conduct air modeling.	Ongoing	N/A	Conduct large particle modeling.	Ongoing	N/A	Analyze data and use it to establish new boundaries for PFP demolition zone.	Ongoing	N/A	Establish and maintain new radiological boundaries	Ongoing	N/A
Risk recovery action(s)	FC Date	%																	
Conduct air modeling.	Ongoing	N/A																	
Conduct large particle modeling.	Ongoing	N/A																	
Analyze data and use it to establish new boundaries for PFP demolition zone.	Ongoing	N/A																	
Establish and maintain new radiological boundaries	Ongoing	N/A																	
<p>PFP-P1-001: Deterioration of Super Sack's within the PFP Demolition Zone</p>	<p>The 21 super sack packaged items (17 Strongbacks, two size-reduced glovebox bags, and two miscellaneous items) have deteriorated over the course of the past few months and need to be repacked or tarps installed prior to shipment to the Central Waste Complex (CWC).</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Low (10% to 25%)</p> <p>Worst Case Impacts: \$0, 20 days</p>			<p>Risk Event: During loadout of the super sacks, liquid was identified in four super sacks. The super sacks had degradation and through weather events and fixative application, liquid had accumulated in the sacks.</p> <table border="1" data-bbox="850 674 1544 758"> <thead> <tr> <th>Risk recovery action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Initiate work package early in planning phase to install tarps.</td> <td>Complete</td> <td>100%</td> </tr> <tr> <td>Procure non long-lead tarps in the event tarps are required.</td> <td>Complete</td> <td>100%</td> </tr> <tr> <td>Procure pumps to remove liquid from super sacks</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Risk Action Assessment: Hand pumps have been ordered and the work package will be revised to allow for pumping of liquid. This will allow for super sacks to be loaded into compliant shipping packages and will result in minimal impact to super sack loadout schedule.</p>	Risk recovery action(s)	FC Date	%	Initiate work package early in planning phase to install tarps.	Complete	100%	Procure non long-lead tarps in the event tarps are required.	Complete	100%	Procure pumps to remove liquid from super sacks	Ongoing	N/A			
Risk recovery action(s)	FC Date	%																	
Initiate work package early in planning phase to install tarps.	Complete	100%																	
Procure non long-lead tarps in the event tarps are required.	Complete	100%																	
Procure pumps to remove liquid from super sacks	Ongoing	N/A																	
<p>Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)</p>																			
<p>FY2018 Risk Triggers (Risk could be realized in FY2018)</p>																			
<p>PFP-P1-003: Weather Impacts During Stabilization, Waste Disposition, & Support</p>	<p>Inclement weather, including moderate winds, low or high temperatures, and thunderstorms will result in in-scope unplanned work and result in schedule impacts to the project.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Low (10% to 25%)</p> <p>Worst Case Impacts: \$0, 24 days</p>			<p>Risk Trigger: When sustained wind speeds are greater than 20 mph or gusts are above 30 mph, work will be stopped pending radiological surveys to confirm no contamination has spread beyond established boundaries.</p> <table border="1" data-bbox="850 1045 1544 1094"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Plan for 80% T.O.E.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: Wind has continued to impact progress on resumption activities at the expected rate. Surveys are being conducted more efficiently and are resulting in less time to recover from wind events, allowing work to resume sooner following an event.</p>	Mitigation action(s)	FC Date	%	Plan for 80% T.O.E.	Ongoing	N/A									
Mitigation action(s)	FC Date	%																	
Plan for 80% T.O.E.	Ongoing	N/A																	
<p>High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)</p>																			
<p>No high threat risks identified in May.</p>																			
<p>Unassigned Risks (Pending ownership of identified risks/opportunities)</p>																			
<p>No unassigned risks identified in May.</p>																			

PROJECT BASELINE PERFORMANCE

Current Month

(\$M)

WBS 011/RL-0011 Nuclear Matl Stab & Disp PFP	Budgeted Cost of Work Scheduled (BCWS)	Budgeted Cost of Work Performed (BCWP)	Actual Cost of Work Performed (ACWP)	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	0.0	0.0	6.4	0.0	0.0%	(6.4)	-24,293.8%

Numbers are rounded to the nearest \$0.1 million.

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

The CM schedule variance is within threshold.

CM Cost Variance: (-\$6.4M/-24,293.8%)

The current month negative cost variance is due to the resumption actions and implementation of the new demolition requirements associated with a December 2017 contamination event. This includes fixative applications, performance of radiological surveys, and stabilization activities to support resumption of PFP demolition. This also includes additional material and equipment purchases to support the revised demolition approach. As resumption corrective actions are performed, costs for labor, subcontracts, and material purchases add to the current month variance. Assignment of Jacobs Engineering corporate resources and reassignment of CHPRC personnel to support the RCA and programmatic assessments have also contributed to the variance. In addition, the resulting delay in demolition activities from the contamination event are causing an extension of unplanned project management, min-safe, and support resources.

Contract-to-Date

(\$M)

WBS 011/ RL-0011 Nuclear Matl Stab & Disp PFP	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Estimate to Complete (ETC)	Variance at Completion (VAC)
Total	988.7	973.0	1,114.8	(15.7)	-1.6%	(141.8)	-14.6%	988.7	1,197.9	83.1	(209.3)

Numbers are rounded to the nearest \$0.1 million.

Contract-to-Date (CTD) Schedule Variance (-\$15.7M/-1.6%)

The CTD schedule variance is within threshold.

CTD Cost Variance (-\$141.8M/-14.6%)

The negative CTD cost variance is primarily a result of prior year unrecoverable costs, as well as impacts to the D&D work scope and extending level of effort (LOE) support services. Unplanned costs to support implementation of schedule efficiency initiatives at PFP (i.e. foaming, Perma-Fix Northwest [PFNW] size reduction support, implementation of the PremAire Breathing system), increased training costs of additional Health Physics Technicians (HPT) and D&D workers assigned to PFP, additional resources to recover schedule for asbestos removal activities and to support the unplanned asbestos identified for removal (about 10,000 feet), unplanned shipping materials (waste shipping containers TL-1800s, SLB2s, IP-1 bags, etc.) required to support waste loadout activities for transuranic (TRU) waste disposition

efforts, and unplanned work to reconfigure the High-density polyethylene (HDPE) water loop to support the new radiological boundaries also contributed to this variance.

Other contributors to the negative cost variance include resumption actions associated with the December 2017 contamination event which included fixative applications, performance of radiological surveys, stabilization activities to support resumption of demolition of PFP. Assignment of Jacobs Engineering corporate resources and reassignment of CHPRC personnel to support the RCA and programmatic assessments have also contributed to the variance.

The negative cost variance is partially offset by using fewer breathing air suits and hoses than originally planned for 242-Z entries. This is a result of fewer field work team members being required to perform hands-on work in 242-Z because of the confined space and number of suits (three suits per day versus five). In addition, there were recognized efficiencies where crews were able to complete process vacuum removal in 291-Z with less effort than originally planned. Characterization results indicated lower levels of hold-up than planned, which allowed more efficient piping removal. Isolations of the 291-Z Facility were performed more efficiently than planned due to the main electrical power being disconnected outside of the building rather than performing individual isolations within the facility. Hazardous material removal, stabilization, and decontamination was more efficient than originally planned. (i.e., using powerful fans to assist with vertical fixative flow up the stack).

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

Variance at Completion (-\$209.3M/-21.2%)

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

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

Finally, overtime was used to ready the 234-5Z Facility for demolition by September 2017. Also, unplanned work on the HDPE water loop is contributing to this variance. This unfavorable variance is partially offset by recognized efficiencies due to characterization data in the 234-5Z duct level, allowing piping and ducting to be left in place for demolition and the 291-Z demolition activities. The estimate at completion (EAC) and VAC is reflective of the projected date to reach slab-on-grade in April 2019. The EAC and VAC are reflective of resumption activities and revised demolition approach implementation.

Contract Performance Report Formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST (\$M)

WBS 011/RL-0011 Nuclear Matl Stab & Disp PFP	FY2018		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	80.0	78.9	1.2
Incremental Scope Pending Change Management	0.0	0.0	0.0
RL-0011 - Total	80.0	78.9	1.2

Numbers are rounded to the nearest \$0.1 million

Funds/Variance Analysis

Fiscal year (FY) 2018 expected required funding for the project breakdown structure (PBS) RL-0011 is \$78.9 million to allow for recovery actions and continuation of demolition activities to achieve slab-on-grade. Projected funding is \$80.0 million.

Critical Path Schedule

The PFP Critical Path schedule begins with the continuation of resumption activities related to the December contamination event. This will run in parallel with the loading of the super sack waste. Once the super sacks are loaded, debris disposition of the 234-5Z rubble piles will resume starting with the frontside waste. Once the waste debris is loaded out, demolition will resume on the remaining sections of zones 2 and 7, with the exception of the drain line. Remote Mechanical C (RMC) process line demolition, Remote Mechanical A (RMA) process line demolition, and loadout of glovebox HA-46 will come next, in parallel with completion of the basement of 234-5Z demolition. The 234-5Z demolition is projected to complete February 11, 2019. The 236-Z canyon demolition will then resume with completion scheduled for April 11, 2019, meeting the requirements for the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Milestone M-083-00A – PFP Facility Transition and Selection Disposition Activities. Completion of demolition is followed by site stabilization and demobilization, turnover to surveillance and maintenance, and project closeout activities completing July 25, 2019.

MILESTONE STATUS

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

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-083-00A	PFM Facility Transition and Selection Disposition Activities	09/30/17		04/11/19	On Friday, December 15, 2017, swing shift RadCon personnel performing routine surveys following the day shift demolition activities discovered low-level contamination on a cookie sheet. This led to a wider search, and a “speck” of contamination was smeared from a government vehicle. A CHPRC management stop work on demolition activities was declared and a critique held to discuss the contamination spread, possible causes, and a path forward. An RCA has been conducted and resumption actions and expected completion have been established. 154 days were lost on the schedule in May due to identified corrective actions required to resume demolition activities at PFM.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

Contract Section	Project	GFS/I	Status
CONTRACT			
J.12/C.2.2, C.2.3	PBS RL-0011, Plutonium Finishing Plant Closure Project	Offsite transportation of radioactive material: RL provides equipment and government drivers to transport TRU materials outbound/inbound between the Hanford Site and PFNW locations. RL is the authorized shipper and acts as signatory on the shipping papers, and ensures DOE Manual 460.2-1 is complied with. RL arranges for Commercial Motor Vehicle Safety Alliance (CVSA) level VI vehicle inspections and verifies that the government drivers meet the applicable Department of Transportation (DOT) Federal Motor Carrier Safety Regulations (49 CFR 382 and 383). RL also inspects the load securement to ensure compliance with DOT regulations and/or Transportation Safety Document (TSD) requirements.	Ongoing

DOE ACTIONS / DECISIONS

None at this time.

Section B

Spent Nuclear Fuel Stabilization and Disposition (RL-0012)

CH2MHILL
Plateau Remediation Company



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

May 2018
CHPRC-2018-05, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

The DOE Operational Readiness Review (ORR) was completed on April 17, 2018. After successful closeout of pre-start findings and corrective actions, request for DOE approval of critical decision (CD)-4 for the C.1-1, Sludge Retrieval Project Line Item 15-D-401 was submitted to DOE, on May 10, 2018. CD-4 Approve Start of Operations, was approved on May 22, 2018. The project is forecast to begin sludge removal in mid-June.

Project breakdown structure (PBS) RL-0012 scope is 97.7 percent complete, with a cumulative schedule performance index (SPI) of 1.00 and a Cost Performance Index (CPI) of 1.04.

EMS OBJECTIVES AND TARGET STATUS

None currently identified.

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	CM Quantity	Rolling 12 Month	Comment
Dart Injuries	0	1	N/A
Recordable Injuries	0	0	N/A
First Aids	2	14	<ul style="list-style-type: none"> 5/16/18 – Employee was performing surveys when a stick from a birds nest penetrated gloves, poking employee in finger. (24819) 5/30/18 – Employee turned and tripped over a chair, causing a fall to the knees that resulted in back pain. (24847)
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

100K Operations

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

KW Basin Sludge Removal Capital Asset Project

- The 100K Operations support team performed preventive maintenance and calibrations on both Engineered Container Retrieval and Transfer System (ECRTS) components and Annex Utility System components.
- Request for approval of CD-4, Approve Start of Operations, was submitted to RL on May 10, 2018. DOE-HQ approved CD-4 on May 18, 2018.
- DOE-RL transmitted approval of CD-4, Approval Start of Operations, to CHPRC on May 22, 2018.
- Receipt and preparation of Sludge Transport & Storage Container (STSC) 1 started in May.

T Plant Preparations

- The startup approval letter was approved and issued by the CHPRC president on February 12, 2018. Due to delays in completing contractor ORR activities at the 105KW facility, T Plant personnel re-performed an operations demonstration validating staff proficiency.

MAJOR ISSUES

Issue:

CHPRC is planning to complete the first shipment of sludge from 105KW Basin to T Plant on June 28, 2018, which would achieve performance measure PM-12-2-18 (June 30, 2018). Given the minimal remaining float, CHPRC management is monitoring both the cost and schedule associated with this work.

Corrective Action:

CHPRC completed the contractor ORR in March. The DOE ORR was completed in April. CHPRC submitted the request for authorization to startup letter and DOE approved the Request for Startup on May 22, 2018.

Status:

The performance measure continues to be in jeopardy of being achieved by June 30, 2018.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

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

	Unmitigated Risk Impacts	Assessment		Comments												
		Month	Trend													
RL-0012/WBS-012																
Explanation of major changes to the project monthly stoplight chart:																
No major changes to the stoplight chart in May. However, risk STP-154, <i>ORR Results in Delays to the Project</i> , and STP-155, <i>CD-4 Approval Takes Longer than Planned</i> , were closed per authorization for startup from DOE, and will be removed from the stoplight report next month.																
Realized Risks (Risks that are currently impacting project cost/schedule)																
STP-154: ORR Results in Delays to the Project	Impacts stemming from the contractor ORR, the DOE ORR, or a combination of the two impacts the project’s operational activities and jeopardizes the project’s ability to achieve PM-12-2-18, due June 30, 2018. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$216K, 24 days	●	↑	Risk Event: Execution of the contractor ORR and execution of the DOE ORR. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #f2f2f2;"> <th style="width: 80%;">Risk recovery action(s)</th> <th style="width: 10%;">FC Date</th> <th style="width: 10%;">%</th> </tr> </thead> <tbody> <tr> <td>Complete necessary preventative maintenance and calibration activities prior to re-initiation of the contractor ORR and prior to initiating the DOE ORR.</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> <tr> <td>Continue performing operation demonstrations in presence of senior supervisor watches, with the intent on identifying and resolving emergent challenges.</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> </tbody> </table> Risk Action Assessment: The contractor ORR was completed on March 6, 2018. The DOE ORR was completed on April 17, 2018. The project addressed the DOE ORR pre-start findings and submitted the request for authorization to startup letter to RL on May 10, 2018 (CHPRC- 1801857 R1). Formal authorization from DOE was received on May 22, 2018, through the “Office of Environmental Management Approval for Startup of the Engineered Container Transfer System” email (Correspondence No. 1802002). This risk was closed in May, as it no longer presents a threat to the project (per the “Office of Environmental Management Approval for Startup of the Engineered Container Transfer System”, email [Correspondence No. 1802002]). It will be removed from the stoplight prior to next month’s report being finalized.	Risk recovery action(s)	FC Date	%	Complete necessary preventative maintenance and calibration activities prior to re-initiation of the contractor ORR and prior to initiating the DOE ORR.	Complete	100	Continue performing operation demonstrations in presence of senior supervisor watches, with the intent on identifying and resolving emergent challenges.	Complete	100			
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Continue performing operation demonstrations in presence of senior supervisor watches, with the intent on identifying and resolving emergent challenges.	Complete	100														
STP-151: Leak Tightness of Sludge Transportation System Casks	A failed leak test of the Sludge Transportation System (STS) Cask could result in in-scope unplanned work and significant schedule delays not assumed in the Sludge Removal Project (SRP) baseline. Risk Handling Strategy: Control Probability: Very Low (<10%) Worst Case Impacts: \$1,000K, 48 days	●	↑	Risk Event: Although the project has not realized a failed cask leak rate test, the results are trending negative and project management has determined it may be necessary to take additional mitigation action. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #f2f2f2;"> <th style="width: 80%;">Risk recovery action(s)</th> <th style="width: 10%;">FC Date</th> <th style="width: 10%;">%</th> </tr> </thead> <tbody> <tr> <td>Verify that both casks can pass the leak test criteria prior to initiating sludge removal operations.</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> <tr> <td>Institute procedural controls that maintain cask sealing surfaces in a condition that leak tightness is not compromised.</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> <tr> <td>Procure a replacement cask lid if a negative leak rate trend is observed.</td> <td style="text-align: center;">9/30/18</td> <td style="text-align: center;">5%</td> </tr> </tbody> </table> Risk Action Assessment: A procurement order has been processed to procure a new STS Cask Lid. Cask 2 will not be used until the new lid has been received and successfully leak tested.	Risk recovery action(s)	FC Date	%	Verify that both casks can pass the leak test criteria prior to initiating sludge removal operations.	Complete	100	Institute procedural controls that maintain cask sealing surfaces in a condition that leak tightness is not compromised.	Complete	100	Procure a replacement cask lid if a negative leak rate trend is observed.	9/30/18	5%
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Procure a replacement cask lid if a negative leak rate trend is observed.	9/30/18	5%														
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)																
No critical risks identified in May.																

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

FY2018 Risk Triggers (Risk could be realized in FY2018)

<p>STP-018-O: STP Operational Upset or Spill - During first STSC</p>	<p>An operational upset or spill results in a work shutdown at K Basin, resulting in schedule delays. Risk Handling Strategy: <i>Accept</i> Probability: Very Low (<10%) Worst Case Impacts: \$2 million, 48 days</p>			<p>Risk Triggers: An operational upset or spill results in work shutdown at K Basin. This risk will commence in fiscal year (FY) 2018 and continue throughout the project lifecycle until the sludge is removed from 105KW Basin.</p> <table border="1" data-bbox="885 399 1567 777"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Conduct rigorous startup testing following system installation at the 105KW Basin and Annex.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Conduct testing and training at Maintenance and Storage Facility (MASF) and develop procedures that use the information and knowledge gained during the activity for use at the KW Basin.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Installation of camera systems to allow operations and radiation protection management to monitor operation dry runs to ensure appropriate discipline and personal protective equipment (PPE) are used to complete STSC connect/disconnect evolutions is in process.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Evaluation of the potential for installation of camera systems to allow Operations and Radiation Protection Management to monitor testing and operation dry runs to ensure appropriate discipline and PPE are used to complete STSC connect/disconnect evolutions.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p>Mitigation Assessment: No major changes in <i>May</i>. Training, procedure development, and RSA affidavits were completed. <i>DOE authorized</i> sludge removal operations on <i>May 22, 2018</i>, through the "Office of Environmental Management Approval for Startup of the Engineered Container Transfer System" email (Correspondence No. 1802002).</p>	Mitigation action(s)	FC Date	%	Conduct rigorous startup testing following system installation at the 105KW Basin and Annex.	Complete	100	Conduct testing and training at Maintenance and Storage Facility (MASF) and develop procedures that use the information and knowledge gained during the activity for use at the KW Basin.	Complete	100	Installation of camera systems to allow operations and radiation protection management to monitor operation dry runs to ensure appropriate discipline and personal protective equipment (PPE) are used to complete STSC connect/disconnect evolutions is in process.	Complete	100	Evaluation of the potential for installation of camera systems to allow Operations and Radiation Protection Management to monitor testing and operation dry runs to ensure appropriate discipline and PPE are used to complete STSC connect/disconnect evolutions.	Complete	100
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<p>STP-073-C: Processing Efficiency - Retrieval & Shipping</p>	<p>The realized processing efficiency associated with sludge retrieval and shipping operations does not match the baseline plan.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Likely (75% to 90%) Worst Case Impacts: \$1,000K, 90 days</p>			<p>Risk Triggers: Actual processing efficiency associated with sludge retrieval and shipping operations does not match baseline assumptions. In addition, Management Directive (MD) PRC-MD-RP-53085, Suspension of 67 percent Confidence Level Surveys, was issued. The MD requires that radiological clearance surveys “shall be at the 95 percent confidence level” and implemented with oversight provided by radiological protection management or health physicists, potentially increasing overall STSC processing times. This risk will commence in FY2018, beginning with operations campaign.</p> <table border="1" data-bbox="891 415 1570 556"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Establish a Production Control Center to facilitate maximum efficiency integrating SRP operations and maintenance activities.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Review operations and maintenance activities required to produce each sludge STSC and establish a “typical” schedule integrating all activities in the most efficient sequence possible.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p>Mitigation Assessment: No major changes in <i>May</i>. Project personnel are working on a revised plan to establish the appropriate campaign schedule, taking into account ion exchange module (IXM) change outs and performance of preventive maintenance activities.</p>	Mitigation action(s)	FC Date	%	Establish a Production Control Center to facilitate maximum efficiency integrating SRP operations and maintenance activities.	Complete	100	Review operations and maintenance activities required to produce each sludge STSC and establish a “typical” schedule integrating all activities in the most efficient sequence possible.	Complete	100															
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<p>STP-155: CD-4 Approval Takes Longer than Planned</p>	<p>DOE O-413.3B, CD-4 Submittal approval takes longer than planned in the baseline.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Low (10% to 25%) Worst Case Impacts: \$1,00K, 45 days</p>			<p>Risk Triggers: RL review/approval of the CHPRC CD-4 Project Closeout Submittal.</p> <table border="1" data-bbox="891 798 1570 1024"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Meet with RL to discuss and agree upon expectations for DOE O-413.3B, CD-4 submittal content.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Obtain an example of a DOE O-413.3B, CD-4 submittal that has recently been reviewed/approved by DOE HQ.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Prepare a draft of the SRP CD-4 submittal.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Solicit and incorporate RL comments.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Submit final draft of SRP CD-4 submittal for RL review.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Complete contractor ORR and DOE ORR.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Submit final SRP CD-4 submittal.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p>Mitigation Assessment: No major changes in <i>May</i>. All actions that can be taken to positively influence risk avoidance have been taken.</p> <p>This risk was closed in <i>May</i>, as it no longer presents a threat to the project (per the “Office of Environmental Management Approval for Startup of the Engineered Container Transfer System”, email [Correspondence No. 1802002]). It will be removed from the stoplight prior to next month’s report being finalized.</p>	Mitigation action(s)	FC Date	%	Meet with RL to discuss and agree upon expectations for DOE O-413.3B, CD-4 submittal content.	Complete	100	Obtain an example of a DOE O-413.3B, CD-4 submittal that has recently been reviewed/approved by DOE HQ.	Complete	100	Prepare a draft of the SRP CD-4 submittal.	Complete	100	Solicit and incorporate RL comments.	Complete	100	Submit final draft of SRP CD-4 submittal for RL review.	Complete	100	Complete contractor ORR and DOE ORR.	Complete	100	Submit final SRP CD-4 submittal.	Complete	100
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Unassigned Risks (Pending ownership of identified threats/opportunities)

CHPRC proposed five risks that are outside of CHPRC’s ability to manage and, as such, should be re-assigned to RL (STP-011D, STP-018, STP-073, STP-073-A, and STP-073-B). The proposal was not accepted by RL, stating, “the opportunities and threats appear to be under the control of CHPRC to manage”. CHPRC submitted letter CHPRC-1602146 R1 on August 30, 2016, in response to RL’s rejection letter.

CHPRC processed BCR-PRC-18-016R0, *Incorporate Remaining FY2018 Work Scope for CO 327 Accelerating the Shipment of Sludge*, to ensure that the project reflected the assumed scope to be completed within the current period of performance (five STSCs transported to T Plant by September 30, 2018).

PROJECT BASELINE PERFORMANCE

Current Month

(\$M)

RL-0012 Spent Nuclear Fuel Stabilization and Disposition	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	3.4	3.2	4.0	(0.3)	-7.8%	(0.9)	-27.5%

Numbers are rounded to the nearest \$0.1 million

CM Schedule Performance (-\$0.3M/-7.8%)

The variance is within reporting thresholds.

CM Cost Performance (-\$0.9M/-27.5%)

The current month cost variance is the result of delay in completion of readiness activities and the contractor ORR, which required additional time and resources. This resulted in a delay to the start of the DOE ORR, which completed on April 17, 2018. The CD-4 submittal package and Request for Startup Letter were approved by DOE and received by CHPRC on May 22, 2018.

Contract-to-Date

(\$M)

RL-0012 Spent Nuclear Fuel Stabilization and Disposition	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Estimate to Complete (ETC)	Variance at Completion (VAC)
Total	728.8	728.4	699.7	(0.4)	-0.1%	28.7	3.9%	745.4	718.0	18.3	27.4

Numbers are rounded to the nearest \$0.1 million

CTD Schedule Performance (-\$0.4M/-0.1%)

The variance is within reporting thresholds.

CTD Cost Performance (+\$28.7M/+3.9%)

The variance is within reporting thresholds.

Variance at Completion (+\$27.4M/+3.7%)

The variance is within reporting thresholds.

Contract Performance Report Formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST (\$M)

RL-0012 Spent Nuclear Fuel Stabilization and Disposition	FY2018		Variance
	Projected Funding	Spending Forecast	
Expense – Spending Forecast	41.9	38.5	3.5
Incremental Scope Pending Change Management	0.0	0.0	(0.0)
Expense – Subtotal	41.9	38.5	3.5
Line Item (LI)	18.8	17.9	0.9
Incremental Scope Pending Change Management	0.0	0.0	(0.0)
LI – Subtotal	18.8	17.9	0.9
RL-0012 – Total	60.7	56.4	4.4

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis

FY2018 funding for PBS RL-0012 is \$60.7 million. Positive variance of \$3.5 million in expense funding is based on revised funding levels in the Central Plateau control point provided by RL in March 2018. Positive variance in the LI is the result of efficiencies gained due to acceleration of the installation activities and risk mitigation efforts, reducing the need for contingency and management reserve.

Critical Path Schedule

The project critical path schedule runs through receipt and preparation of STSC 1. The project schedule reflects the completion of retrieval operations, including the filling of STSCs with sludge and transporting them to T Plant, to complete Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) milestone M-016-176, Complete Sludge Removal from 105KW Fuels Storage Basin, is required by December 2019.

MILESTONE STATUS

Tri-Party Agreement milestones represent significant events in project execution. RL Enforceable Agreement (EA) milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The performance measurement baseline (PMB) annual update, implemented in September 2013, and subsequently approved baseline change requests (BCRs) define CHPRC planning with respect to Tri-Party Agreement milestones. The following table shows the Tri-Party Agreement milestone within the CHPRC contract period (September 30, 2018).

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-016-175	Begin Sludge Removal from 105KW Fuel Storage Basin.	9/30/2018		6/05/2018	The forecast date does not include schedule margin from the project's risk analysis.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL Issue Findings / Discrepancy List	04/18/18 (A)	05/01/18 (A)
HQ Approve CD-4 Submittal Package	05/14/18 (A)	05/22/18 (A)
RL Approve Request for Startup Letter	05/10/18 (A)	05/22/18 (A)

Section C

Solid Waste Stabilization and Disposition (RL-0013)

CH2MHILL
Plateau Remediation Company



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

May 2018
CHPRC-2018-05, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

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

M. A. Wright
Vice President for
Project Technical
Services

PROJECT SUMMARY

During the May reporting period, April 23 – May 27, 2018, Waste and Fuels Management Project (W&FMP) maintained facilities in a safe and compliant condition. Overall, the project continues to deliver ongoing efficiencies that were identified in the fiscal year (FY) 2012-2013 time frame, but continues to be impacted by emerging work and realized risks. The River Risk Management Project (RRMP) continued operations at the Environmental Restoration Disposal Facility (ERDF) and initiated subcontracts for permit modifications and facility modifications at the Integrated Disposal Facility (IDF).

This month:

- Management of Cesium and Strontium Capsule (MCSC) Project: Work continues on the preliminary design for the Cask Storage System (CSS) and the Capsule Storage Area (CSA) pad. Comments are being incorporated into the final Preliminary Design Report (PDR) for CSS and the subcontractor has submitted the final draft of the preliminary design report for CHPRC review for the CSA pad design. The Record of Decision (ROD) amendment was signed May 14, 2018, and issued on May 18, 2018, allowing site preparation and mobilization of the geotechnical subcontractor. One 25 feet (ft) borehole and one 50 ft borehole were completed as of May 24, 2018; a total of seven boreholes are planned.
- At T plant, the sludge receipt team initiated the Sludge Operations Start-up. The team completed the relocation of Cask 1 from the tunnel to 2706T pad in preparation for the first shipment of retrieved sludge from 100K; the first Sludge Transport & Storage Container (STSC) and trailer was transported to 100K Annex to be filled.
- The project continues detailed planning for FY2019-FY2021.

EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
18-EMS-WFMP-OB1-T1	Reuse equipment from West Valley DOE site/conservate resources/minimize waste.	Reuse West Valley equipment for cesium (Cs) and strontium (Sr) capsule storage. Receive, manage, and utilize equipment as received.	9/30/18	45%
18-EMS-WFMP-OB2-T1	Chemical management compliance.	Evaluate the process for chemical management at Canister Storage Building (CSB) and T Plant. Perform an assessment on chemical inventory locations.	9/30/18	25%
18-EMS-WFMP-OB3-T1	Improve compliance.	Identify implementing mechanisms and gaps for low-level burial ground (LLBG) compliance matrix requirements at the project level.	9/30/18	0%
18-EMS-WFMP-OB4-T1	Reduce environmental impact of contaminants along the Columbia River and minimize accompanying risks.	Complete T Plant RA and Master Documented Safety Analysis (MDSA) Revision 12 implementation in order to prepare for sludge receipt at T Plant.	9/30/18	100%

Objective #	Objective	Target	Due Date	Status
18-ERDF-OB1-T1	Conserve resources/waste minimization	Procure and use metal liner substitutes for the macro-encapsulation treatment of waste instead of using functional roll-on/roll-off (RO/RO) waste containers as sacrificial containers.	9/30/18	40%
18-ERDF-OB2-T1	Improve compliance/pollution prevention	Monitor and evaluate universal waste (UW) and recycling accumulation areas for compliance with CHPRC procedures.	9/30/18	40%

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	2	N/A
Total Recordable Injuries	0	0	N/A
First Aid Cases	4	17	<p>5/2/18 – Employee felt neck pain after pulling tarps on and off ERDF cans. (24800)</p> <p>5/14/18 – Employee got sliver in right hand when sliding hand down handrail. (24811)</p> <p>5/21/18 – Employee was climbing down the scaffold when they lost footing, slipped off ladder rung, and fell. Scraped left forearm and backside of torso. (24826)</p> <p>5/31/18 – Employee noticed a contusion on left elbow. Unknown cause. (24848)</p>
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

13.01 Project Management

- o Performed/Completed:
 - The project continued detailed planning for FY2019-FY2021 in support of DOE's out-year planning.
 - Current Consent Agreement and Final Order (CAFO) document development status: On April 16, 2018, Ecology identified additional changes to the Sampling and Analysis Plan

(SAP) portion of the CAFO closure plans. The additional changes relate to statistical analyses. CHPRC personnel met with RL on May 17, 2018, to agree on a path forward. An additional meeting is scheduled with Ecology on June 4, 2018, to attempt resolution of their concerns.

13.02 Capsule Storage & Disposition

- o Performed/Completed:
 - Two Waste Encapsulation and Storage Facility (WESF) operational drills.
- o Completed Surveillances/Preventive Maintenance (PM):
 - 50 PM packages.

13.03 Canister Storage Building (CSB)

- o Performed/Completed:
 - One operational drill at CSB.
 - Hanford Fire Marshal and CHPRC Fire Protection Engineering approvals for the Fire Water Pump House (FWPH) System Modification Analysis. The analysis will allow changing the classification of the FWPH systems to a Service Water System after completion of implementation actions.
 - Review of 60 percent design and submittal of Review Comment Record (RCR) comments to subcontractor for AH-004 upgrades.
- o Completed Surveillances/PMs:
 - 27 PM packages.

13.06 Transuranic (TRU) Repackaging

- o Repackaging:
 - One shipment of M-091 legacy suspect transuranic mixed (TRUM) waste was shipped to Perma-Fix Northwest (PFNW) from the Central Waste Complex (CWC). Once returned, it will contribute 43.5 cubic meters (m³) toward the next volumetric objective, bringing the total to date to 222.8m³.

13.07 Waste Receiving and Processing (WRAP)

- o Performed/Completed:
 - Repair of 2404WB roof.
- o Completed Surveillances/PMs:
 - 208 surveillances.
 - 20 PM packages.

13.08 T Plant

- o Performed/Completed:
 - Relamping of 221T and 271T.
 - Installation of new ramp at section 20 to resolve safety concerns.
- o Completed Surveillances/PMs:
 - 444 surveillances.
 - 29 PM packages.

Sludge Receipt

- o Performed/Completed:
 - Transport of first STSC and trailer to 100K Annex for sludge retrieval.
 - Relocation of Cask number 1 from tunnel to 2706T Pad.

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

- o Performed/Completed:
 - 2402WI lighting upgrades.
 - Roof repairs to 2402W.
 - Replacement of containment High Efficiency Particulate Air (HEPA) Vacuum and Component (VAC) at 4C Burial Ground.
 - Replacement of flow meter TR34-SP-F1-1 at Trench 34.

- o Completed Surveillances/PMs:
 - 345 surveillances.
 - 36 PM packages.
- o Shipments received:
 - Five drums from the Plutonium Finishing Plant (PFP) into CWC in four shipments.

13.15 TRU Disposition

- o Performed/Completed:
 - Review of the first transuranic (TRU) waste stream. A conference call with Central Characterization Project (CCP) to discuss the chemical and oxidizer evaluation was held May 21, 2018. Comments on Hanford's document were favorable.

13.16 Offsite Spent Nuclear Fuel Disposition

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

13.21 Mixed Waste Disposal Trenches (MWT)

- o Completed surveillances/PMs:
 - 155 surveillances.
- o Shipments received:
 - Five boxes from PFNW into MWT34 in one shipment.
 - Eight boxes from PFNW into MWT31 in four shipments.

13.24 Management of Cesium and Strontium Capsules Project

- o Performed/Completed:
 - CSA Design: Architect/Engineer (AE) subcontractor continues to work on the final design. The final draft of the preliminary design report was provided to CHPRC for review.
 - WESF Modifications Design: AE subcontractor continued preliminary design activities for the WESF Modifications.

13.25 Capsules Interim Storage Operations

- o Performed/Completed:
 - CSS design: NAC continues to work on the CSS final design. Comments are being incorporated into the final Preliminary Design Report (PDR). NAC completed a workshop with WESF facility personnel to get feedback on the operation of all transfer equipment.
 - Engineering: Work continues on the fabrication of the new Pass-Through Gauge to complete capsule dimension checks.
 - Site Investigation: The geotechnical subcontractor initiated mobilization of equipment and site preparation on May 16, 2018. One 25 ft borehole and one 50 ft borehole were completed as of May 24, 2018. A total of seven boreholes are planned.
 - Environmental: Supplemental design information has been transmitted to RL for submittal to Ecology. The information was requested by Ecology in support of their Resource Conservation and Recovery Act of 1976 (RCRA) Permit incompleteness determination.

River Risk Management Project

13.10 Environmental Restoration Disposal Facility (ERDF)

- o Received 18,323 tons in May.
- o Received 113,551 tons fiscal year-to-date (FYTD).
- o Continued full dress in-field mockups to prepare for the disposal of PFP waste, ensuring the implementation of PFP lessons learned.
- o Successfully completed Hazard Review Board (HRB) and management assessment of enhanced airborne radioactivity area (ARA) dump controls for PFP waste.
- o Mobilized and setup a non-standard crane for disposal of long length items (LLI).
- o Off-loaded one LLI with the crane for disposal.

13.12 Integrated Disposal Facility (IDF)

- o Care & Custody
 - Completed transition from W&FMP over to RRMP.
 - Performed/completed May monthly inspections.
- o IDF Operational Readiness
 - Initiated subcontract procurement for permitting personnel to support IDF RCRA permit modifications.
 - Initiated conceptual final cover design for the RCRA permit addenda.
 - Initiated preparation of the statement of work (SOW) for the subcontract to design the facility modifications and site infrastructure.

Project Technical Services (PTS) Support

- o Project Delivery:
 - CSB Air Handling unit 004:
 - Completed construction phase work package preparation.
 - Roofing repairs at CWC and WRAP:
 - Commenced work on 2403-WA.
- o Emergency Preparedness:
 - Completed ERDF-EPDP-041918 drill report for Protective Action Credit.
 - Completed WESF and CSB/ISA Building Emergency Plans' Annual Reviews.
 - Completed ISA EPHA/EAL Annual Review.

MAJOR ISSUES

Issue:

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

Corrective Action:

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

Status:

RL provided a justification to Ecology for why an EA was not needed on July 10, 2017.

A revised permitting strategy was issued by RL and Ecology, which agrees that additional SEPA coverage is not required and RL will issue a ROD amendment. The MCSC project ROD amendment was approved on May 14, 2018. Approval of the ROD amendment closes this issue.

Issue:

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

Corrective Action:

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

Status:

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

Issue:

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

Corrective Action:

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

Status:

CHPRC and RL met with Ecology inspectors regarding this item, and the parties agreed to elevate the issue to management for resolution. Ecology is working through the rule-making process to incorporate these requirements into the regulations but continues to identify this issue in recent inspections. The project is supporting RL in its response and continues to await RL direction.

Issue:

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

Corrective Action:

Significant risk remains. TRU disposition activities would prepare the contents of these containers in a configuration suitable for eventual disposal at the Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico. The configuration would also mitigate/eliminate the risk and additional cost for long-term management of these containers.

Status:

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

Issue:

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

Corrective Action:

The WAC requires the corrective action to be accomplished “within 90 days of the purveyor notifying the consumer ...” or “In accordance with an alternate schedule acceptable to the purveyor.” MSA has worked with affected facilities and RL to develop corrective actions that minimize impacts to ongoing cleanup milestones.

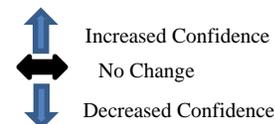
Status:

RL provided direction to MSA to remedy the majority of the issue with a modification at the source by MSA versus modifications at each facility. Description and preliminary schedule for WESF potable water facility modifications is required, unless RL approves an alternate (no action) approach that was transmitted on July 6, 2016 (CHPRC-1602928). The project continues to await RL direction for sanitary water system facility modifications. The MSA water purveyor also performed the annual cross-connection review at WESF on February 6, 2018. WESF is currently awaiting the report. Additionally, at MSA’s request, a letter was transmitted that describes to the MSA water purveyor the recently completed risk reduction activities at WESF (e.g.; W-130 Project) and the current schedule for removal of capsules to dry storage. On May 7, 2018, CHPRC received a response to this status stating that “the facility hazard level can be reduced from severe to high ONLY after Project W-135 is fully executed, with the capsules removed and protective basins drained.” CHPRC will be requesting RL direction on the 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.



Risk Title	Unmitigated Risk Impacts	Assessment		Comments												
		Month	Trend													
RL-0013/WBS-013																
Explanation of major changes to the project monthly stoplight chart: No major changes to the stoplight chart in May.																
Realized Risks (Risks that are currently impacting project cost/schedule)																
WSD-TR-03: Equipment fails CVSA Inspection or is Non-Operational	The Commercial Vehicle Safety Alliance (CVSA) Inspection identifies defects/issues with MSA equipment that requires repairs or replacement, resulting in cost impacts and schedule delays. Risk Handling Strategy: Accept Probability: Medium (26% to 74%) Worst Case Impacts: \$500K, 64 days			<p>Risk Event: On March 29, 2018, the clutch on the trailer that is used when pulling super sacks went out. In addition, during a return shipment from PFNW water inside the Super 7A was discovered.</p> <table border="1"> <thead> <tr> <th>Risk recovery action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Perform tractor clutch repair.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Perform leak test on Super 7A.</td> <td>7/2018</td> <td>0</td> </tr> <tr> <td>Perform four shipments to PFNW in June.</td> <td>6/19/2018</td> <td>0</td> </tr> </tbody> </table> <p>Risk Action Assessment: Due to the realization of this risk, the project performed a repair on the tractor clutch. The tractor was returned to service following the repair. The Super 7A was returned from PFNW with water inside, which could indicate a leak investigations will be conducted to identify cause. Shipments continue with the Super 7A-2.</p>	Risk recovery action(s)	FC Date	%	Perform tractor clutch repair.	Complete	100	Perform leak test on Super 7A.	7/2018	0	Perform four shipments to PFNW in June.	6/19/2018	0
Risk recovery action(s)	FC Date	%														
Perform tractor clutch repair.	Complete	100														
Perform leak test on Super 7A.	7/2018	0														
Perform four shipments to PFNW in June.	6/19/2018	0														

Risk Title	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
RL-0013/WBS-013													
WSD-TR-01: DOE Provided Drivers Not Available	Scheduling issues prevent the government-provided drivers from being assigned/available to make off-site waste shipments, resulting in cost impacts and schedule delays. Risk Handling Strategy: Transfer Probability: Low (10% to 25%) Worst Case Impacts: \$100K, 48 days	●	↔	Risk Event: Federal drivers were unavailable to perform scheduled waste shipments in April 2018.									
				<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Risk recovery action(s)</th> <th style="text-align: left;">FC Date</th> <th style="text-align: left;">%</th> </tr> </thead> <tbody> <tr> <td>Scheduling remaining FY2018 shipments with supporting functions.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Perform four shipments to PFNW in June.</td> <td>6/19/2018</td> <td>0</td> </tr> </tbody> </table>	Risk recovery action(s)	FC Date	%	Scheduling remaining FY2018 shipments with supporting functions.	Complete	100	Perform four shipments to PFNW in June.	6/19/2018	0
				Risk recovery action(s)	FC Date	%							
				Scheduling remaining FY2018 shipments with supporting functions.	Complete	100							
Perform four shipments to PFNW in June.	6/19/2018	0											
Risk Action Assessment: An April shipment was delayed due to a transportation audit resulting in federal driver conflicts. The project was successful in rescheduling the remaining FY2018 shipments with supporting functions to mitigate this realized risk.													
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)													
Lifecycle Risk Triggers (Risk could be realized at any point of the project)													
WSD-097: Major Equipment Failure - T-Plant	T Plant suffers a major equipment failure (crane, primary power supply, etc.), resulting in cost impacts and schedule delays. Risk Handling Strategy: Accept Probability: Medium (26% to 74%) Worst Case Impacts: \$3 million, 96 days	●	↔	Risk Trigger Metric: During planned facility operation activities, a suspected system component is discovered that requires attention or an unexpected malfunction results in this risk being realized. This risk will continue throughout the CHPRC (September 30, 2018) contract.									
				<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Mitigation action(s)</th> <th style="text-align: left;">FC Date</th> <th style="text-align: left;">%</th> </tr> </thead> <tbody> <tr> <td>Identify and procure spare parts for the T Plant crane.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table>	Mitigation action(s)	FC Date	%	Identify and procure spare parts for the T Plant crane.	Ongoing	N/A			
				Mitigation action(s)	FC Date	%							
				Identify and procure spare parts for the T Plant crane.	Ongoing	N/A							
Mitigation Assessment: No significant changes in May. The project has put into place mitigating strategies (i.e., aggressive Surveillance and Maintenance (S&M) activities) to help reduce this risk. The crane is currently operational, however, an adequate spare parts inventory is needed. The project has identified spare parts for the T Plant crane with input from the manufacturer and is in the process of procuring critical spares. The project has received mechanical brake and spare parts. The long lead motor parts are scheduled to be delivered in July 2018. Engineering addressed quality assurance clause for the National Electrical Manufacturers Association (NEMA) MG1 standards to complete the mechanical motor parts order. An electrical parts order is in process. Repair of the motor drive shaft and coupling was required as a result of the 2017 annual crane preventive maintenance work performed in November. The electrical crane PMs were completed in January. The project currently has all identified electrical spare parts for the crane on order or in hand and continues to work with the vendor to acquire additional critical spares. In addition, the project continues to work with Central Plateau Surveillance and Maintenance (CPS&M) to enter U Plant to determine whether spares can be salvaged from the crane that is of comparable vintage. This work is expected to be completed in the next reporting period.													

Risk Title	Unmitigated Risk Impacts	Assessment		Comments															
		Month	Trend																
RL-0013/WBS-013																			
WSD-019: MLLW & TRU Treatment Impacts	Mixed Low-Level Waste (MLLW) and TRU treatment capacity/capability does not meet Hanford needs or treatment does not occur as scheduled, resulting in cost impacts. Risk Handling Strategy: Accept Probability: Likely (75% to 90%) Worst Case Impacts: \$1.25 million, 0 days			Risk Trigger Metric: Will continue throughout the contract (September 30, 2018).															
				<table border="1" style="width: 100%;"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Establish multiple treatment contracts or obtain additional capability for the processing of MLLW and TRU waste, with terms extending to the end of the current CHPRC contract with RL (i.e. September 30, 2018).</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Continue to work with RL to fund the processing of TRU/M waste at PFNW at a rate that keeps them viable (i.e. keeps the doors open).</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Evaluate the benefit(s) associated with an increase to the PFNW plutonium (Pu) possession limit. Their current limit is 200 grams of total Pu. Increasing the limit may allow additional quantities of TRUM waste to be shipped to PFNW for processing. This evaluation took place in conjunction with the M-091-52 engineering study.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Negotiations with RL are ongoing to seek authorization for additional shipments of M-91 legacy TRUM to PFNW. The additional shipments would meet the objectives for the PFNW minimum optimal processing volume as identified in the optimization study provided to RL in December 2016.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table>	Mitigation action(s)	FC Date	%	Establish multiple treatment contracts or obtain additional capability for the processing of MLLW and TRU waste, with terms extending to the end of the current CHPRC contract with RL (i.e. September 30, 2018).	Ongoing	N/A	Continue to work with RL to fund the processing of TRU/M waste at PFNW at a rate that keeps them viable (i.e. keeps the doors open).	Ongoing	N/A	Evaluate the benefit(s) associated with an increase to the PFNW plutonium (Pu) possession limit. Their current limit is 200 grams of total Pu. Increasing the limit may allow additional quantities of TRUM waste to be shipped to PFNW for processing. This evaluation took place in conjunction with the M-091-52 engineering study.	Complete	100	Negotiations with RL are ongoing to seek authorization for additional shipments of M-91 legacy TRUM to PFNW. The additional shipments would meet the objectives for the PFNW minimum optimal processing volume as identified in the optimization study provided to RL in December 2016.	Complete	100
				Mitigation action(s)	FC Date	%													
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				Continue to work with RL to fund the processing of TRU/M waste at PFNW at a rate that keeps them viable (i.e. keeps the doors open).	Ongoing	N/A													
				Evaluate the benefit(s) associated with an increase to the PFNW plutonium (Pu) possession limit. Their current limit is 200 grams of total Pu. Increasing the limit may allow additional quantities of TRUM waste to be shipped to PFNW for processing. This evaluation took place in conjunction with the M-091-52 engineering study.	Complete	100													
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Mitigation Assessment: No significant changes in May . MLLW: Two contracts are in place for offsite commercial waste treatment, which provided sufficient capability/capacity to meet current MLLW treatment needs through the end of the CHPRC contract term. However, one of the contracts was recently restricted due to the closure of the Perma-Fix East treatment facility in Tennessee (M&EC). Additional treatment capabilities will be needed to meet future anticipated MLLW treatment needs. TRU/M: Only PFNW has current capability to process TRU/M waste. This is due solely to the practical limitations imposed by the need to ship the TRU/M waste via road closure; therefore, additional commercial providers cannot be obtained. Additional authorization has been received by DOE for FY2018, which will maintain PFNW's minimum optimization processing volumes through the remainder of the fiscal year .																			
Risk Trigger Metric: Based on unknown conditions, the possible risk triggers are unknown.																			
<table border="1" style="width: 100%;"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Repairs to 221-T Dock number 2 in support of sludge receipt.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Submittal of a baseline change request (BCR) to break out the planning package planned for May.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Repair piping in the head-end of tunnel.</td> <td>8/2018</td> <td>0</td> </tr> </tbody> </table>	Mitigation action(s)	FC Date	%	Repairs to 221-T Dock number 2 in support of sludge receipt.	Complete	100	Submittal of a baseline change request (BCR) to break out the planning package planned for May.	Complete	100	Repair piping in the head-end of tunnel.	8/2018	0							
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Submittal of a baseline change request (BCR) to break out the planning package planned for May.	Complete	100																	
Repair piping in the head-end of tunnel.	8/2018	0																	
Mitigation Assessment: No significant changes in May . Past periods included work on dock two removal and installation as well as asphalt repair. In April, a leak was repaired that impacted the canyon. In addition, piping in the head-end of the tunnel will require repair. This repair is currently scheduled to be initiated in August . The project has identified additional structural issues with the facility stairs and exits for which evaluations and repairs will be carried out as necessary.																			
WSD-140: As-Found-Unknown Conditions - T Plant	Unknowns, as-found, or emergent conditions impact the operability of the T Plant facility. Risk Handling Strategy: Accept Probability: Very Likely (>90%) Worst Case Impacts: \$990K, 0 days			Risk Trigger Metric: Based on unknown conditions, the possible risk triggers are unknown.															

Risk Title	Unmitigated Risk Impacts	Assessment		Comments															
		Month	Trend																
RL-0013/WBS-013																			
WSD-125: Multi-Year Pause in Waste Processing Results in Unexpected Container Integrity Issues	<p>A pause in waste processing results in an unexpected container degradation within Solid Waste Operations Complex (SWOC) (excluding TRU retrieval activities) and requires additional resources to respond.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Likely (75% to 90%)</p> <p>Worst Case Impacts: \$5 million, 0 day</p>	●	↑	<p>Risk Trigger Metric: Degraded containers are discovered in CWC.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Perform daily/weekly waste container surveillances to identify container abnormalities.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Manage a "watch list" of waste containers that have shown signs of degradation or are associated with degraded containers.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Process waste packages at a rate funded by RL.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Procuring stainless steel 85-gallon overpacks for alternative storage of containers that show signs of degradation.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in May. The project continued to perform container surveillances in May to identify container and container cover abnormalities. Three drums have been placed in overpacks in FY2018, in addition to 24 containers in 2404WC with signs of exterior corrosion, which were placed in stainless steel overpacks on October 18, 2017. One additional drum with corrosion was identified for overpack in May. The overpack is currently forecasted to be conducted in June or July. Furthermore, the overpack of storage box 75DMA16F3 was completed. RL authorized additional FY2018 TRU commercial repacking, allowing shipments to PFNW for repackaging to continue. The remaining containers will continue to require surveillance and enhanced monitoring.</p>	Mitigation action(s)	FC Date	%	Perform daily/weekly waste container surveillances to identify container abnormalities.	Ongoing	N/A	Manage a "watch list" of waste containers that have shown signs of degradation or are associated with degraded containers.	Ongoing	N/A	Process waste packages at a rate funded by RL.	Ongoing	N/A	Procuring stainless steel 85-gallon overpacks for alternative storage of containers that show signs of degradation.	Complete	100
Mitigation action(s)	FC Date	%																	
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Procuring stainless steel 85-gallon overpacks for alternative storage of containers that show signs of degradation.	Complete	100																	
FY2018 Risk Triggers (Risk could be realized in FY2018)																			
WSD-W135-15: Utilization of 2003 Pre-Conceptual Design	<p>A pre-conceptual design for the dry storage of the capsules was completed in July 2003. If this design cannot be utilized, it will be necessary to initiate and complete a new conceptual design, including a new analysis of alternatives.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Very Likely (>90%)</p> <p>Worst Case Impacts: \$5,100K, 0 days</p>	●	↔	<p>Risk Trigger Metric: The 2003 pre-conceptual design for the dry storage of capsules cannot be utilized.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No changes in May. The 2003 pre-conceptual design is based on design criteria that is older than 13 years old. Design criteria that impacts the ability to utilize the 2003 pre-conceptual design include: location of the Dry Storage Facility, duration of the storage period, Safety Basis Requirements, and environmental permitting. Continuing to have discussions with RL can clarify impacts of the Safety Basis Requirements and environmental permitting. The risk is being captured for visibility and will remain a part of the key risks until this issue is resolved.</p>	Mitigation action(s)	FC Date	%	None identified at this time.	N/A	N/A									
Mitigation action(s)	FC Date	%																	
None identified at this time.	N/A	N/A																	
WSD-W135-16: Content and Approval of Critical Decision Packages	<p>The content of the critical decision (CD) packages required by DOE O 413.3B are more extensive than anticipated and require an extensive RL review.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Very Likely (>90%)</p> <p>Worst Case Impacts: \$2,000K, 0 days</p>	●	↑	<p>Risk Trigger Metric: The content and review/approval process for the CD packages is impacted by DOE O 413.3B.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Prepare joint tailoring strategy with RL on how to meet the DOE O 413.3B requirements</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p>Mitigation Assessment: No changes in May. The pre-conceptual design of the project was based on DOE O 413.3A; the current version is DOE O 413.3B, Change Order 2. New requirements will impact the content of the CD packages or impact the duration and extent of the RL review. CHPRC continues to work closely with RL on the tailoring strategy to meet the DOE O 413.3B requirements. RL is currently evaluating the applicability of 413.3B due to new guidance from HQ. The risk is being captured for visibility and will remain as part of the key risks until this issue is resolved. No further mitigation actions are necessary at this time.</p>	Mitigation action(s)	FC Date	%	Prepare joint tailoring strategy with RL on how to meet the DOE O 413.3B requirements	Complete	100									
Mitigation action(s)	FC Date	%																	
Prepare joint tailoring strategy with RL on how to meet the DOE O 413.3B requirements	Complete	100																	

Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
RL-0013/WBS-013										
WSD-W135-17: Modifications to WESF	<p>The transfer of the capsules to dry storage will require modifications to WESF.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Very Likely (>90%)</p> <p>Worst Case Impacts: \$7,300K, 0 days</p>	●	↔	<p>Risk Trigger Metric: Modifications to the WESF facility are required for transfer of capsules to dry storage.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No changes in May. The approach incorporated into the pre-conceptual design for the transfer of the capsules required minimal modifications to WESF. New or updated requirements will require more extensive modifications to WESF. The CD-1 submitted in August provides the preliminary modifications to WESF. The risk is being captured for visibility and will remain as part of the key risks until this issue is resolved.</p>	Mitigation action(s)	FC Date	%	None identified at this time.	N/A	N/A
Mitigation action(s)	FC Date	%								
None identified at this time.	N/A	N/A								
WSD-W135-28: RCRA Permit Requires 90% Design Information for the Capsule Storage Area (CSA)	<p>Ecology may require the 90 percent design package for the CSA to be completed prior to issuing the permit for public comment.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Medium (20% to 74%)</p> <p>Worst Case Impacts: \$1,775K, 360 days</p>	●	↔	<p>Risk Trigger Metric: Ecology requires the 90 percent design package for the CSA to be completed prior to issuing the permit for public comment.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in May. CHPRC continues to have regular interfaces with Ecology to discuss the issue and are evaluating options should the 90 percent be required. The permit application was formally submitted to Ecology on November 21, 2017, with the 30 percent design information. The project is awaiting a determination of incompleteness and other comments on the application. The determination of incompleteness is primarily associated with the need for additional design information, which is currently being gathered. CHPRC submitted supplemental design information for the WESF Mods and CSA to RL in May to support Ecology's incompleteness determination. RL has transmitted this information to Ecology. Ecology is currently reviewing the design information. The project anticipates that a temporary authorization will be necessary if the permitting process is not timely.</p>	Mitigation action(s)	FC Date	%	None identified at this time.	N/A	N/A
Mitigation action(s)	FC Date	%								
None identified at this time.	N/A	N/A								
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)										
WSD-086: W&FM Industrial Accident or Contamination	<p>An industrial accident or contamination event requires corrective actions, resulting in cost impacts.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Medium (26% to 74%)</p> <p>Worst Case Impacts: \$3 million, 0 days</p>	●	↔	<p>Risk Trigger Metric: The spread of contaminated tumbleweeds at W&F laydown areas and burial grounds require additional personnel to monitor and mitigate the spread of contamination.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Additional radiation surveys, first line supervisors, and supporting staff are required to support herbicide spraying required to monitor and mitigate the spread of contamination in the burial grounds associated with biological vectors.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in May. The migration of tumbleweeds has the potential of spreading contamination to site "neighbors," therefore increased use of herbicide spraying and surveillances are required to help minimize contamination spread.</p>	Mitigation action(s)	FC Date	%	Additional radiation surveys, first line supervisors, and supporting staff are required to support herbicide spraying required to monitor and mitigate the spread of contamination in the burial grounds associated with biological vectors.	Ongoing	N/A
Mitigation action(s)	FC Date	%								
Additional radiation surveys, first line supervisors, and supporting staff are required to support herbicide spraying required to monitor and mitigate the spread of contamination in the burial grounds associated with biological vectors.	Ongoing	N/A								

Risk Title	Unmitigated Risk Impacts	Assessment		Comments																		
		Month	Trend																			
RL-0013/WBS-013																						
WSD-133: Results of External Audits/Assessments Impact Operations	External oversight groups identify gaps in licensing/permitting, surveillance, and maintenance activities at WSD facilities. This includes but is not limited to a change in the current interpretation of required electrical PMs and additional permitting at T Plant for sludge receipt. These gaps require additional resources to address discrepancies, resulting in cost impacts. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$3,000K, 0 days	●	↔	<p>Risk Trigger Metric: WESF operations continue longer than assumed due to delays in the implementation of the Cs/Sr capsule dry storage project, which results in increased maintenance demands and the need to replace select systems required for operation due to their age and difficulty in obtaining spare parts. The WRAP facility extended dormant period requires increased maintenance work.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Replace WESF pool cell instrumentation systems, add 21 PM/S WRAP electrical system activities, and perform WRAP floor repair.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Provide RL information to substantiate the current project position.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Participate in technical mitigations to ensure compliance.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in May. The project is working on the design of the WESF pool cell instrumentation system replacement. WRAP floor repairs are ongoing. Completed maintenance on the High Energy Real Time Radiography Linear Accelerator. Additional maintenance work will be performed based on facility work priority.</p>	Mitigation action(s)	FC Date	%	Replace WESF pool cell instrumentation systems, add 21 PM/S WRAP electrical system activities, and perform WRAP floor repair.	Ongoing	N/A	Provide RL information to substantiate the current project position.	Ongoing	N/A	Participate in technical mitigations to ensure compliance.	Ongoing	N/A						
Mitigation action(s)	FC Date	%																				
Replace WESF pool cell instrumentation systems, add 21 PM/S WRAP electrical system activities, and perform WRAP floor repair.	Ongoing	N/A																				
Provide RL information to substantiate the current project position.	Ongoing	N/A																				
Participate in technical mitigations to ensure compliance.	Ongoing	N/A																				
WSD-136: CWC/WRAP Components Fail	CWC facilities and components may reach their end of life. These items will need to be replaced and/or repaired outside of planned funding profiles, resulting in cost impacts. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$2 million, 0 days	●	↔	<p>Risk Trigger Metric: Maintenance activities at CWC increase due to aging facilities.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Floor repairs, MDSA container stacking requirements, replacement of exhaust fans.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Obtain spare parts for the Fire Alarm Control Units (FACU) via deactivation of old FACUs.</td> <td>6/2018</td> <td>-</td> </tr> <tr> <td>Conduct fieldwork for 2727W deactivation.</td> <td>6/2018</td> <td>-</td> </tr> <tr> <td>Conduct fieldwork for MO433 deactivation.</td> <td>9/2018</td> <td>-</td> </tr> <tr> <td>Conducting doorframe replacements and electrical equipment repairs as necessary.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in May. The WRAP roof was analyzed for structural integrity following water intrusion. There was insufficient basis for the roof's integrity, which may lead to an eventual roof replacement. The MDSA container stacking requirements are complete. Maintenance work at CWC will be scheduled based on facility work priorities. The WRAP facility experienced failure of the majority of the breakers earlier in the year and is currently repairing Motor Control Centers (MCC). A sinkhole in the WRAP parking lot was repaired in April 2018. Repair to the line and fire hydrant causing the sinkhole were completed in October 2017.</p>	Mitigation action(s)	FC Date	%	Floor repairs, MDSA container stacking requirements, replacement of exhaust fans.	Ongoing	N/A	Obtain spare parts for the Fire Alarm Control Units (FACU) via deactivation of old FACUs.	6/2018	-	Conduct fieldwork for 2727W deactivation.	6/2018	-	Conduct fieldwork for MO433 deactivation.	9/2018	-	Conducting doorframe replacements and electrical equipment repairs as necessary.	Ongoing	N/A
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Conduct fieldwork for MO433 deactivation.	9/2018	-																				
Conducting doorframe replacements and electrical equipment repairs as necessary.	Ongoing	N/A																				
Unassigned Risks (Pending ownership of identified risks/opportunities)																						
No unassigned risks identified in May .																						

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	13.9	12.3	10.0	(1.6)	-11.7%	2.3	19.1%

Numbers are rounded to the nearest \$0.1 million

CM Schedule Performance (-\$1.6M/-11.7%)

The current month (CM) negative schedule performance variance is primarily associated with TRU repacking between three accounts. The first two are TRU Large Box Repack and PFP, both associated with work planned for this period but already completed in a prior period. The third account is the delay of two shipments of MLLW that were planned in the current period but delayed to June in order to allow more time to develop lifting plans. The two waste containers are shored in such a way that a lifting device is used to position the rigging without affecting the shored portions of the boxes.

CM Cost Performance (\$2.3M/19.1%)

The CM positive cost performance variance is primarily due to significant efficiencies in labor utilization within Project Management. This is attributable to the continued implementation of efficiencies as a cost cutting measure. Efficiencies include resource sharing across multiple scopes of work (SOW) in areas of engineering, training, emergency preparedness, corrective action management and environmental management. Also contributing to the positive cost performance are two understated accruals associated with management of the Cesium & Strontium Capsules (MCSC) Project (W-135), and RH/Large Package Capability, due to the efficiencies related to the conceptual design for retrieval. The efficiencies are the result of already existing reliable documents and data, which has reduced the effort needed to continue developing the work scope. Additionally, a labor variance distribution and G&A rate over liquidation was distributed in May.

Contract-to-Date (CTD)

(\$M)

WBS 013/RL-0013 Waste and Fuels Management Project	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Estimate to Complete (ETC)	Variance at Completion (VAC)
Total	1,276.8	1,271.2	1,189.0	(5.6)	-0.4%	82.4	6.5%	1,382.5	1,307.3	118.3	75.2

Numbers are rounded to the nearest \$0.1 million

CTD Schedule Performance (-\$5.6M/-0.4%)

The CTD schedule variance is within threshold.

CTD Cost Performance (+\$82.4M/+6.5%)

Realizing efficiencies such as organizational flattening and streamlining; right-sizing capabilities for planned scope; optimizing resources with reorganization and consolidation of engineering capabilities

across W&FM; combined administrative/records functions across WESF and CSB; removing waste from building(s) and reducing the need for inspections/surveillances; reducing the size and number of Radioactive Areas/Radioactive Material Areas (RAM) and associated surveillances/routines and records; tagging out unneeded equipment and reducing the frequency and number of preventive maintenance activities; increasing shared resources across all of SWOC; reducing dedicated resources for Corrective Action System (CAS) and using project-wide support; optimizing maintenance scheduling and execution reducing Operations Field Work Supervision; increasing emphasis on managing planned absence coverage within existing resources; simplifying and optimizing acquisition and procurement management within W&FM; and eliminating the separate waste forecast system by integrating forecasting as part of the baseline process and the Solid Waste Inventory Tracking System (SWITS).

Variance at Completion (+\$75.2M/+5.4%)

Realizing efficiencies such as organizational flattening and streamlining; right-sizing capabilities for planned scope; optimizing resources with reorganization and consolidation of engineering capabilities across W&FM; combined administrative/records functions across WESF and CSB; removing waste from building(s) and reducing the need for inspections/surveillances; reducing the size and number of Radioactive Areas/RAM and associated surveillances/routines and records; tagging out unneeded equipment and reducing the frequency and number of preventive maintenance activities; increasing shared resources across all of the SWOC; reducing dedicated resources for CAS and utilizing project-wide support; optimizing maintenance scheduling and execution; reducing Operations Field Work Supervision; increasing emphasis on managing planned absence coverage within existing resources; simplifying and optimizing acquisition and procurement management within W&FM; and eliminating the separate waste forecast system by integrating forecasting as part of the baseline process and SWITS. The variance at completion is offset because the forecast for ERDF operations has been moved into project breakdown structure (PBS) RL-0013 from PBS RL-0041, but a BCR to transfer the budget from PBS RL-0041 will not be processed until later in FY2018.

Contract Performance Report Formats are provided in Appendix A

FUNDS vs. SPEND FORECAST (\$M)

WBS 013/RL-0013 Waste and Fuels Management Project	FY2018		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	150.8	168.0	(17.2)
Incremental Scope Pending Change Management	0.0	(44.2)	44.2
RL-0013 – Total	150.8	123.8	27.0

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis

The FY2018 projected funding level for PBS RL-0013 of \$150.8 million is based on the revised guidance provided by RL following passage of the FY2018 Omnibus. The \$27.0 million variance between projected funding and the spend forecast is primarily due to the absence of ERDF costs from October-

May charged to RL-0041; the deferral of forecasted RL-0013 work to offset higher priority scope within the Central Plateau Control Point; Line Item (LI) funding for Project W-135 that was allocated but not available due to continuing resolution (CR), resulting in the deferral of a portion of preliminary design activities for WESF modifications; and the spending forecast decreased \$1.3 million from last month, due primarily to incorporating the positive variance distribution from the labor and G&A overhead accounts.

Critical Path Schedule

Critical Path Analysis will be provided upon request.

MILESTONE STATUS

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

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
C-026-07L	Tritium Treatment Technology Developments to Ecology and EPA.	3/31/18	3/22/18 (A)		Completed
M-091-53	Submit Milestone Change Request to Replace Target Dates for Capabilities to Process TRUM Waste	9/30/18		9/27/18	On schedule
M-092-00	Acquire Facilities for Cs/Sr, Na & SCW	9/30/18		9/28/18	In Program Planning
M-091-52-T01A	Remove Five (5) Mixed Waste Containers from Outside Storage Area A and/or Outside Storage Area B	11/30/18	4/26/18 (A)	4/26/18	Completed
M-091-03L	Submit Revision of TRUM Waste and MLLW PMP to Ecology.	Deleted per Change Number M-91-18-01			
M-026-07D	Evaluation of Tritium Treatment Technology to EPA & Ecology	3/31/19		3/31/19	On schedule
C-026-07M	Submit Tritium Treatment Technology Developments to Ecology & EPA	3/31/19		3/31/19	On schedule

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

Contract Section	Project	GFS/I	Status
CONTRACT			
J.12/C.2.2, C.2.3	PBS-RL-0011, Plutonium Finishing Plant Closure Project PBS-RL-0013, Solid and Liquid Waste Treatment and Disposal	Offsite Transportation of Radioactive Material: RL provides equipment and government drivers to transport TRU materials outbound/inbound between the Hanford Site and Northwest locations. RL is the authorized shipper and acts as signatory on the shipping papers, and ensures DOE Manual 460.2-1 is complied with. RL arranges for Commercial Motor Vehicle Safety Alliance (CVSA) level VI vehicle inspections and verifies that the government drivers meet the applicable DOT Federal Motor Carrier Safety Regulations (49 CFR 382 and 383). RL also inspects the load securement to ensure compliance with DOT regulations and/or treatment, storage and disposal (TSD) requirements.	Ongoing
J.12/C.2.3.6	PBS-RL-0013, Transuranic Waste Certification	WIPP provides shipping resources and manages the schedule for transportation of these containers to WIPP. The schedule is variable, and the number of shipments is controlled by DOE-HQ on a complex-wide priority. Cost for shipment of TRU waste offsite is borne by the Carlsbad Field Office (CBFO).	No WIPP shipments are planned within the remaining contract period of performance.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
CSB – Obtain RL DSA Approval	1/31/2018 (A)	8/9/2018
CSA CD2/3 – DOE-HQ Approve Amended ROD & Publish in Federal Register	2/6/2018 (A)	5/14/2018(A)
Provide Supplemental Permit Application Material	2/14/2018 (A)	5/31/2018
Ecology Performs Review of Supplemental information	6/1/2018	8/8/2018

Section D

Soil and Groundwater Remediation Project (RL-0030)

CH2MHILL
Plateau Remediation Company



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

M. A. Wright
Vice President for
Project Technical
Services

May 2018
CHPRC-2018-05, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

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

PROJECT SUMMARY

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

Treatment Facility	Million Gallons Treated		Chrome (kg)		Carbon Tet (kg)		Tech-99 (pCi)		Uranium (kg)	
	CM	FYTD	CM	FYTD	CM	FYTD	CM	FYTD	CM	FYTD
DX P&T	38.7	253.6	2.4	18.0						
HX P&T	39.3	241.1	1.9	17.0						
KR-4 P&T	12.7	75.2	0.1	0.8						
KW P&T	14.6	113.0	0.8	8.3						
KX P&T	39.2	254.4	2.3	15.9						
200 West P&T	97.6	769.1	9.0	67.4	207	1,550	.22x10 ¹²	1.76x10 ¹²	11.8	105.0
Combined	207.1	1,464.2	14.8	111.0	192.0	1,343	.22x10¹²	1.76x10¹²	11.8	105.0
FY2018 KPG	--	2,200.0	--	160.0	--	1,800.0	--	N/A	--	120

Well Drilling by Area	FY2018 Planned	Current Month	FY2018 Cumulative
100-KR-4	3	0	0
100-HR-3	6	0	6
200-UP-1	5	0	4
200-ZP-1	4	0	2
M-24 Milestone	1	1	1
Total Wells	19	1	13
Site Wide Boreholes	29	0	29

EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
<u>18-EMS-SGRP-OB1-T1</u>	Reduce adverse environmental impact to health and the environment by monitoring and confirming low-carbon tetrachloride emissions at the 200 West Pump and Treat Facility.	Evaluate treated off-gas analytical results from compliance sampling and process sampling each quarter.	7/31/18	66%
<u>18-EMS-SGRP-OB2-T1</u>	Improve compliance margin by improving expired chemical inventory management.	Better define the process of proper disposal of expired chemicals and/or chemicals with no future use.	9/30/18	50%

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis)

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	1	NA
Total Recordable Injuries	0	0	NA
First Aid Cases	1	31	5/2/18 – An individual experienced an allergic reaction to an unknown substance, resulting in swelling and the appearance of blistering of the tissue on the lower left eye. The employee was seen at HPMC and returned to work with no restrictions. (24794) *1 First Aid case, PTS in support of RL-0030.
Near-Misses	0	0	NA

KEY ACCOMPLISHMENTS

RL-0030 Accomplishments

Environmental Integration

- Held the second of three workshops planned in fiscal year (FY) 2018 on May 22, 2018, with participants from CHPRC, RL, Office of River Protection (ORP), Environmental Protection Agency (EPA), and Ecology to discuss development of the cumulative impact evaluation (CIE) approach document. The CIE will provide a dynamic set of tools to enable the evaluation of cumulative impacts to groundwater from potential sources, including existing groundwater contamination. With an objective to be modular, maintainable, flexible, and efficient, it is envisioned that the tools will support evaluation of alternative remediation and closure decisions for source areas and groundwater across the Central Plateau. The CIE approach document will establish the methodology for developing the CIE tools. The focus of the second workshop was source inventory and release models. The workshop saw active participation from the parties in attendance. Future workshops will include discussion of geologic, vadose zone, and saturated zone models and reporting.

RL-0030.01 RL-0030 Operations

River Corridor

300-FF-5 OU

- Continued implementation of the Stage B Uranium Sequestration construction activities. Completed review of design documents and the new design for electrical power at the project site. Continued shop fabrication of the well head manifolds, electrical panels, and the central sampling manifold. Initiated field site construction activities on May 7, 2018.

100-KR-4 OU

- Submitted the technical impracticability (TI) waiver White Paper for the strontium-90 plume near the KE Reactor to RL on May 3, 2018. This White Paper provides the justification for the TI waiver approach, which will then be incorporated into the feasibility study (FS) following RL and EPA approval of the path forward.
- Completed the drilling of monitoring wells 199-K-231 and 199-K-232 with construction and development activities to follow. Began drilling well 199-K-234 on May 15, 2018.

100-HR-3 OU

- Initiated the operational acceptance testing for new extractions wells 199-H3-29, 199-H1-47, and 199-H1-48 during this reporting period.

100-NR-2 OU

- Initiated internal project review of the Draft B remedial investigation/feasibility study (RI/FS) report.
- Defined the process to obtain a “front-end” TI waiver for strontium-90, as part of the RI/FS report. The process will guide the efforts through the various local, regional, and headquarters communication steps so that a TI is granted at the time the record of decision (ROD) is signed. The process is based on the CERCLA guidance, which allows for the decision document to waive the cleanup standard, where applicable, if the technical and regulatory conditions are met.
- Continued working with the tribes to complete the memorandum of agreement (MOA) for the permeable reactive barrier (PRB) reinjection project. The second MOA workshop was held, which was followed by a technical briefing via conference call to introduce new tribal staff to the technical elements on the project. A third MOA workshop is planned for early June.

100-BC-5 OU

- Provided the Draft Revision 0 Proposed Plan to RL for final review on May 15, 2018. RL forwarded the document to EPA for review on May 22, 2018. The revision incorporates comments received from EPA on August 14, 2017.
- Provided the Draft Revision 0 RI/FS Chapter 7 to EPA for review on May 23, 2018. The revision incorporates comments received from EPA on April 27, 2018.

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

- Initiated well development activities for the last (299-39-68) of the 22 wells supporting the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Milestone M-016-193.
- Issued final meeting minutes on May 21, 2018, documenting an agreement with EPA on the completion criteria for Tri-Party Agreement Milestone M-016-193.
- Delivered the Decisional Draft Remedial Design Investigation Report for the 200-UP-1 Operable Unit Southeast Chromium Plume, to RL on May 23, 2018, for review.

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

- Completed regulator meeting on the scope/status of the 200-BP-5/200-PO-1 Interim Record of Decision (IROD) FS. The meeting which addressed the groundwater technology screening approach and project schedule was held on May 3, 2018.
- Met with RL on May 7, 2018, to review IROD FS modeling results for the three alternatives to be addressed in the IROD strategy.
- Completed the 90 percent design package and initiated procurements for the extension of the 200-BP-5 extraction system to a third extraction well, 299-E33-361. Completed a kick-off meeting on May 1,

2018, with Mission Support Alliance, LLC (MSA) to design the overhead power distribution subsystem to the well pad.

- Met with RL on May 2, 2018, to resolve comments on an engineering calculation that evaluates the reduction of the 200-BP-5 uranium plume from calendar year 2016 to 2017.

200-DV-1 OU

- Briefed RL on May 14, 2018, on the approach for the baseline human health risk assessment.
- Briefed RL, Ecology, and EPA on the analytical results for baseline samples associated with the Uranium Reactive Gas Sequestration (URGS) Treatability Test project. Based on the analytical results, it has been determined that this technology is not applicable at the 216-U-8 site. Additional testing has been initiated to help explain these test results in order to better understand the applicability of this remediation method. Demobilization activities for this treatability test project have been initiated.

200-ZP-1 OU

- Briefed RL and EPA on the 200 West P&T First Quarter CY2018 Performance on May 10, 2018.
- Issued the Optimization Test Plan for Treating Water from Modular Storage Units (MSU) at 200 West P&T on May 2, 2018. Initiated sediment removal from MSU 3 on May 14, 2018.
- Briefed RL on May 17, 2018, on the strategy for the 200 West P&T to meet the remedial action objectives specified in 200-ZP-1 ROD.
- Briefed RL, EPA, and Ecology on cyanide in the Central Plateau groundwater and the 200 West P&T effluent water on May 23, 2018.
- Delivered to RL for review the Draft Calendar Year 2017 Annual Summary Report for the P&T Operations in the Hanford Central Plateau Operable Units on May 15, 2018.

200 East Closure Plans

- Resolved the two remaining Ecology comments on the Option 2 template for the 216-A-36B crib closure plan.
- Initiated development of the 216-A-23-1 crib closure plan using the Option 2 format.

200-EA-1

- Completed internal review and resolved comments on the 200-EA-1 RI/FS work plan and SAP. A briefing of these changes will be provided to RL in early June.

RCRA Groundwater Monitoring

- Issued the regulator review draft for the 216-A-29 Ditch and the 216-A-37-1 Crib Engineering Evaluation Report in May 2018. Regulator comments on the 216-A-29 Ditch were received on May 17, 2018.

Project Technical Services Accomplishments

- Training and Procedures
 - Presented just-in-time training for “Valve Locking” to Soil and Groundwater Remediation Project (S&GRP) operations. The training discussed odd shaped valves in the project and gave a refresher and review of proper locking techniques.
- Project Delivery
 - Continued site construction and shop work for 300-FF-5 Stage B work scope.
 - Completed site access.

- Continued shop fabrication of electrical and mechanical racks.
- Commenced field installation of racks, tanks and piping.

Groundwater P&T Facilities

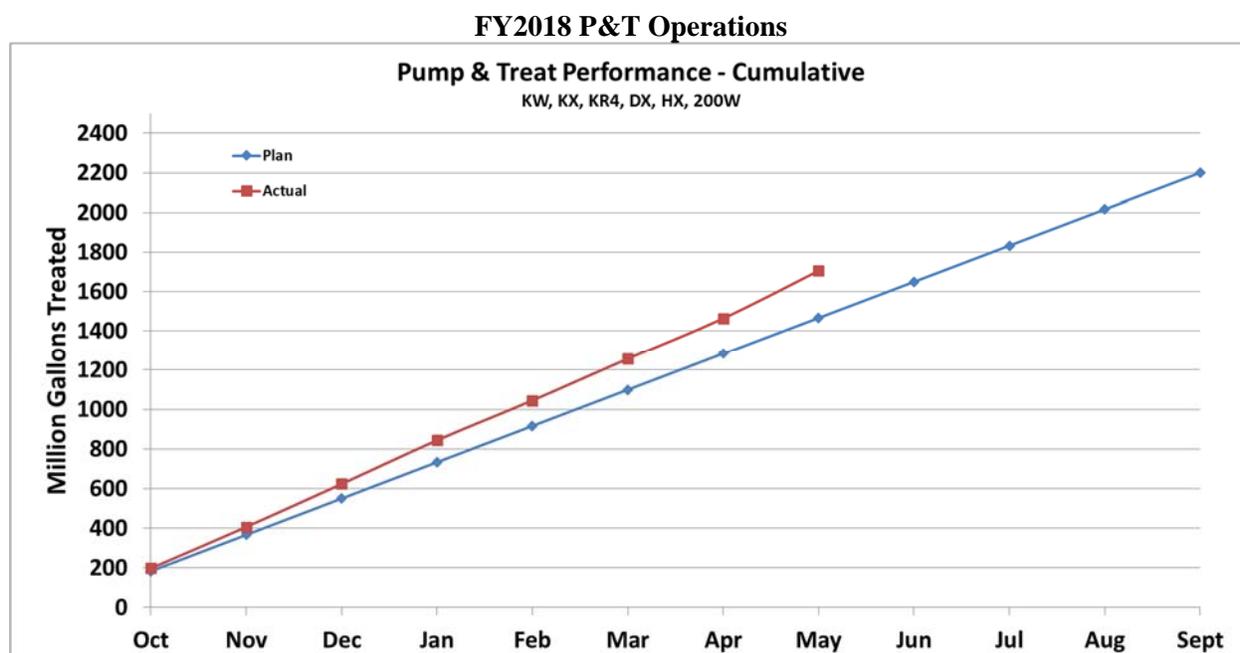
Overall, the pump and treat (P&T) systems are operating above target as depicted in the P&T performance graph below.

200 West P&T

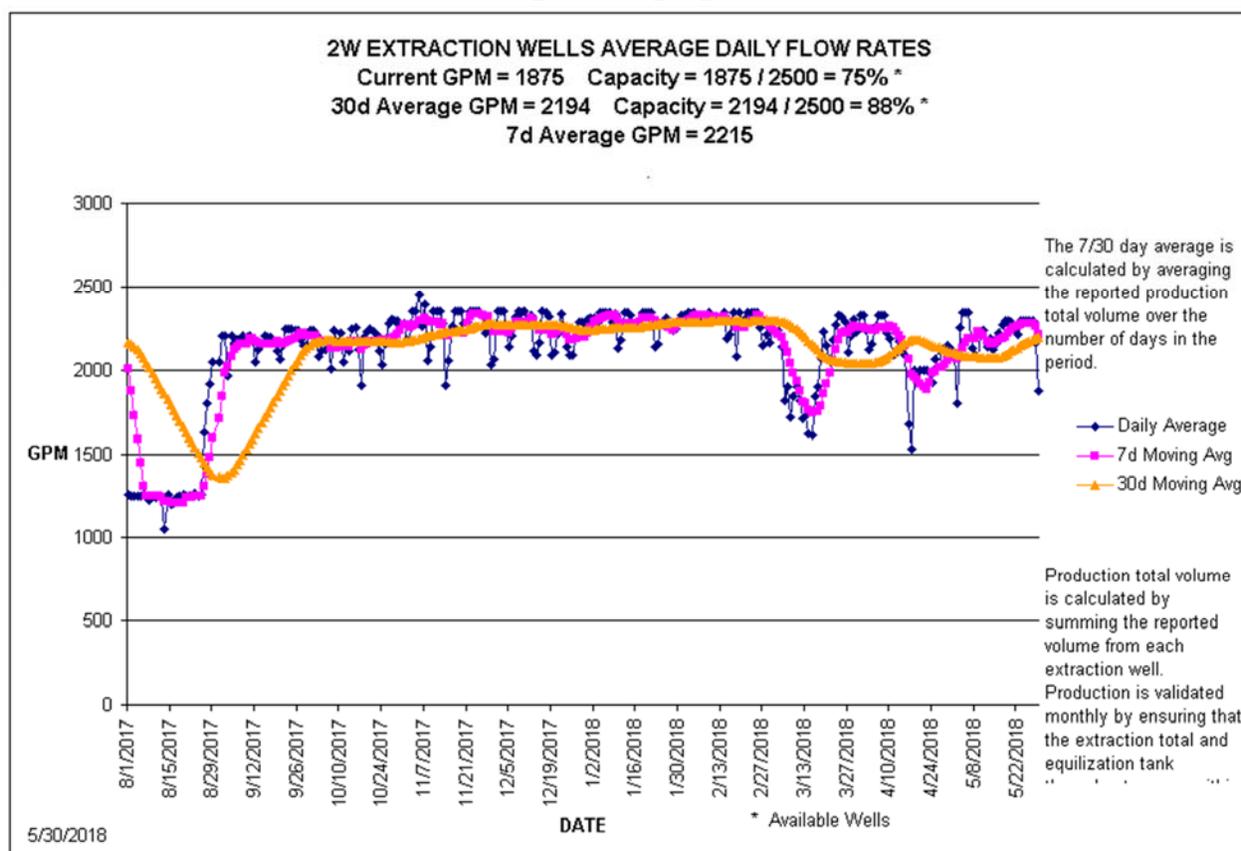
Operated the 200 West P&T at an average of 2,186 gallons per minute (gpm).

100 Area P&Ts

- Operated the DX P&T at 866 gpm, above the facility capacity of 775 gpm.
- Operated the KR-4 P&T at 284 gpm, below the facility capacity of 330 gpm.
- Operated the KW P&T at 328 pm, near the facility capacity of 330 gpm.
- Operated the KX P&T at 879 gpm, near the facility capacity of 900 gpm.
- Operated the HX P&T at 881 gpm, near the facility capacity of 900 gpm. Completed HX feed header repair. Placed new extraction wells 199-H1-47, 199-H1-48, and 199-H1-49 in unattended operation.



200 West P&T



MAJOR ISSUES

Issue:

The evaporation rate at the MSUs is not keeping up with the purgewater being added. The project needs a reliable manner to treat the purgewater.

Corrective Action:

The project evaluated the use of 200 West P&T and MSU operations together to mitigate two issues (200W injection well fouling and MSU level). Regulatory approval (EPA and Ecology) to treat MSU water at 200 West P&T has been requested.

Status:

Meetings with EPA and Ecology have concluded that an Optimization Pilot Test Plan approved by EPA would be the best approach to treat up to two million gallons of MSU water at the 200 West P&T. The Optimization Pilot Test Plan (DOE/RL-2018-28) was approved by EPA and issued May 4, 2018. Sediment removal commenced May 14, 2018, at MSU 3 to support MSU water treatment and MSU 3 water is expected to commence treatment by 200 West P&T mid-June 2018. The issue is closed.

Issue:

The URGS treatability test injections are re-planned to begin in the fall; no earlier than October 1, 2018.

Corrective Action:

Letter CHPRC-1800623 was submitted on February 15, 2018, documenting the notification of change (NOC). CHPRC proposed to discuss contractual impacts from this decision.

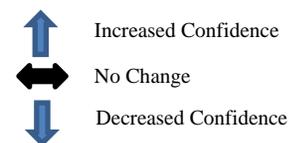
Status:

Due to recently received laboratory test results and in agreement with RL management, it has been determined that the URGS treatment technology is not appropriate for the 216-U-8 test site. The laboratory test results and technical interpretation were discussed with RL management on May 2, 2018. A follow-on meeting was held with EPA and Ecology on May 16, 2018, to explain the recent laboratory results and the recommendation that the field portion of the test not be performed. A follow-on letter to CHPRC-1800623 is being prepared. The issue is closed.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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



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

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	13.1	12.0	8.9	(1.1)	-8.7%	3.1	25.7%

Numbers are rounded to the nearest \$0.1 million.

CM Schedule Performance (-\$1.1M/-8.7%)

The current period negative schedule variance is the result of positive schedule variance earned in prior periods returning to zero:

- Membrane Bioreactor (MBR) cassette installation (work performed in April 2018).
- 100-HR-3 P&T optimization well drilling and associated well realignments.
- 200-UP-1 monitoring well drilling to support Tri-Party Agreement Milestone M-016-193.

CM Cost Performance (+\$3.1M/+25.7%)

The current period positive cost variance is the result of:

- An accrual adjustment in the Integration and Assessment account for composite analysis yielded a positive cost variance. In addition, new software and hardware upgrades and enhancement scope in support of the environmental databases are being evaluated and implemented only as needed.
- A labor variance distribution and general and administrative (G&A) rate over liquidation was distributed in May.
- The GW Monitoring and Performance Assessment account continues to realize efficiencies in the geophysical logging subcontract that was competitively rebid with a subsequent reduction in contract costs and savings in GW lab analysis and data management accounts because the sampling group has worked to improve continuity in field work and increased flexibility by improving each team's sampling qualifications. This preparation has resulted in fewer failed sampling trips and less down time due to unplanned maintenance.
- The Usage Based Services Distributions account has seen fewer leased vehicles, fuel, inspection, maintenance, and report work than originally planned.
- This positive variance was offset in part by preparation for 300-FF-5 Stage B injections. Field work preparation activities were performed in a prior year and then the project was laid up. The project is now restarting project site preparation activities.

Contract-to-Date (\$M)

RL-0030 Soil and Groundwater Remediation	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Estimate to Complete (ETC)	Variance at Completion (VAC)
Total	1,491.3	1,485.1	1,437.0	(6.1)	-0.4%	48.2	3.2%	1,595.5	1,544.8	107.8	50.7

Numbers are rounded to the nearest \$0.1 million.

CTD Schedule Performance (-\$6.1/-0.4%)

The variance is within reporting thresholds.

CTD Cost Performance (+\$48.2M/+3.2 %)

The variance is within reporting thresholds.

Variance at Completion (+\$50.7M/+3.2%)

The variance is within reporting thresholds.

Contract Performance Report Formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST (\$M)

RL-0030 Soil and Groundwater Remediation	FY2018		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	121.9	113.6	8.3
Incremental Scope Pending Change Management	0.0	0.4	(0.4)
RL-0030 –Total	121.9	114.0	7.9

Numbers are rounded to the nearest \$0.1 million

Funds/Variance Analysis

The fiscal year (FY) 2018 projected funding for project breakdown structure (PBS) RL-0030 is \$121.9 million. In May, the uncostered value increased by \$1.2 million due to an over liquidation of the labor adder pool and G&A rate. There is no significant change in forecast.

Critical Path Schedule

Critical path analysis will be provided upon request.

MILESTONE STATUS

The following table is a one-year look ahead of PBS RL-0030 Tri-Party Agreement enforceable milestones, non-enforceable target due dates, and commitments.

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
Milestones on Schedule					
M-024-58K	Initiate Discussions of Well Commitments	6/1/18	5/24/18 (A)		Complete.
M-015-92A	Submit RFI/CMS & RI/FS Work Plan for 200-EA-1 OU to Ecology	7/31/18		7/26/18	On schedule.
M-024-69-T01	Conclude discussions of well commitments initiated under M-024-58	8/1/18		8/1/18	On schedule.
M-016-193	Investigate SE Chromium Plume, Install Wells, Evaluate GW Monitoring Data & Install Monitoring Wells	9/30/18		9/19/18	On schedule.
M-015-21A	Submit 200 BP-5 & 200 PO-1 OU FS Report and PP(s) to Ecology	3/31/19		3/13/19	On Schedule.
Milestones at Risk					
M-015-93C	Initiate Characterization Field Work for 200-SW-2 Operable Unit Landfills	9/30/18		TBD	At risk: a draft Tri-Party Agreement change control form was provided to RL

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL Review Draft CY2017 Annual Groundwater Report	4/17/2018 (A)	6/4/2018
RL Review Draft 100 Area P&T Report	5/16/2018 (A)	6/14/2018
RL Review Draft 200 Area P&T Report	5/16/2018 (A)	6/14/2018
RL Transmit Rev 0 SST WMA U Engineering Evaluation Report to Ecology	5/29/2018	5/29/2018
RL Transmit Rev 0 SST WMA T Engineering Evaluation Report to Ecology	6/4/2018	6/25/2018
Concurrent RL and CHRPC Review of Internal Draft SST WMA U Groundwater Monitoring Plan	6/8/2018	6/14/2018
Concurrent RL and CHRPC Review of Internal Draft NRDWL/SWL Engineering Evaluation Report	6/14/2018	6/20/2018
Concurrent RL and CHRPC Review of Internal Draft 216-B-63 Trench Engineering Evaluation Report	6/15/2018	6/21/2018

Description	CHPRC Delivery Date	Expected RL Due Date
RL Transmit Rev 0 SST WMA TX-TY Engineering Evaluation Report to Ecology	6/15/2018	6/28/2018
RL Transmit Rev 0 SST WMA S-SX Engineering Evaluation Report to Ecology	6/15/2018	6/28/2018
RL Review Draft Central Plateau Tracer Test Sampling Analysis Plan	6/19/2018	7/18/2018
RL Transmit Draft 216-A-36B Crib Engineering Evaluation Report to Ecology for Review	6/20/2018	6/20/2018
Concurrent RL and CHPRC Review of Internal Draft SST WMA T Groundwater Monitoring Plan	6/20/2018	6/26/2018
RL Transmit Rev 0 216-S-10 Pond and Ditch Engineering Evaluation Report to Ecology	6/22/2018	6/28/2018
RL Transmit Draft IDF Engineering Evaluation Report to Ecology for Review	6/29/2018	6/29/2018
Concurrent RL and CHPRC Review of Internal Draft SST WMA TX-TY Groundwater Monitoring Plan	6/29/2018	7/6/2018
RL Transmit Draft B 200-BP-5 RI to Regulators for Final Review	6/29/2018	7/6/2018
Concurrent RL and CHPRC Review of Internal Draft SST WMA S-SX Groundwater Monitoring Plan	7/3/2018	7/10/2018
RL Transmit Draft Rev 0 100-BC-5 RI/FS Report to Regulators for Review	7/3/2018	7/8/2018
Concurrent RL and CHPRC Review of Internal Draft 216-S-10 Pond and Ditch Groundwater Monitoring Plan	7/11/2018	7/17/2018
RL Transmit Rev 0 LLBG WMA-4 Engineering Evaluation Report to Ecology	7/11/2018	7/17/2018
RL Transmit Draft A 200-EA-1 RI/FS Work Plan to Regulators for Review	7/17/2018	7/26/18
RL Review Draft 200W P&T GW Remediation Plan	7/19/2018	8/17/2018
RL Transmit Rev 0 LLBG WMA-3 Engineering Evaluation Report to Ecology	7/19/2018	7/25/2018
RL Transmit Rev 0 216-A-29 Ditch Engineering Evaluation Report to Ecology	7/25/2018	7/31/2018
RL Transmit Rev 0 SST WMA C Engineering Evaluation Report to Ecology	7/26/2018	8/15/2018
Concurrent RL/Regulator Review Draft A 200-EA-1 RI/FS Work Plan	7/27/2018	8/9/2018
RL Transmit Draft 216-B-63 Trench Engineering Evaluation Report to Ecology for Review	7/31/2018	7/31/2018
Concurrent RL and CHPRC Review of Internal Draft LLBG WMA-4- Groundwater Monitoring Plan	8/1/2018	8/7/2018
RL Transmit Rev 0 216-B-3 Pond Engineering Evaluation Report to Ecology	8/3/2018	8/23/2018
RL Transmit Rev 0 LLBG WMA-1 Engineering Evaluation Report to Ecology	8/3/2018	8/23/2018
Concurrent RL and CHPRC Review of Internal Draft LLBG WMA-3 Groundwater Monitoring Plan	8/3/2018	8/9/2018
RL Transmit Rev 0 216-A-37-1 Crib Engineering Evaluation Report to Ecology	8/17/2018	9/7/2018
RL Transmit Rev 0 SST WMA A-AX -Engineering Evaluation Report to Ecology	8/30/2018	9/13/2018

Section E

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

CH2MHILL
Plateau Remediation Company



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

May 2018
CHPRC-2018-05, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

Two major subcontracts were awarded this month in preparation for grouting the Plutonium Uranium Extraction Plant (PUREX) Tunnel 2. One contract was for site improvements and the second for the grout conveyance system fabrication and installation, both of which are critical in the start of grouting activities. The request for proposal (RFP) for the major grouting contract was issued and a pre-bidder conference was held in which several vendors attended. The contract is anticipated to be awarded in early July. The demolition of 222B commenced this month, as well as the B Plant pre-filter change-out.

EMS Objectives and Target Status

None currently identified.

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	Current Month	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	0	N/A
Total Recordable Injuries	0	0	N/A
First Aid Cases	0	10	N/A
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

RL-0040 Accomplishments

Central Plateau Risk Reduction (CPRM) Facilities and Waste Sites

- Performed 231-Z surveillance and completed documentation.
- Completed annual B-Plant Stack and PUREX stack rotameter calibrations.
- Performed painting of fixed contamination areas (FCA) at U-Plant.
- Re-started PUREX Exhaust fan EF-V11-1 and vacuum pump P-V19-1 to support Veltron gauge calibrations.
 - o Performed 202-A Veltron II gauge calibrations.
 - o Performed 202-A Veltron gauge calibrations.
 - o Performed 202-A Zero/Span instrument calibrations.
- Performed Assured Equipment Grounding Conductor Program (AEGCP) and ground-fault circuit interrupter (GFCI) inspections at Z-Plant as well as B Plant to support pre-filter change-out preparation.

PUREX Tunnel 2 Stabilization Project

- Completed the 90 percent engineering design package for the grout conveyance system.
- Awarded site improvement contract to Watts. Mobilized contractor and commenced road construction.

- Awarded grout conveyance fabrication and installation subcontract to Intermech.
- Issued RFP for the PUREX Tunnel 2 grouting contract and held a pre-bidders meeting.
- Commenced procurement of long lead electrical components for the power and trailer install at the Integrated Disposal Facility (IDF).

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

- Commenced B Plant pre-filter change-out with nine pre-filters replaced in ACT 001.

REDOX Canyon Risk Mitigation

- Completed repairs, obtained occupancy permits, and commenced personnel relocations to MO-409.
- Completed work package, ground scans, and walk downs for relocation of connex boxes within the reduction and oxidation (REDOX) fence line.
- Received and completed disposition of all Noncompliance Reports (NCR) for two climate controlled connex boxes at Acquisition Verification Services (AVS). The boxes are for use in creating mask station and equipment calibration stations within the REDOX footprint.
- Ordered and received building signs for all connex boxes.
- Released timely order through shift office instructing personnel to verify REDOX ventilation prior to and during entries.
- Incorporated references to timely order into work package and added ventilation checks into work packages that previously vectored toward OP-5 procedure.
- Approved work package for sampling fourth through eighth floors of the REDOX Silo.
- Received grating and completed walk downs with crafts for Blower Room 3 roof reinforcement logistical planning.
- Continued removal of north sample gallery staged waste, including final waste intended for Environmental Restoration Disposal Facility (ERDF) macro-encapsulation container.
- Continued REDOX silo ultrasonic testing.
- Ordered materials for sample box access drilling mock up.
- Removed “waste” items that were identified as stored on top of the REDOX loading dock awning in a potentially hazardous manner.
- Determined that soil waste items currently included in the ERDF Macro encapsulation can at REDOX will NOT need to be removed; which eliminated a highly hazardous work evolution.
- Completed analysis to remove legacy confined space posting from eighth floor Hexone blast enclosure doorway to enable more free access for Ultrasonic Testing (UT) of Hexone tank process piping.
- Commenced work package planning for installation of radio booster equipment within REDOX.
- Received, inspected, tagged, and staged 50 additional powered air purifying respirator (PAPR) assemblies at MO-409 in order to mitigate radiological survey field impacts and increase future field efficiency at REDOX proper.
- Completed radiological “Go/No Go” surveys in REDOX Silo to determine whether internal contamination should be suspected in chemical feed lines.
- Completed work package SM-17-08701 WCN 1 “Perform Repetitive Skilled Based Work” approvals; which incorporated additional fire protection controls.

MAJOR ISSUES

No major issues to report at this time.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

-  Increased Confidence
-  No Change
-  Decreased Confidence

Risk Title	Unmitigated Risk Impacts	Assessment		Comments																																					
		Month	Trend																																						
RL-0040/WBS-040																																									
Explanation of major changes to the project monthly spotlight chart: No major changes to the spotlight chart in May.																																									
Realized Risks (Risks that are currently impacting project cost/schedule)																																									
D4-042: Unexpected Site Conditions - D4	<p>Unexpected site conditions are encountered during D4 activities resulting in recovery actions, causing unplanned, in-scope work, and schedule delays to the project.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Likely (75% to 90%) Worst Case Impacts: \$0K, 300 day</p>			<p>Risk Event: The B Plant ventilation system was shut down due to elevated differential pressure readings in the ACT-002 filter bank. Upon initial investigation, it was determined that the pre-filters were saturated with water and there was standing water within the ACT-001 filter bank. The result of this unexpected occurrence is that the pre-filters and HEPA filters in the ACT-002 bank, and presumably the pre-filters and the HEPA filters in the ACT-001 filter bank, need to be replaced prior to startup of the B Plant ventilation system. Unexpected radiological contamination identified within/outside the containment tent used to initiate the pre-filter change out resulted in delays to the pre-filter replacement. After initial filter change out was completed in October 2017, dose rates on the pre-filters quickly became elevated and were replaced in December 2017. Dose rates on the replaced pre-filters are rising again but at a much slower rate, but will likely require another change in the near future.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Risk recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Work package change notice (WCNs) are being prepared to perform additional investigation of the water intrusion, remove the pre-filters and HEPA filters, and restart the B Plant ventilation system.</td> <td rowspan="4" style="text-align: center;">August 2016</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100%</td> </tr> <tr> <td>Recovery actions were performed in April and May 2017 to fix contamination associated with ACT-002 in and around the containment tent.</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100%</td> </tr> <tr> <td>Requests to expedite the HEPA filter order have been rejected by the manufacturer due to issues with their equipment at the production facility.</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100%</td> </tr> <tr> <td>Execute pre-filter and HEPA filter change out.</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100%</td> </tr> <tr> <td>Repair tents and perform second pre-filter change out in ACT-001 and ACT-002 filter banks.</td> <td style="text-align: center;">November 2017</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100%</td> </tr> <tr> <td>Perform dose rate monitoring of pre-filters in ACT-001 and ACT-002 filter banks.</td> <td style="text-align: center;">January 2018 – Current</td> <td style="text-align: center;">Ongoing</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>Order and receive additional materials (e.g., tents, bags) to support additional pre-filter replacement.</td> <td style="text-align: center;">February 2018</td> <td style="text-align: center;">4/24/18</td> <td style="text-align: center;">100%</td> </tr> <tr> <td>Develop revision to pre-filter change out work package to improve ALARA and general efficiency.</td> <td style="text-align: center;">February 2018</td> <td style="text-align: center;">5/09/18</td> <td style="text-align: center;">100%</td> </tr> <tr> <td>Complete site setup and replace pre-filters.</td> <td style="text-align: center;">May 2018</td> <td style="text-align: center;">6/27/18</td> <td style="text-align: center;">25%</td> </tr> </tbody> </table> <p>Recovery Action Assessment: Recovery actions to replace the pre-filters were initiated in May. The pre-filters and HEPA filters were replaced in both ACT filter banks, and the ventilation system was restarted. Site cleanup activities were initiated and within a day of fan operations, dose rates on the pre-filters became elevated and needed to be monitored on an hourly basis. The pre-filters were changed a second time in a single calendar year to address the elevated dose rates. The containment tents were removed in January 2018 and the site was restored to its original conditions. Daily (M-Th) dose rate surveys are being performed on the pre-filter banks to track the increasing dose rates. New pre-filters and associated materials have been ordered to support an additional pre-filter change out in one or both ACT filter banks once the dose rates exceed threshold limits and the new pre-filter removal work package has been approved. Site setup, including containment tent construction, for the current pre-filter change was started on May 23, 2018. Site cleanup and waste disposition are scheduled to be completed in June 2018.</p>	Risk recovery action(s)	Risk Date	FC Date	%	Work package change notice (WCNs) are being prepared to perform additional investigation of the water intrusion, remove the pre-filters and HEPA filters, and restart the B Plant ventilation system.	August 2016	Complete	100%	Recovery actions were performed in April and May 2017 to fix contamination associated with ACT-002 in and around the containment tent.	Complete	100%	Requests to expedite the HEPA filter order have been rejected by the manufacturer due to issues with their equipment at the production facility.	Complete	100%	Execute pre-filter and HEPA filter change out.	Complete	100%	Repair tents and perform second pre-filter change out in ACT-001 and ACT-002 filter banks.	November 2017	Complete	100%	Perform dose rate monitoring of pre-filters in ACT-001 and ACT-002 filter banks.	January 2018 – Current	Ongoing	N/A	Order and receive additional materials (e.g., tents, bags) to support additional pre-filter replacement.	February 2018	4/24/18	100%	Develop revision to pre-filter change out work package to improve ALARA and general efficiency.	February 2018	5/09/18	100%	Complete site setup and replace pre-filters.	May 2018	6/27/18	25%
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Risk Title	Unmitigated Risk Impacts	Assessment		Comments												
		Month	Trend													
RL-0040/WBS-040																
PRXT-S2-013: Lack of Technical Information	<p>The project does not have enough technical information for ecology to approve the necessary permits.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Medium (26% to 74%) Worst Case Impacts: \$100K, 30 day</p>	●	↓	<p>Risk Event: Draft Completeness letter received from Ecology with comments on April 20, 2018.</p> <table border="1"> <thead> <tr> <th>Risk recovery action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>CHPRC provide response to Completeness letter.</td> <td>5/21/18</td> <td>100%</td> </tr> <tr> <td>RL Review of CHPRC Comments and Submit to Ecology.</td> <td>5/24/18</td> <td>100%</td> </tr> <tr> <td>Formal authorization from Ecology prior to installation of grouting conveyance system.</td> <td>7/30/18</td> <td>N/A</td> </tr> </tbody> </table> <p>Risk Action Assessment: In order to begin grouting PUREX Tunnel 2 by end of August 2018, Ecology must approve the Resource Conservation and Recovery Act of 1976 (RCRA) permit addendum prior to installation of the grout conveyance (July 30, 2018). RL submitted the permit addendum to Ecology on February 14, 2018, with the understanding that further updates will be submitted as more information becomes available through the tunnel investigation activities (now completed) and engineering design maturation.</p> <p>By continuously working with the Federal Project Director to define and clarify exactly what information was needed for the permitting process, the project was able to provide Ecology with sufficient information to approve the necessary permits. Based on the availability of technical information, in combination with the current project status, this risk was closed. It will be removed from the stoplight prior to June reporting.</p>	Risk recovery action(s)	FC Date	%	CHPRC provide response to Completeness letter.	5/21/18	100%	RL Review of CHPRC Comments and Submit to Ecology.	5/24/18	100%	Formal authorization from Ecology prior to installation of grouting conveyance system.	7/30/18	N/A
Risk recovery action(s)	FC Date	%														
CHPRC provide response to Completeness letter.	5/21/18	100%														
RL Review of CHPRC Comments and Submit to Ecology.	5/24/18	100%														
Formal authorization from Ecology prior to installation of grouting conveyance system.	7/30/18	N/A														
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)																
No critical risks identified in <i>May</i> .																
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)																
No high risk threat value risks in <i>May</i> .																
Unassigned Risks (Pending ownership of identified risks/opportunities)																
No unassigned risks identified in <i>May</i> .																

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	3.3	3.6	3.8	0.3	8.9%	(0.1)	-3.0%

Numbers are rounded to the nearest \$0.1 million

CM Schedule Performance: (\$0.3M/8.9%)

The current month (CM) schedule variance is within threshold.

CM Cost Performance: (-\$0.1M/-3.0%)

The CM cost variance is within threshold.

Contract-To-Date (\$M)

WBS 040/ RL-0040 Nuclear Facility D&D	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Estimate to Complete (ETC)	Variance at Completion (VAC)
Total	479.6	476.2	451.3	(3.4)	-0.7%	24.8	5.2%	510.7	486.7	35.4	24.0

Numbers are rounded to the nearest \$0.1 million

Cost to date (CTD) Schedule Performance: (-\$3.4M/-0.7%)

The CTD schedule variance is within reporting thresholds.

CTD Cost Performance: (+\$24.8M/+5.2%)

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

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

Variance at Completion (+\$24.0M/+4.7%)

The variance at completion (VAC) is within reporting thresholds.

Contract Performance Report Formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST (\$M)

WBS 040/RL-0040 Nuclear Facility D&D	FY2018		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	69.0	40.6	28.4
Incremental Scope Pending Change Management	0.0	13.6	(13.6)
RL-0040 – Total	69.0	54.2	14.7

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis

Fiscal year (FY) 2018 projected funding for project breakdown structure (PBS) RL-0040 increased to \$69.0 million. It is anticipated that the majority of the variance will be applied to the PUREX Tunnel 2 scope.

Critical Path Schedule

Critical path analysis can be provided upon request.

MILESTONE STATUS

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

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

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
224B (B Plant) RAWP (2017-34)	8/16/17 (A)	8/16/18
202A (PUREX) Draft B EE/CA to Ecology for review	12/11/17 (A)	7/31/18
221B (B Plant) EE/CA to Ecology for Review	1/11/18 (A)	7/31/18
REDOX RAWP (2017-06) to RL for Review	3/15/18 (A)	6/18/18
Tier 2 Misc. (B Plant) SAP (2017-47) to RL for Review	4/17/18 (A)	6/21/18
Tier 2 Misc. Fac. (B Plant) RAWP (2016-50) to RL for Review	5/2/18 (A)	6/27/18

Section F

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

CH2MHILL
Plateau Remediation Company



R. M. Geimer
Vice President for
K Basin Operations

May 2018
CHPRC-2018-05, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

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

M. A. Wright
Vice President for
Project Technical
Services

PROJECT SUMMARY

The 100K Closure Project continued remediation of Waste Site 116-KE-2 and completed excavation of Waste Site 100-K-50:2; issued the sand filter media removal system test report; and continued preparation for garnet filter media removal system integrated testing. The 324 Building Disposition Project continued to make progress with equipment procurements and fabrication, equipment installation at the mockup, and interference removal activities within the 324 Building. Workers at the 618-10 Burial Ground continued infrastructure demobilization activities.

EMS Objectives and Target Status (Draft)

Objective #	Objective	Target	Due Date	Status
18-EMS-KBOPR-OB1-T1	Improve compliance/pollution and spill prevention	Monitor and evaluate universal waste (UW) and recycling accumulation areas for compliance with CHPRC procedures. Survey spill prevention measures.	9/30/18	64%
18-EMS-324BDP-OB1-T1	Increase EMS awareness	Promote and increase 324 Building Disposition Project (324 BDP) personnel EMS awareness via various means throughout fiscal year (FY) 2018.	9/30/18	60%
18-EMS-324BDP-OB2-T1	Improve compliance	Review and update as needed Resource Conservation and Recovery Act of 1976 (RCRA) inspection implementing procedures, inspection forms, checklists, and work packages (WP) to capture operating record information and assign appropriate metadata.	9/30/18	85%

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	Current Month	Rolling 12 Months	Comment
Days Away, Restricted or Transferred	0	0	N/A
Total Recordable Injuries	0	0	N/A
First Aid Cases	1	28	5/17/18 – An employee went to HPMC after hitting head on a metal keyboard tray. Employee was treated and released back to work without restrictions. (24824)
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

K Basin Operations

- 100K Closure Project:
 - o 100K Soil Remediation:
 - Continued excavation of radioactive waste crib Waste Site 116-KE-2. Remaining volume of material to be remediated was updated during the month based on a civil survey, and is 28,575 bank cubic meters (approximately 60 percent complete). Average production was 38 Environmental Restoration Disposal Facility (ERDF) cans per day.
 - Continued RadCon work planning for the deep excavation currently planned to commence in late June.
 - Continued concrete thrust block demolition and load out.
 - Completed additional soil removal and final in-process sampling for Waste Site 100-K-99.
 - Completed excavation and load out of Waste Site 100-K-50:2.
 - o K West Basin Deactivation:
 - Garnet Filter Media Removal (GFMRs):
 - Testing personnel at Maintenance and Storage Facility (MASF) are 75 percent complete with the GFMRs integrated test set up. 100K Operations Engineered Container Retrieval and Transfer System training completed on May 24, 2018, allowing MASF technicians to complete the test set up. The GFMRs test procedure is approximately 85 percent complete.
 - American Boiler Works (ABW) shipped four Sludge Transport & Storage Container (STSC) Units to HiLine Engineering for instrumentation installation and Overfill Recovery Tool fabrication.
 - o Procurement to support instrumentation installation is 60 percent complete.
 - o Machining of Overfill Recovery Tool parts is 80 percent complete.
 - Garnet Filter Number 3 Sluice Outlet Valve V-305 Risk Mitigation:
 - o On-hold. The project will work V-305 in fiscal year (FY) 2019 during the installation of GFMRs process equipment.
 - Sand Filter Media Removal System (SFMRs):
 - The test report of the SFMRs conceptual design is complete.
 - K West Basin Below-water Debris Characterization:
 - Received Attila software, which will support future dose-to-curie modeling of basin debris fields. The first training session to develop the K West Basin debris model has been scheduled for the end of June.
 - Completed scoping of Fuel Transfer Cask Assembly (TCA) activities for FY2019. Dose-to-curie modeling completed to establish dose rate thresholds upon initial inspection that would trigger a need for sludge removal within the shielded TCA.
 - Submitted settled solids Data Quality Objective (DQO)/Sampling Analysis Plan (SAP) to CHPRC Environmental Compliance for review.
 - Prepared a white paper proposing added use and management of fuel fragment specimens. The white paper is being pursued as a means for notification of intent (NOI) to use the collected specimens as an underwater calibration source to augment deployment of the gamma camera.
 - Revised FY2018 work package, work breakdown structure (WBS) dictionary and basis of estimate (BOE) pursuant to the True Cost or Pricing Data (TCOPD) for Change Order (CO) 326 and planned characterization work. This aligns current activities and plans with achievable scope in FY2018 and supports definitization of CO 326.

- o K East Reactor Interim Safe Storage (ISS):
 - Installed railings and chains on top of the KE Reactor at the 52' elevation where openings in the transit wall panels presented a fall hazard.
 - CHPRC asbestos Technical Authority (TA) completed review of the 105 KE Reactor asbestos white paper. TA comments were incorporated and the completed version was submitted to the RL project engineer to open further discussions with RL management regarding the proposal to leave the majority of the asbestos within KE Reactor during the ISS period.
 - Geotechnical contractor continued development of the draft revision to the 2012 geotechnical engineering study report for the soils that will surround the K East Reactor during Safe Storage Enclosure (SSE) construction and routed for internal review.
 - Finished incorporating functional review comments and began receiving approval signatures on the revision to the 2012 version of DD-49286, *105 KE ISS Project Functional Design Criteria* against DOE orders/guidance documents and CHRPC procedures.
 - Continued development of a detailed cost estimate for construction of the 105 KE SSE.
 - Completed draft and started internal review of the draft revision to DD-53559, *105KE ISS Project Execution Plan*.
 - Developed a conceptual sketch of the new vestibule area in the southwest corner of the SSE that will be included as part of the design modification scope of work. The area will house the generator powered electrical panels and support Surveillance and Maintenance (S&M) entries into the facility and the annular space between the SSE and the exterior of the 105 KE Reactor.
 - Began incorporating updates to DD-51951, *105KE Fire Hazards Analysis* document to incorporate required updates based on limited changes to the SSE design and updates to the ISS S&M pathway/tour path.
- o Ancillary Facility Deactivation & Demolition (D&D):
 - Continued Thermal System Insulation abatement in 165K East Power Control Building.
 - Provided the draft revision of DOE/RL-2005-26, *RAWP for 100K Reactor and Ancillary Facilities* to RL for review.
 - Started gathering background information for performing Air Emission Calculations and development of the Air Monitoring Plan (AMP) in support of DOE/RL-2005-26.
 - Awaiting parts for a roof crawler to conduct load test of the 166KE Fuel Storage Bunker roof in support of 166-KE D&D and Waste Site 130-KE-2 remediation.
 - Started development of the 100D/H Remedial Action Report.
- o Remaining Closure Operations:
 - Continued collecting shrub seeds from various locations around the Hanford Site to support FY2019 re-vegetation efforts (includes 618-10).
 - Waste Sites 331LSLT1 and 331LSLST2 work packages are in development in parallel with OJEDA training. Mobilization for OJEDA is planned for June.
 - 618-10 Burial Ground crews completed backfill/contouring and applying fixative at Waste Site 600-276 (Little Egypt).

River Risk Management Project

- 618-10 Burial Ground:
 - o Continued to work on environmental closeout documentation.
 - o Continued infrastructure demobilization activities.
 - o Completed recontouring of the seven acre 618-10 Burial Ground footprint; the remaining site complex is not complete.
 - o Supported the K Basin Operations (KBO) organization in remediation of the 600-276 Waste Site (Little Egypt).
 - o Project Technical Support (PTS):

- Inactivated training course 105626, *618-10 BEP*, as the 618-10 project no longer has facilities that require a Building Emergency Plan (BEP).
- Completed the removal of final two trailers MO6114 and MO6116 – construction completion document (CCD) complete.
- 324 Building Disposition Project
 - o Successfully completed the annual third party inspection of the 324 Building freight elevator.
 - o Completed the quarterly chemical inventory inside 324 Building.
 - o Successfully performed eight monthly, eight annual, two bi-annual and one tri-annual preventative maintenance packages.
 - o The Hanford Fire Department performed three separate annual tests and one bi-annual test at the 324 Building.
 - o RL review comments were resolved on the 324 Building Safety Basis documents annual update and the documents were submitted to RL for final approval.
 - o Remotely retrieved one hose reel from A-Cell and the second hose reel from D-Cell and packaged for disposal.
 - o Completed geotechnical testing of the soils from the 324 Building external bore holes.
 - o Continued cell sealing activities for A-Cell, C-Cell, D-Cell, and Cask Handling Area.
 - o Prepped the remaining waste in D-Cell for removal.
 - o Completed Radiochemical Engineering Complex (REC) Core Drill Sample compression strength testing to support structural modification design.
 - o Fabricated additional cell seals at subcontractor's facility.
 - o Progressed the Intrusive Sampling and Characterization of REC Cubicles on A-Cell.
 - o Initiated Transfer Mechanism installation at the Mockup.
 - o Completed grout process testing at the subcontractor's facility in support of the remote excavator arm (REA) through-supports.
 - o Completed installation of two REA through-supports at the Mockup.
 - o Progressed the C-Cell Gallery Floor Tile Removal to support C-Cell footing rebar investigation.
 - o Completed Hazard Review Board (HRB) for the Sample Load Out Room Demolition package.
 - o Conducted the Factory Acceptance Testing (FAT) for the cameras and lighting for 324 Building.
 - o Completed the Mockup REA FAT.
 - o Received the water delivery system for the Mockup.
 - o Received 12 waste bins for the Mockup.
 - o Awarded the Modified Airlock Rail System contract.
 - o PTS Support:
 - Training and Procedures
 - Developed and implemented new course 324076, *Gap Training for a Hot Cell Operations Procedures*, to go over the changes in several procedures with the personnel operating to them.
 - Operations Program - ConOps/Work Control/Conduct of Work
 - Provided guidance on use of attachment within a work package and appropriate content
 - Emergency Preparedness (EP)
 - Conducted 324-EPDF-050218 evaluated limited Scope ICP Drill.

MAJOR ISSUES

Issue

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

Corrective Action

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

Status

Timely Orders have been issued and a Notification of Differing Site Conditions Letter (CHPRC-1801178) was transmitted to RL in April. Workers at the 324 Building finalized high alpha contamination recovery, implemented corrective actions from RL, and resumed cell cleanout activities.

Issue

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

Corrective Action

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

Status

Ongoing.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

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

Risk Title	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
RL-0041/WBS-041													
Explanation of major changes to the project monthly spotlight chart: No major changes to the spotlight chart for May.													
Realized Risks (Risks that are currently impacting project cost/schedule)													
RCC-300-296-01: Latent Conditions Impact Facility Modification	<p>A higher-than-expected ratio of alpha to beta/ gamma contamination was detected in a localized area in the REC airlock after removing waste from C-Cell.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Likely (75% to 90%) Worst Case Impacts: 72 days</p>	●	↔	<p>Risk Event: A higher-than-expected ratio of alpha to beta/gamma contamination was detected in a localized area in the REC airlock after removing waste from C-Cell. Discovery of an elevated latent contamination level upon removal of the waste was unexpected and beyond the reasonable control of CHPRC.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr style="background-color: #f2f2f2;"> <th style="text-align: left;">Recovery action(s)</th> <th style="text-align: left;">FC Date</th> <th style="text-align: left;">%</th> </tr> </thead> <tbody> <tr> <td>Resume cell cleanout activities following legacy contamination discovery.</td> <td>4/4/2018</td> <td>100</td> </tr> </tbody> </table> <p>Recovery Assessment: No major changes in May. Timely Orders have been issued and a Notification of Differing Site Conditions Letter (CHPRC-1801178) was transmitted to RL in early April. Workers at the 324 Building finalized high alpha contamination recovery, implemented corrective actions from RL, and resumed cell cleanout activities on April 4, 2018. However, the project will continue to monitor corresponding impacts and segregate costs as a result of this risk being realized. The estimate to complete (ETC) has been updated. The FY2019 Annual Update is in development to capture known impacts.</p>	Recovery action(s)	FC Date	%	Resume cell cleanout activities following legacy contamination discovery.	4/4/2018	100			
Recovery action(s)	FC Date	%											
Resume cell cleanout activities following legacy contamination discovery.	4/4/2018	100											
RCC-300-296-13: 300-296 Design review issues arise for the structural modification to the 324 Building.	<p>Demolition of existing structures and installation of structural modifications to the 324 Building are necessary to provide structural support to B-Cell during excavation of the radiological contaminated soil. There is limited access and workspace in the 324 Building, which could lead to design review issues impacting the installation of the structural modifications. The impacts may result in in-scope unplanned work causing cost and schedule impacts to the project.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Very Likely (>90%) Worst Case Impacts: \$640K, 160 days</p>	●	↔	<p>Risk Event: Upon review of the 30 percent design submittal, it was determined that the cell wall loading/limitations were inadequate and required additional clarification.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr style="background-color: #f2f2f2;"> <th style="text-align: left;">Recovery action(s)</th> <th style="text-align: left;">FC Date</th> <th style="text-align: left;">%</th> </tr> </thead> <tbody> <tr> <td>Contractor Prepare and Submit Structure Modification Design -30%-60% (VE2810)</td> <td>8/1/2018</td> <td>95</td> </tr> <tr> <td>Contractor Prepare and Submit Structure Modification Design -Final (VE2810A)</td> <td>11/27/2018</td> <td>On going</td> </tr> </tbody> </table> <p>Recovery Assessment: No major changes in May. To reduce the potential impacts associated with conflicting drawing information and performing structural modifications, applicable design efforts were updated to encompass further analysis of cell footings, load limitations, and field demonstrations. These efforts will ensure modifications are successfully performed and completed. The additional efforts have been incorporated into the field execution schedule (FES), along with the ETC, to reflect impacts of risk being realized.</p>	Recovery action(s)	FC Date	%	Contractor Prepare and Submit Structure Modification Design -30%-60% (VE2810)	8/1/2018	95	Contractor Prepare and Submit Structure Modification Design -Final (VE2810A)	11/27/2018	On going
Recovery action(s)	FC Date	%											
Contractor Prepare and Submit Structure Modification Design -30%-60% (VE2810)	8/1/2018	95											
Contractor Prepare and Submit Structure Modification Design -Final (VE2810A)	11/27/2018	On going											
RCC-300-296-03: Mockup Testing and Qualification of Remote Equipment / Process Identifies Major Modification Requirements.	<p>Issues such as equipment interferences, differing as-found conditions than planned, equipment reliability, etc., arise prior to/during mockup testing, leading to re-design of equipment and resulting in cost and schedule delays.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Medium (26% to 74%) Worst Case Impacts: \$773K, 80 Days</p>	●	↔	<p>Risk Event: During recent vendor tests and/or FAT, issues and conditions were identified with mockup equipment, resulting in additional redesign, materials, and/or fabrication efforts greater than planned. Remote equipment procurements that have resulted in cost and/or schedule impacts include the REA system components (through support and dummy post assemblies), and transfer mechanism (electrical components).</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr style="background-color: #f2f2f2;"> <th style="text-align: left;">Recovery action(s)</th> <th style="text-align: left;">FC Date</th> <th style="text-align: left;">%</th> </tr> </thead> <tbody> <tr> <td>Perform Construction Acceptance Test (CAT) for Mockup Equipment Install - Cameras and Lighting; REA system with HPU; Transfer Mechanism (VE0640)</td> <td>7/17/2018</td> <td>On Going</td> </tr> </tbody> </table> <p>Recovery Assessment: No major changes in May. Equipment procurements are continuously monitored and tracked to account for additional redesign efforts, materials, and fabrication efforts resulting in cost and/or schedule impacts. This risk will be</p>	Recovery action(s)	FC Date	%	Perform Construction Acceptance Test (CAT) for Mockup Equipment Install - Cameras and Lighting; REA system with HPU; Transfer Mechanism (VE0640)	7/17/2018	On Going			
Recovery action(s)	FC Date	%											
Perform Construction Acceptance Test (CAT) for Mockup Equipment Install - Cameras and Lighting; REA system with HPU; Transfer Mechanism (VE0640)	7/17/2018	On Going											

				realized through satisfactory completion of CAT. Impacts have been incorporated into the project schedule, along with the ETC, to reflect impacts of risk being realized.									
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)													
RCC-300-296-02: 300-296 Loss of ventilation in the 324 hot cells or Zone II	Zone I or II ventilation system failure causes loss of ventilation and shutdown of soil remediation activities, resulting in in-scope unplanned work, and subsequently resulting in schedule impacts. Risk Handling Strategy: Control Probability: Medium (26% to 74 %) Worst Case Impacts: \$0K, 48 days	● ↔		<p>Risk Trigger Metric: Ventilation fan or other system component failure may prevent airlock entry, which is needed for cleanout of REC cells, penetration sealing, and installation of equipment.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>324 Min. Safe Spare Parts and Routine Preventive Maintenances (PMs) (R03095)</td> <td>9/30/2018</td> <td>65.6</td> </tr> </tbody> </table> <p>Mitigation Assessment: No major changes in May. Ventilation PM is being routinely performed. Spare fan parts are available for minor failures if occurrence is realized.</p>	Mitigation action(s)	FC Date	%	324 Min. Safe Spare Parts and Routine Preventive Maintenances (PMs) (R03095)	9/30/2018	65.6			
Mitigation action(s)	FC Date	%											
324 Min. Safe Spare Parts and Routine Preventive Maintenances (PMs) (R03095)	9/30/2018	65.6											
RCC-300-296-07: 300-296 Failure of a REC Cranes (B-Cell, A-Cell, A-D & Airlock, or CHA cranes)	Major crane repair must be performed during operations. This in-scope, unplanned work results in cost and schedule impacts to the project. Risk Handling Strategy: Control Probability: Likely (75% to 90%) Worst Case Impacts: \$832.7K, 144 days	● ↔		<p>Risk Trigger Metric: REC crane failure occurs during operations.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Replacement Parts List – REC Cranes</td> <td>8/28/2018</td> <td>On going</td> </tr> <tr> <td>Order and Procure Spare Parts – REC Cranes</td> <td>9/27/2018</td> <td>On going</td> </tr> </tbody> </table> <p>Mitigation Assessment: No major changes in May. The project experienced loss of the CHA crane in November 2017. Final repairs and load testing for the 30-ton CHA crane were completed and the crane was returned to service in January 2018. The project is in the process of acquiring evaluations and recommendations with manufacturers to assist with determining preventive maintenance, spare part requirements, and corrective maintenance in the event of necessary repairs. These efforts are expected to reduce the potential for impacts.</p>	Mitigation action(s)	FC Date	%	Replacement Parts List – REC Cranes	8/28/2018	On going	Order and Procure Spare Parts – REC Cranes	9/27/2018	On going
Mitigation action(s)	FC Date	%											
Replacement Parts List – REC Cranes	8/28/2018	On going											
Order and Procure Spare Parts – REC Cranes	9/27/2018	On going											
RCC-300-296-08: 300-296 Failure of a cell shield door	Failure of shield door(s) or crane shield door(s) shuts down cleanout of REC cells/airlock, penetration sealing in airlock, and equipment installation efforts. It may not be possible to repair a shield door due to radiation dose rate and location. The door failure results in in-scope unplanned work and subsequently causes cost and schedule impacts to the project. Risk Handling Strategy: Accept Probability: Medium (26% to 74%) Worst Case Impacts: \$460K, 48 days	● ↔		<p>Risk Trigger Metric: During operation of cleanout activities, a shield door becomes inoperable and will not open or close. Due to dose rates, it may not be possible to repair a shield door.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Perform assessment (PRC-SRP-00043) on shield doors</td> <td>-</td> <td>100</td> </tr> </tbody> </table> <p>Mitigation Assessment: No major changes in May. An assessment of shield door(s) or crane shield door(s) was performed (PRC-SRP-00043). As a result, additional PMs have been implemented and spare parts are available for minor failures if occurrence is realized. Currently, no additional mitigation efforts are scheduled. The risk will continue to be monitored until it no longer poses a threat to the project.</p>	Mitigation action(s)	FC Date	%	Perform assessment (PRC-SRP-00043) on shield doors	-	100			
Mitigation action(s)	FC Date	%											
Perform assessment (PRC-SRP-00043) on shield doors	-	100											
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)													
No high risks identified in May.													
Unassigned Risks (Pending ownership of identified risks/opportunities)													
RCC-300-296-04DOE: 300-296 Seismic Event (Force Majeure)	A Force Majeure incident, such as seismic event, results in the loss of structural integrity; causing cost and schedule impacts to the project delivery. CHPRC Comment: CHPRC cannot manage the geological seismic movement that may impact the structural integrity of a building. Therefore, this risk is proposed to be transferred to DOE. DOE has “informally” accepted this risk as a transfer risk. A formal letter of acceptance (CHPRC-1705651) was sent to RL on December 12, 2017. Once this risk has been formally accepted, via acknowledgement from the RL contracting officer, it will be removed from the stoplight chart.												
RCC-300-296-23DOE: 300-296 Large Brush Fire (Force Majeure)	A brush fire ignited on the Hanford Site near the proximity of the 300-296 Waste Site, resulting in cost and schedule delays. CHPRC Comment: This risk was identified as “Force Majeure” and is beyond the capabilities of CHPRC to manage. Therefore, this risk was proposed to be transferred to DOE. DOE has “informally” accepted this risk as a transfer risk. A formal letter of acceptance (CHPRC-1705651) was sent to RL on December 12, 2017. Once this risk has been formally accepted, via acknowledgement from the RL contracting officer, it will be removed from the stoplight chart.												
RCC-300-296-27: 300-296 Requirement Changes Result in Additional Work/Entry Prerequisite Training	Due to complex-wide or facility specific changes in requirements outside of CHPRC’s ability to manage (e.g. technical documents, procedures, training), project delivery will be impacted in terms of cost and schedule. CHPRC Comment: Changes to DOE orders, federal or state regulations, waste acceptance criteria established by another site contractor, or another DOE site could impact the baseline scope/schedule/cost. Although a contract change is required to incorporate changes to DOE orders, no contract change is required for federal or state regulations or for waste acceptance criteria changes. The potential criteria changes are outside of CHPRC’s ability to manage. Therefore, this risk was proposed to be transferred to DOE. DOE has “informally” accepted this risk as a transfer risk. A formal letter of acceptance (CHPRC-1705651) was sent to RL on December 12, 2017. Once this risk has been formally accepted, via acknowledgement from the RL contracting officer, it will be removed from the stoplight chart.												

PROJECT BASELINE PERFORMANCE

Current Month

(\$M)

WBS 041/RL-0041 Nuclear Facility D&D – River Corridor	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	19.2	12.7	10.5	(6.5)	-33.8%	2.2	17.4%

Numbers are rounded to the nearest \$0.1 million

CM Schedule Performance (-\$6.5M/-33.8%)

The current month unfavorable schedule variance is primarily caused by the 324 Building Disposition Project, which experienced delays in performing cell sealing, core drilling, geo-probe pulling, and 324 Building structural modifications due to the high Alpha latent condition discovered at the 324 Building in prior months, as well as a subcontractor delay in completing the structural modifications design. In addition, other contributors to the overall current month schedule variance is due to the accelerated performance of AB Waste Site remediation work scope planned in October 2017 through November 2018 completed ahead of schedule in FY2016. The 183.2KE backfill started earlier than planned and was accelerated because of shorter turn-around times between pit 23 and Waste Site 183.2KE. Radioactive contamination was discovered below the designed depth of the excavation at Waste Site 116-KE-2, during decommissioning of the sample well that goes through the crib. As a result, the excavation volume and schedule duration have increased.

CM Cost Performance (+\$2.2M/17.4%)

The current month favorable cost variance is partially due to the collection of the majority of the ERDF actual costs in Project Breakdown Structure (PBS) RL-0013. CHPRC was directed by the FY2018 annual performance measure baseline (PMB) update to plan ERDF operations in the PMB under PBS RL-0013. Subsequently, CHPRC was directed that ERDF operations could not be transferred from RL-0041 to RL-0013 until after the FY2018 appropriations were approved by Congress. As FY2018 appropriations have been finalized, ERDF is now costed under PBS RL-0013. A baseline change request (BCR) to transfer the costs from PBS RL-0041 to PBS RL-0013 will be processed later in fiscal year 2018. Additionally, labor variance and general and administrative (G&A) variance distributions were processed in May due to an over liquidation of the labor adder pool and a higher G&A base cost than planned, caused by additional authorized funding and scope above the FY2018 forecast to complete. The current month cost variance is partially offset due to increased costs for the subcontractor that is developing the 60 percent design for structural modifications at the 324 Building due to additional design requirements including more extensive building modeling, soil stabilization and building verifications and demonstrations. The variance is also offset due to increased material and subcontractor costs associated with the 165KE Asbestos Abatement. Additional Mission Support Alliance, LLC (MSA) support (Crane and Rigging & Motor Carrier Services) costed in May to support required overtime shifts. These additional MSA resources were needed to build and move scaffolding throughout the 165KE building. Finally, unplanned material orders were received for miscellaneous items needed to support the asbestos abatement of 165KE.

Contract-to-Date (\$M)

WBS 041/ RL-0041 Nuclear Facility D&D – River Corridor	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Estimate to Complete (ETC)	Variance at Completion (VAC)
Total	589.7	571.0	506.5	(18.7)	-3.2%	64.6	11.3%	677.0	601.2	94.7	75.7

Numbers are rounded to the nearest \$0.1 million

CTD Schedule Performance (-\$18.7M/-3.2%)

The schedule variance is within reporting thresholds.

CTD Cost Performance (+\$64.6M/+11.3%)

The favorable cost variance is primarily due to completing Confirmatory Sampling - No Action (CSNA) waste sites early and under cost. In addition, less demolition was required for the K East Sedimentation Basin and fewer resources are supporting the level of effort (LOE) program management scope. Some resources have been diverted to other priority work scope and some resource sharing has occurred. The favorable cost variance was partially offset by the cost overruns in prior years for the utilities project. The 618-10 Burial Ground Complex also realized favorable cost variances with shared resources, lower drum processing costs, and excavation and backfill efficiencies at the 316-4 Waste Site and the 618-10 Burial Ground. As discussed in the current month cost variance, a majority of the ERDF costs are collected in RL-0013, contributing to the contract to date cost variance. These favorable variances are slightly offset by a negative CTD variance in the 324 Building Disposition Project primarily due to difficulties in execution of airlock cleanout, higher-than-planned engineering costs resulting from design changes associated with the mockup and 324 structural design, and with the design and fabrication of essential procurements. In addition, inefficiencies with work in the airlock negatively contributed to the variance.

Variance at Completion (+\$75.7M/+11.2%)

The 100K Closure positive VAC is primarily due to labor; fewer resources have been supporting the LOE program management scope. Some resources have been diverted to other priority work scope, and some resource sharing has occurred. The variance at completion (VAC) is also due to the ERDF operations forecast transferring to RL-0013 with the budget remaining in PBS RL-0041 until a BCR can be processed later in in fiscal year 2018. The remaining VAC is primarily due to the implementation of efficiencies and staffing ramp downs at the 618-10 Burial Ground. Offsetting the positive variance, the 324 Building Disposition Project experienced increased costs associated with airlock cleanout, engineering and design activities, continued staff ramp up, and equipment procurement activities.

Contract Performance Report Formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST (\$M)

WBS 041/RL-0041 Nuclear Facility D&D – River Corridor	FY2018		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	143.6	137.8	5.8
Incremental Scope Pending Change Management	0.0	1.2	(1.2)
RL-0041 - Total	143.6	139.0	4.6

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis:

FY2018 projected funding for PBS RL-0041 is \$143.6 million. The delta between the spending forecast and projected funding levels for FY2018 is partially due to attrition and staffing ramp-downs at the 618-10 Burial Ground project. Additionally, the delta between the spend forecast and projected funding levels for the 324 Building Disposition Project is primarily due to scope deferral related to structural modifications. The fiscal year spend forecast (FYSF) funds delta is unfavorably offset due to the FY2018 annual PMB update direction to plan ERDF operations in the PMB under PBS RL-0013. Subsequently, CHPRC was directed that ERDF operations could not be transferred from RL-0041 to RL-0013 until after the FY2018 appropriations were approved by Congress. As FY2018 appropriations have been finalized, ERDF is now forecasted, costed, and funded under PBS RL-0013. However, ERDF actuals for the first half of FY2018 remain in RL-0041 until a cost transfer can be processed.

Critical Path Schedule:

Critical Path Analysis can be provided upon request.

MILESTONE STATUS

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

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-016-00B	Complete all 300 Area remedial actions in accordance with ROD requirements.	9/30/2018		6/11/2018	Clarification regarding completion of the milestone resulted in adjusting the forecast completion date to line up with completion of the closeout verification package (CVP) instead of the infrastructure demobilization activities.
M-094-00	Complete disposition of all 300 Area surplus facilities, excluding 324 Building.	9/30/2018	7/10/2017 (A)		On October 19, 2017, issued letter-notifying RL of the completion on July 10, 2017.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL Review, Comment & Concur DSA/TSR revision	3/21/18 (A)	4/25/18 (A)
RL and Regulator (EPA) Review of CVP and Waste Site Reclassification Form for 618-10 Burial Ground	3/26/18 (A)	5/17/18 (A)
RL Certify and Submit Permit Modification Package to Ecology (1324)	4/16/18 (A)	6/7/18
RL Prepare, Review, Approve & Issue DSA/TSR SER Revision	4/2/18 (A)	6/20/18
RL Certify Information – RL Manager Letter to Ecology (1301, 1325)	6/4/18	6/25/18
Ecology receive the certified CHPRC and RL Information (1301, 1325)	6/7/18	6/25/18
Class 1 Prime modification RL Certification send Class 1 Prime to Ecology for Action to close 1301-N and 1325-N	6/26/18	8/21/18
RL Approval of SNR	7/23/18	8/16/18
Deliver attachment(s) and certification(s) to RL (1301, 1325)	8/3/18	8/5/18

Section G

Fast Flux Test Facility Closure (RL-0042)

CH2MHILL
Plateau Remediation Company



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

May 2018
CHPRC-2018-05, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

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

EMS OBJECTIVES AND TARGET STATUS

None currently identified.

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

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

KEY ACCOMPLISHMENTS

RL-0042 Accomplishments

- Continued updating existing 400 area electrical drawings as an input to completing the Tagout Authorization Form (TAF) for the 400 Area electrical circuit verification work package (WP).
- Performed visual portion of the 400 Area electrical circuit verifications. The verifications are a predecessor activity to completing the TAF for the intrusive circuit verification work package and completing the P-16 pump installation.
- Completed arc flash calculations required as an input to the FFTF 481 Building lights and contactor replacement work package.
- Submitted a Plant Forces Work Review (PFWR) for replacing the C-670 electric fire pump control panel.
- Received Interpretation Clarification Request from the Hanford Fire Marshall that justifies extending the T-58 and T-87 internal tank inspections from three years to five years. Fiscal Year (FY) 2019-2020 planning will include actions necessary to extend the life of the tanks by applying a poly-urea liner inside both tanks before the next five-year inspection period is due.
- Completed a lead compliance plan to strip lead-based paint from the 481 Building fire water lines for inclusion in the WP that will be used to replace sections of the leaking lines.

MAJOR ISSUES

Issue:

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

Corrective Action: A new WP to physically verify 400 Area electrical circuits for water utility equipment will be developed. This verification must be completed before further work is performed on the 400 Area water utility equipment. This also affects the completion of a number of WPs that are currently in development/review.

Status: WP continues to be developed to physically verify 400 Area electrical circuits due to inaccuracies discovered in the electrical drawings for the water utilities equipment. The 400 Area drawing for the 400 Area electrical circuit verification WP has been completed and the TAF continues to be prepared. A Hazard Review Board (HRB) was held for the non-LO/TO portion of the 400 Area electrical circuit verifications WP. A partial release will allow visual inspections to be performed in advance of work that will be performed under the TAF. A resource request was submitted to start the visual verification work.

RISK MANAGEMENT STATUS

No key risks currently identified.

PROJECT BASELINE PERFORMANCE

Current Month

(\$M)

RL-0042 FFTF Closure	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	0.2	0.2	0.1	(0.0)	-5.9%	0.1	38.4%

Numbers are rounded to the nearest \$0.1M

CM Schedule Performance: (-\$0.0M/-5.9%)

The schedule variance is within reporting thresholds.

CM Cost Performance: (\$0.1M/38.4%)

The cost variance is within reporting thresholds.

Contract-to-Date (\$M)

RL-0042 FFTF Closure	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Estimate to Complete (ETC)	Variance at Completion (VAC)
Total	25.7	25.7	21.3	(0.0)	-0.0%	4.4	17.2%	26.5	21.9	0.6	4.6

Numbers are rounded to the nearest \$0.1 million

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

The schedule variance is within reporting thresholds.

CTD Cost Performance (+\$4.4M/+17.2%)

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

Variance at Completion (+\$4.6M/+17.2%)

The Variance at Completion is within reporting thresholds.

Contract Performance Report Formats are provided in Appendix A.

FUNDS VS. SPEND FORECAST (\$M)

RL-0042 FFTF Closure	FY2018		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	4.0	1.9	2.1
Incremental Scope Pending Change Management	0.0	0.0	0.0
RL-0042 – Total	4.0	1.9	2.1

Numbers are rounded to the nearest \$0.1 million

Funds Analysis

FY2018 projected funding for project breakdown structure (PBS) RL-0042 is \$4.0 million. The spending forecast of \$2.1 million includes inspections of the fire suppression system tanks and minor repairs.

Critical Path Schedule

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

MILESTONE STATUS

None currently identified.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS/DECISIONS

None currently identified.

Appendix A

Contract Performance Reports

Format 1 - Work Breakdown Structure

Format 2 - Organizational Categories

Format 3 - Baseline

Format 4 - Staffing

Format 5 - Explanation and Problem Analysis

CH2MHILL
Plateau Remediation Company



May 2018
CHPRC-2018-05, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

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

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

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD										
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME Plateau Remediation Contract		a. FROM (YYYYMMDD) 2018 / 04 / 23										
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 05 / 27										
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO X YES (YYYYMMDD) 2009 / 09 / 18												
5. CONTRACT DATA																
a. QUANTITY 1	b. NEGOTIATED COST 5,588,957	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 394,955	d. TARGET PROFIT/FEE 241,605	e. TARGET PRICE 5,830,563	f. ESTIMATED PRICE 6,186,343	g. CONTRACT CEILING 5,830,563	h. ESTIMATED CONTRACT CEILING 6,186,343									
6. ESTIMATED COST AT COMPLETION				7. AUTHORIZED CONTRACTOR REPRESENTATIVE												
		MANAGEMENT ESTIMATE AT COMPLETION (1)	CONTRACT BUDGET BASE (2)	VARIANCE (3)	a. NAME (Last, First, Middle Initial) Dickerson, Kala K		b. TITLE Prime Contract Compliance Manager									
a. BEST CASE		5,877,902			c. SIGNATURE		d. DATE SIGNED (YYYYMMDD)									
b. WORST CASE		6,029,183														
c. MOST LIKELY		5,944,738	5,983,913	39,175												
8. PERFORMANCE DATA																
CAPN.PBS ITEM (1)	CURRENT PERIOD					CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)
WORK SCHEDULED (2)	WORK PERFORMED (3)	SCHEDULE (5)		COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	SCHEDULE (10)		COST (11)							
RL-0011 Nuclear Mat Stab & Disp PFP	0	26	6,449	26	-6,422	988,662	972,984	1,114,825	-15,678	-141,841	0	0	0	988,662	1,197,941	-209,280
RL-0012 SNF Stabilization & Disp	3,439	3,170	4,042	-270	-873	728,788	728,420	699,680	-368	28,740	0	0	0	745,246	717,826	27,419
RL-0013 Solid Waste Stab & Disp	13,932	12,296	9,951	-1,636	2,345	1,276,822	1,271,247	1,188,864	-5,575	82,383	0	0	0	1,362,465	1,287,277	75,188
RL-0030 Soil & Water Rem-Grndwtr/Vadose	13,146	12,000	8,920	-1,146	3,080	1,491,271	1,485,148	1,436,976	-6,122	48,172	0	0	0	1,532,754	1,482,078	50,676
RL-0040 Nuc Fac D&D - Remainder Hanfrd	3,349	3,647	3,755	297	-108	479,591	476,159	451,327	-3,432	24,833	0	0	0	489,666	465,693	23,974
RL-0041 Nuc Fac D&D - RC Closure Proj	19,236	12,743	10,520	-6,493	2,223	589,702	571,013	506,460	-18,689	64,553	0	0	0	649,460	573,716	75,744
RL-0042 Nuc Fac D&D - FTF Proj	229	215	133	-13	83	25,714	25,699	21,287	-15	4,412	0	0	0	26,487	21,920	4,567
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														131,450	131,450	0
e. SUBTOTAL	53,332	44,097	43,769	-9,235	328	5,580,549	5,530,670	5,419,418	-49,879	111,252	0	0	0	5,926,190	5,877,902	48,288
f. MANAGEMENT RESERVE														66,835		
g. TOTAL	53,332	44,097	43,769	-9,235	328	5,580,549	5,530,670	5,419,418	-49,879	111,252	0	0	0	5,993,026		
9. RECONCILIATION TO CONTRACT BUDGET BASELINE																
a. VARIANCE ADJUSTMENT																
b. TOTAL CONTRACT VARIANCE																
								-49,879	111,252					5,993,026	5,877,902	115,123

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

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

CLASSIFICATION (When Filled In)

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

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

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME Plateau Remediation Contract		a. FROM (YYYYMMDD) 2018 / 04 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 05 / 27	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18			

WBS.Resp Org Group ITEM (1)	CURRENT PERIOD						CUMULATIVE TO DATE						REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)		
	WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)								
34 - Env Program & Strategic Plng	1,085	1,084	526	0	559	82,075	81,479	74,633	-596	6,846	0	0	0	85,652	79,032	6,620		
35 - Business Services	0	0	46	0	-46	477,296	477,296	453,565	0	23,731	0	0	0	477,296	453,565	23,731		
36 - Prime Contract & Proj Integr	197	197	97	0	100	8,141	8,141	4,843	0	3,298	0	0	0	8,807	5,368	3,439		
3B - PFP Closure Project	0	26	6,449	26	-6,422	899,880	884,202	1,033,767	-15,678	-149,565	0	0	0	899,880	1,116,884	-217,005		
3C - Waste & Fuels Management Project	13,705	12,118	9,668	-1,587	2,450	1,161,642	1,156,118	1,072,524	-5,525	83,593	0	0	0	1,246,285	1,159,359	86,926		
3D - Soil & Groundwater Remediation	12,002	10,856	8,365	-1,146	2,491	1,307,811	1,302,284	1,254,943	-5,527	47,342	0	0	0	1,345,518	1,295,514	50,004		
3G - K Basin Oper & Plateau Remediation Project	8,012	5,947	5,855	-2,065	92	1,012,577	1,011,195	954,868	-1,382	56,328	0	0	0	1,043,770	984,273	59,497		
3H - River Risk Management Project	14,775	10,028	8,951	-4,747	1,078	214,171	196,446	176,946	-17,725	19,499	0	0	0	259,807	244,251	15,556		
3K - Central Plateau Risk Reduction	3,555	3,839	3,812	284	26	416,956	413,509	393,328	-3,447	20,181	0	0	0	427,726	408,206	19,520		
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														131,450	131,450	0		
e. SUBTOTAL (Performance Measurement Baseline)	53,332	44,097	43,769	-9,235	328	5,580,549	5,530,670	5,419,418	-49,879	111,252	0	0	0	5,926,190	5,877,902	48,288		
f. MANAGEMENT RESERVE														66,835				
g. TOTAL	53,332	44,097	43,769	-9,235	328	5,580,549	5,530,670	5,419,418	-49,879	111,252	0	0	0	5,993,026				

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

CONTRACT PERFORMANCE REPORT FORMAT 3 - BASELINE													DOLLARS IN THOUSANDS			Form Approved OMB No. 0704-0188		
1. CONTRACTOR CH2M HILL Plateau Remediation Company 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: 2018/04/23 b. TO: 2018/05/27						
5. CONTRACT DATA			a. ORIGINAL NEGOTIATED COST 4,312,366		b. NEGOTIATED CONTRACT CHANGE \$1,276,591		c. CURRENT NEGOTIATED COST (A + B) \$5,588,957		d. ESTIMATED COST AUTH UNPRICED WORK \$394,955		e. CONTRACT BUDGET BASE (C + D) \$5,983,913		f. TOTAL ALLOCATED BUDGET \$5,993,025		g. DIFFERENCE (E - F) (59,113)			
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)					
ITEM (1)			BCWS CUM TO DATE (2)	BCWS FOR REPORT PERIOD (3)	SIX MONTH FORECAST											UNDISTRIB BUDGET (16)	TOTAL BUDGET (17)	
					+1 Jun-18 (4)	+2 Jul-18 (5)	+3 Aug-18 (6)	+4 Sep-18 (7)	+5 Oct-18 (8)	+6 Nov-18 (9)	FY09-13 (10)	FY14 (11)	FY15 (12)	FY16 (13)	FY17 (14)	FY18 (15)		
a. PM BASELINE (BEGIN OF PERIOD)			5,527,218	52,651	39,781	40,181	46,211	167,933	0	0	3,391,477	391,653	471,323	504,826	485,027	558,611	71,058	5,873,974
b. BASELINE CHANGES AUTH DURING REPORT PERIOD																		
BCR-012-18-006R0 - Incorporate Scope Changes-RL-0012																		
BCR-012-18-007R0 - MR Draw for Sludge Transport System Cask Lid Fabrication																		
BCR-013-18-019R0 - Incorporate CO 322 IDF Revised Operational Requirements																		
BCR-013C-18-021R0 - W-135 EVM Type Change for Env Reg Permits																		
BCR-030-18-019R0 - Incorporate Additional GW Monitoring Plans for DWMUs																		
BCR-030-18-020R0 - MR Draw for 100-NR-1 & 100-NR-2 TI Waiver																		
BCR-030-18-021R0 - MR Draw for 200-UP-1 Drilling Standby																		
BCR-041-18-017R0 - Incorporate Additional Scope for CO 306 100D/H Remedial Acti																		
BCR-041-18-019R0 - Convert AB Head House Waste Site Remediation PP to MR																		
BCR-041-18-020R0 - Convert Planning Package for 100K Project Management to Mana																		
BCR-PRC-18-022R0 - Undistributed Budget Adjustments May 2018																		
c. PM BASELINE (END OF PERIOD)			5,580,549	53,332	40,318	40,564	46,719	218,041	0	0	3,391,477	391,653	471,323	504,826	485,027	550,434	131,450	5,926,190
7. MANAGEMENT RESERVE																		
8. TOTAL																		
																	66,835	5,993,025

CLASSIFICATION (When Filled In)

**CONTRACT PERFORMANCE REPORT
FORMAT 4 - STAFFING**

Dollars in: FTE

FORM APPROVED
OMB No. 0704-0188

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME Plateau Remediation Contract		a. FROM (YYYYMMDD) 2018 / 04 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 05 / 27	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18			

5. PERFORMANCE DATA		FORECAST (Non-Cumulative)														AT COMPLETION (15)	
WBS.Resp Org Group ORGANIZATIONAL CATEGORY (1)	ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS								
			+1	+2	+3	+4	+5	+6	1st QTR FY19	2nd QTR FY19	3rd QTR FY19	FY19-LC	ATCOMPLETE				
			JUN 2018 (4)	JUL 2018 (5)	AUG 2018 (6)	SEP 2018 (7)	OCT 2018 (8)	NOV 2018 (9)	(10)	(11)	(12)	(13)	(14)				
300 - Office of the President	6	781	6	6	6	6	6	0	0	0	0	0	0	0	0	0	805
303 - Internal Audit	5	510	5	5	5	5	5	0	0	0	0	0	0	0	0	0	531
304 - General Counsel	5	477	5	5	5	5	5	0	0	0	0	0	0	0	0	0	497
31 - Communications	8	1086	9	9	9	9	9	0	0	0	0	0	0	0	0	0	1121
32 - Safety Health Security & Quality	58	7556	59	59	59	60	60	0	0	0	0	0	0	0	0	0	7792
34 - Env Program & Strategic Plng	39	5122	43	44	44	42	42	0	0	0	0	0	1	1	0	0	5297
35 - Business Services	63	8173	68	68	68	68	68	0	0	0	0	0	0	0	0	0	8446
36 - Prime Contract & Proj Integr	64	5541	65	65	65	65	65	0	0	0	0	0	0	0	0	0	5801
38 - Project Technical Services	35	5839	40	40	40	39	39	0	0	0	0	0	0	0	0	0	5999
3B - PFP Closure Project	178	50596	207	214	191	203	201	198	198	591	361	8	0	0	0	0	52969
3C - Waste & Fuels Management Project	352	52407	360	360	343	341	17	9	4	16	23	2	0	0	0	0	53881
3D - Soil & Groundwater Remediation	280	38464	295	286	278	279	18	13	9	18	11	25	0	0	0	0	39696
3G - K Basin Oper & Plateau Remediation Project	216	33267	247	233	233	214	9	6	7	6	0	0	0	0	0	0	34222
3H - River Risk Management Project	225	5361	243	243	243	237	12	7	6	15	5	2	0	0	0	0	6375
3K - Central Plateau Risk Reduction	142	16935	136	133	119	112	40	9	4	6	0	0	0	0	0	0	17495
g. TOTAL DIRECT	1676	232116	1789	1770	1709	1685	298	243	228	652	402	39	0	0	0	0	240930

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

CLASSIFICATION (When Filled In)									
CONTRACT PERFORMANCE REPORT FORMAT 5 - EXPLANATIONS AND PROBLEM ANALYSES							FORM APPROVED OMB No. 0704-0188		
1. CONTRACTOR		2. CONTRACT			3. PROGRAM		4. REPORT PERIOD		
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract			a. NAME Plateau Remediation Contract		a. FROM (YYYY/MM/DD) 2018/04/23		
b. LOCATION (Address and ZIP Code) Richland, WA 99354		b. NUMBER DE-AC06-08RL14788		b. PHASE Base		b. TO (YYYY/MM/DD) 2018/05/27			
		c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE 2009/09/18 NO YES X					
	BCWS	BCWP	ACWP	SV in \$	SV in %	CV in \$	CV %	SPI	CPI
Current:	53,332	44,097	43,769	(9,235)	-17.3%	328	0.7%	0.83	1.01
Cumulative:	5,580,549	5,530,670	5,419,418	(49,879)	-0.9%	111,252	2.0%	0.99	1.02
	BAC	EAC	VAC in \$	VAC in %	TCPI				
At Complete:	5,926,190	5,877,902	48,288	0.8%	0.86				
Explanation of Variance/Description of Problem:									
<p>Current Period Schedule Variance: The current month (CM) negative schedule variance is primarily due to PBS RL-0041 324 Building Disposition Project, which experienced delays in performing cell sealing, core drilling, geo-probe pulling, and 324 Building structural modifications due to the high Alpha latent condition discovered at the 324 Building in prior months, as well as a subcontractor delay in completing the structural modifications design. In addition, other contributors to the overall current month schedule variance is due to the accelerated performance of AB Waste Site remediation work scope planned in October 2017 through November 2018 completed ahead of schedule in FY2016. The 183.2KE backfill started earlier than planned and was accelerated because of shorter turn-around times between pit 23 and Waste Site 183.2KE. Radioactive contamination was discovered below the designed depth of the excavation at Waste Site 116-KE-2, during decommissioning of the sample well that goes through the crib. As a result, the excavation volume and schedule duration have increased.</p> <p>Also contributing to the negative schedule variance is PBS RL-0013 associated with transuranic (TRU) repacking between three accounts. The first two are TRU Large Box Repack and PFP, both associated with work planned for this period but already completed in a prior period. The third account is the delay of two shipments of Mixed Low-Level Waste (MLLW) that were planned in the current period but delayed to June in order to allow more time to develop lifting plans. The two waste containers are shored in such a way that a lifting device is used to position the rigging without affecting the shored portions of the boxes.</p> <p>Current Period Cost Variance: The CM cost variance is within reporting thresholds.</p> <p>Cumulative Schedule Variance: The variance is within reporting thresholds.</p> <p>Cumulative Cost Variance: The variance is within reporting thresholds.</p>									
Impact:									
Current Period Schedule: The current month schedule variance is not expected to impact the overall contract schedule.									
Current Period Cost: CHPRC is actively formulating a PFP Recovery Plan to allow the resumption of PFP Demolition activities.									
Cumulative Schedule: N/A									
Cumulative Cost: N/A									
Corrective Action:									
Current Period Schedule: No corrective actions have been identified.									
Current Period Cost: Cost impacts are being estimated and will be incorporated in the project estimate to complete (ETC).									
Cumulative Schedule: N/A									
Cumulative Cost: N/A									
Monthly Summary (to include technical causes of VARs, Impacts, and Corrective Action(s):									
<p>The VAC decreased by \$29.8 million between April and May. The change was primarily due to an updated project completion forecast for project breakdown structure (PBS) RL-0011, which takes into account recovery actions and the updated path forward for demolition and project closeout.</p> <p>CHPRC continues to track completion of the contract scope within budget and is currently projecting a variance at completion (VAC) of \$48.3 million, with \$66.8 million of management reserve (MR), for a total positive variance of \$115.1 million. For May, the project was 17.3 percent behind schedule and 0.7 percent under planned cost. Contract to date (CTD), the project was 0.9 percent behind schedule and 2.0 percent under planned cost.</p>									

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

There were 10 of the 12 BCRs in the period that impacted the PMB:

BCR-012-18-006R0, Incorporate Scope Changes – RL-0012
 BCR-012-18-007R0, MR Draw for Sludge Transport System Cask Lid Fabrication
 BCR-013-18-019R0, Incorporate CO 322 IDF Revised Operational Requirements
 BCR-030-18-019R0, Incorporate Additional GW Monitoring Plans for DWMUs
 BCR-030-18-020R0, MR Draw for 100-NR-1 & 100-NR-2 TI Waiver
 BCR-030-18-021R0, MR Draw for UP-1 Drilling Standby
 BCR-041-18-017R0, Incorporate Additional scope for CO 306 100D/H Remedial Action Report
 BCR-041-18-019R0, Convert AB Head House Waste Site Remediation PP to MR
 BCR-041-18-020R0, Convert Planning Package for 100K Project Management to Management Reserve
 BCR-PRC-18-022R0, Undistributed Budget Adjustments May 2018

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

Variance in Performance BAC and EAC: The variance at complete (VAC) between the BAC and EAC this month is a + \$48.32 million, +0.8% and is within reporting thresholds.

Format 1 and 3 Contract Data:

Contract Price Adjustments

CPs - In Process		
	Total Authorized Unpriced Work	\$394,955
Approved Adjustments to Contract Price (not reflected in B.4-1 Table)		
	Total Negotiated Cost Changes	-
	Grand Total Adjustments	\$394,955

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

Undistributed Budget Activity

BCR Number	Title	PBS	Fiscal Year	UB
BCR-PRC-18-022R0	<i>Undistributed Budget Adjustments May 2018</i>	RL-0013, RL-0030, RL-0040, RL-0041	2018	\$60,393K

The Undistributed Budget increased by \$60,393K.

Management Reserve Activity

BCR Number	Title	PBS	Fiscal Year	MR
BCR-012-18-007R0	<i>MR Draw for Sludge Transport System Cask Lid Fabrication</i>	RL-0012	2018	\$-252K
BCR-030-18-020R0	<i>MR Draw for 100-NR-1 & 100-NR-2 TI Waiver</i>	RL-0030	2018	\$-108K
BCR-030-18-021R0	<i>MR Draw for UP-1 Drilling Standby</i>	RL-0030	2018	\$-261K
BCR-041-18-019R0	<i>Convert AB Head House Waste Site Remediation PP to MR</i>	RL-0041	2018	\$2,408K
BCR-041-18-020R0	<i>Convert Planning Package for 100K Project Management to Management Reserve</i>	RL-0041	2018	\$8,371K

Overall, there was an increase in MR of \$10,157K in May.

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

Fee Activity				
BCR Number	Title	PBS	Fiscal Year	Fee
N/A	N/A	N/A	2018	N/A
Overall, there was no change to the Fee during May.				
<p>Best/Worst/Most Likely Estimate: The Best EAC is the EAC reported this month, which assumes all efficiencies gained contract-to-date will remain at completion with no use of management reserve. The most likely EAC is the EAC reported this month plus the to-go (available) management reserve, which assumes all efficiencies gained contract-to-date will remain at completion but all available management reserve is used (e.g., all identified risks realized). The worst EAC is the ACWP plus the ECWR or BCWR if greater plus the to-go (available) management reserve, which assumes all efficiencies gained contract-to-date will be eroded at completion and all available management reserve is used (e.g., all identified risks realized), plus the scope identified in the Trend Log that is not in the EAC. The Best/Worst and Most Likely EAC values are documented in the Format 1 Report.</p>				
Prepared by: Project Control Staff		Date: 06/19/2018	Approved by:	Date:

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

Appendix B

Project Services and Support (WBS 000)



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

M. A. Wright
Vice President for
Project Technical
Services

May 2018
CHPRC-2018-05, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

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

S. E. Johnson
Director of
Communications

K. K. Dickerson (Acting)
Vice President for
Prime Contract and
Project Integration

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

This section is reported quarterly.

Appendix C

Capital Asset Projects

CH2MHILL
Plateau Remediation Company



May 2018
CHPRC-2018-05, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

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

CH2MHILL
Plateau Remediation Company



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

May 2018
CHPRC-2018-05, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

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

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

<i>Key Metrics</i>	<i>Current Month Plan</i>	<i>Current Month Actuals</i>	<i>Cumulative Plan</i>	<i>Cumulative Actuals</i>
Glovebox/Hood Removed	-	0	174	173
COMPLETE KPP Rooms/Areas Ready for Demo	-	0	72	72 rooms/areas

KEY ACCOMPLISHMENTS

RL-0011_C1 Accomplishments

- None

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

MAJOR ISSUES

On December 15, 2017, contamination was found outside of the established PFP radiological boundaries. On December 18, 2017, follow-up radiological surveys found additional contamination present in the administrative office area. CHPRC is continuing to identify resumption requirements based on a finalized RCA and working with RL and regulators to develop a resumption plan to enable demolition activities to resume. This will allow for the removal of the final glovebox remaining in 234-5Z.

CORRECTIVE ACTION LOG

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

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

-  Increased Confidence
-  No Change
-  Decreased Confidence

Risk Title Risk Owner	Unmitigated Risk Impacts	Assessment		Comments
		Month	Trend	
RL-0011/WBS-011.05.01.01.06 (CAP.1)				
Explanation of major changes to the project monthly spotlight chart:				
In May risk elicitation were conducted to align with the proposed path forward to resume demolition activities and complete CAP.1. Per the elicitation, the existing PFP CAP.1 risks were closed and removed from the spotlight.				
Realized Risks (Risks that are currently impacting project cost/schedule)				
No realized risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in <i>May</i> .				
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)				
No critical risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in <i>May</i> .				
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)				
No critical risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in <i>May</i> .				
Unassigned Risks (Pending ownership of identified risks/opportunities)				
No unassigned risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in <i>May</i> .				

CRITICAL PATH SCHEDULE

The PFP Critical Path schedule begins with the continuation of resumption activities related to the December contamination event. This will run in parallel with the loading of the super sack waste. Once the super sacks are loaded, debris disposition of the 234-5Z rubble piles will resume, starting with the frontside waste. Once the waste debris is loaded out, demolition will resume on the remaining sections of zones 2 and 7, with the exception of the drain line. Remote Mechanical C (RMC) process line and Remote Mechanical A (RMA) process line demolition will come next, in parallel will be completion of the basement of 234-5Z demolition and removal of HA-46. This leads to CD-4 declaration and confirmation of the completion worksheet. The CD-4 closeout completion milestone is scheduled for April 16, 2019.

SCHEDULE MARGIN/MANAGEMENT RESERVE

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

CRITICAL DECISION MILESTONE STATUS

Number	Title	* Due Date	**Forecast Date	Status/ Comment
CAP.1	Removal of 174 gloveboxes from 234-5Z	11/30/17	04/16/19	<p>Progress has been temporarily put on hold on work associated with CD-4 closure to remove the final glovebox from the 234-5Z Facility during demolition. On December 15, 2017, swing shift RadCon personnel performing routine surveys following the day shift demolition activities discovered low-level contamination on a cookie sheet. This led to a wider search, and a “speck” of contamination was smeared from a government vehicle. A CHPRC management stop work on demolition activities was declared and a critique was held to discuss the contamination spread, possible causes, and a path forward. An RCA has been conducted and resumption actions with expected completion dates have been identified. There was a 127-day loss since April as a result of corrective actions that were known at May month-end that have been incorporated into the resumption schedule to resume demolition activities.</p> <p>The total gloveboxes removed to date remains at 99 percent complete. Completion of CD-4 closure by November 30, 2017, was not achieved.</p>

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

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

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

Nothing to report at this time.

DOE ACTIONS / DECISIONS

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

Appendix C.1

RL-0011.C1 – PFP D&D

(Removal of 174 Gloveboxes from 234-5Z)

Contract Performance Reports

Format 1 - Work Breakdown Structure

Format 2 - Organizational Categories

Format 3 - Baseline

Format 4 - Staffing

Format 5 - Explanation and Problem Analysis

CH2MHILL
Plateau Remediation Company



May 2018
CHPRC-2018-05, Rev. 0
Contract DE-AC07-08RL14788
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

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

DOLLARS IN Thousands of \$

FORM APPROVED
OMB No. 0704-0188

1. CONTRACTOR		2. CONTRACT		3. PROGRAM			4. REPORT PERIOD		
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL_0011_C1 - PFP D&D (ARRA/Base)			a. FROM (YYYYMMDD) 2018 / 04 / 23		
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE			b. TO (YYYYMMDD) 2018 / 05 / 27		
		c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE NO <input type="checkbox"/> X <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18					

WBS.Resp Org Group ITEM (1)	CURRENT PERIOD						CUMULATIVE TO DATE						REPROGRAMMING			AT COMPLETION		
	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		ADJUSTMENTS			BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)		
	WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)	COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)					
35 - Business Services	0	0	0	0	0	60,427	60,427	52,580	0	7,847	0	0	0	60,427	52,580	7,847		
3B - PFP Closure Project	0	0	50	0	-50	254,725	254,706	280,039	-19	-25,334	0	0	0	254,725	280,053	-25,328		
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
d. UNDISTRIBUTED BUDGET														0	0	0		
e. SUBTOTAL (Performance Measurement Baseline)	0	0	50	0	-50	315,152	315,133	332,619	-19	-17,487	0	0	0	315,152	332,634	-17,482		
f. MANAGEMENT RESERVE														2,393				
g. TOTAL	0	0	50	0	-50	315,152	315,133	332,619	-19	-17,487	0	0	0	317,545				

CLASSIFICATION (When Filled In)

**CONTRACT PERFORMANCE REPORT
FORMAT 4 - STAFFING**

Dollars in: FTE

FORM APPROVED
OMB No. 0704-0188

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL_0011_C1 - PFP D&D (ARRA/Base)		a. FROM (YYYYMMDD) 2018 / 04 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 05 / 27	
		c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE <input type="checkbox"/> NO <input checked="" type="checkbox"/> X <input 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 JUN 2018 (4)	+2 JUL 2018 (5)	+3 AUG 2018 (6)	+4 SEP 2018 (7)	+5 OCT 2018 (8)	+6 NOV 2018 (9)	1st QTR FY19 (10)	2nd QTR FY19 (11)	3rd QTR FY19 (12)	FY19-LC (13)	ATCOMPLETE (14)		
35 - Business Services	0	17	0	0	0	0	0	0	0	0	0	0	0	0	17
3B - PFP Closure Project	3	15445	0	0	0	0	0	0	0	0	1	0	0	0	15446
g. TOTAL DIRECT	3	15461	0	0	0	0	0	0	0	0	1	0	0	0	15463

CLASSIFICATION (When Filled In)

CONTRACT PERFORMANCE REPORT

FORMAT 5 - Explanations and Problem Analysis

FORM APPROVED

OMB No. 0704-0188

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD			
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME MPB - RL_0011_C1 - PFP D&D (ARRA/Base)		a. FROM (YYYYMMDD) 2018/04/23			
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018/05/27			
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE No X Yes		(YYYYMMDD) 2009 / 09 / 18			

Direct Projects

5. Evaluation	Budget	Earned	Actuals	SV in \$	SV in %	CV in \$	CV in %	SPI	CPI
Current:	0	0	50	0		-50			0.00
Cumulative:	315,152	315,133	332,619	-19		-17,487	-5.5%	1.00	0.95
	BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:	315,152	332,634	-17,482	-5.5%		1.37			

Explanation of Variance/Description of Problem:

Current Period:
 Schedule Variance: The schedule variance is within threshold.
 Cost Variance: The current month cost variance is within threshold.

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

Impact:

Impact: The RL-011.C1 project baseline completion date is November 19, 2016. The current schedule now reflects a completion date of April 16, 2019. There was a 127 day loss since April as a result of corrective actions that were known at May month-end that have been incorporated into the current resumption schedule to resume demolition activities.

The current RL-11 performance schedule indicates that the PFP project will achieve slab-on-grade by April 11, 2019. On Friday, December 15, 2017 swing shift RadCon personnel performing routine surveys following the day shift demolition activities discovered low level contamination on a cookie sheet. This led to a wider search, and a "speck" of contamination was smeared from a government vehicle. A CHPRC management stop work on demolition activities was declared and a critique held to discuss the contamination spread, possible causes, and path forward. A root cause analysis has been conducted and recovery actions and expected completion dates have been identified. There was a 123 day loss since April month-end as a result of the contamination event described above. Efficiencies have previously been identified in readying the 234-5Z facility for demolition where NDA and characterization data supported leaving more piping and ducting in place for demolition. In addition, efficiencies were recognized in 236-Z (PRF) where work was performed on filter boxes in parallel with the gallery gloveboxes. This allowed for acceleration of the start of 236-Z demolition. This accelerated when additional field team resources were reallocated from 236-Z to 234-5Z to get the facility ready for demolition. This is partially offset by delay in readying the 234-5Z facility for demolition as a result of lack of RCT resources. 234-5Z contains the gloveboxes requiring removal to meet the end state of the KPP and TPA milestone. The regulators were notified in advance that the PFP Project would not meet the re-negotiated TPA milestone M-083-00A due date of 9/30/17 for achieving slab-on-grade. In addition, the December 30, 2017 CD-4 date was not achieved.

Cost Impact: The historical negative cost variance of ~\$17.4M and 5.5%, and CPI of .95 reflect impacts of the safety pauses, stop works, contamination events, and increased complexity of the HA-9A/HC-9B size reduction efforts and preparations and removal of the HA-7A, HC18M and HC-7C and 227S and 227T gloveboxes. This is partially offset by recognized efficiencies in cleaning up the RMA/RMC control rooms after completion of the size reduction efforts of the 9A/9B gloveboxes and removal of the three RADTU and HA-46 gloveboxes by demolishing them with the 234-5Z facility.

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

Corrective Action:

None at this time

No Corrective Actions Required

- Schedule Margin Analysis: There is no schedule margin associated with the RL-011.C1 capital asset account.
- IMS Data dictionary Changes: None in the month of May.
- Forecast Schedule with No Baseline: None in the month of May.
- UB Balance: None in the month of May.
- Negative ACWP: None in the month of May.
- EAC Analysis: Best Case = \$332,634; Most Likely = \$335,027; Worst Case = \$335,032
- Negative CV > VAC: Scope to perform size reduction efforts on the high gram glovebox removal efforts was estimated to be completed in a much shorter time frame with much fewer resources than originally planned causing the large Cost Variance. The EAC is reflective of the current approach to perform the remaining work scope.
- MR Transactions: None in the month of May.
- Freeze Period Changes: None in the month of May.
- Retroactive Changes: None in the month of May.
- EVT Changes: None in the month of May.

Prepared by: Cory McCoy

6/14/2018

Approved by:

Date:

Appendix C.2

Capital Asset Project

RL-0011.C2 - Demolition of PFP Facilities



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

May 2018
CHPRC-2018-05, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

On December 15, 2017, contamination was found outside of the established Plutonium Finishing Plant (PFP) radiological boundaries. On December 18, 2017, follow-up radiological surveys found additional contamination present in the administrative office area. Work was stopped after the second event, pending completion of a root cause analysis (RCA) and development of a resumption plan. CHPRC finalized the Root Cause Evaluation (RCE) in April and is working with RL and regulators to develop a plan to enable demolition activities to resume. Plutonium Reclamation Facility (PRF) debris, which had been loaded into super sacks prior to stopping work, is being loaded out and adjustments to the work control zone and radiological buffer area (RBA) inside the work control zone are nearly complete. Once all resumption pre-start items are complete, the project will begin demolition debris loadout.

<i>Key Metrics</i>	<i>Current Month Plan</i>	<i>Current Month Actuals</i>	<i>Cumulative Plan</i>	<i>Cumulative Actuals</i>
COMPLETE Cold and Dark/Demo Ready activities for 234-5Z	-	-	1	1
COMPLETE Cold and Dark/Demo Ready activities for 236-Z	-	-	1	1
COMPLETE Cold and Dark/Demo Ready activities for 242-Z	-	-	1	1
COMPLETE Cold and Dark/Demo Ready activities for 291-Z	-	-	1	1
Complete Cold and Dark/Demo Ready activities for PFP Ancillary Facilities	-	-	15	14
Complete Demolition of 234-5Z	-	-	1	-
Complete Demolition of 236-Z	-	-	1	-
COMPLETE Demolition of 242-Z	-	-	1	1
COMPLETE Demolition of 291-Z	-	-	1	1
Complete Demolition of PFP Ancillary Facilities	-	-	15	14
Turnover Facility to Long Term Surveillance & Maintenance	-	-	-	-

KEY ACCOMPLISHMENTS

RL-0011_C2 Accomplishments

- Accomplishments to achieve stabilization following the December 2017 contamination event include:
 - o Continued maintenance applications of fixative.
 - o Routine radiological surveys.
 - o Identified and began expanding the revised Radiological Buffer Area (RBA).
 - o Extra radiological surveys when sustained winds were 20 miles per hour or greater.
 - o Completed installation of new trailer village outside the PFP RBA boundary.
- Continued implementation of new demolition requirements associated with the December 2017 contamination event. Efforts include:
 - o Completed sewer isolations within affected trailer village to support new radiological boundary implementation.
 - o Received Expert Panel optioneering process comments and began incorporation to implement new controls for the resumption of demolition activities at PFP.
 - o Initiated PRF super sack loadout.

- o Initiated retrieval of personal items from trailers within the new RBA.
- o Continued shipments of previously packaged waste.

MAJOR ISSUES

Issue:

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

Corrective Action:

Work was stopped after the second event, pending completion of pre-start resumption activities. Material relocation, waste shipments, and loading of the PRF super sacks continues to support enhanced radiological postings and resumption of demolition activities.

Status:

CHPRC continues to identify resumption requirements based on a finalized RCA and working with RL and regulators to implement resumption plan to enable demolition activities to resume.

- Some of the activities that were performed during May were:
 - o Implementation of additional radiological monitoring (i.e., continuous air monitor (CAMs), cookie sheets).
 - o Completed installation of the new trailer villages to house PFP personnel.
 - o Mobilization of supplies and equipment to maintain the PFP footprint in a safe configuration.
 - o Application of fixatives (i.e., paints, stabilization agents) to items and areas in the PFP work control zone.
 - o Maintenance, repair, and rebuild of existing equipment and systems in a safe/compliant configuration.
 - o Continued activities to reconfigure boundaries, canister transfer areas, loadout areas, and waste storage areas to accommodate a larger work control zone.
 - o Reconfiguration of equipment in the PFP work control zone to support stabilization activities (water systems, foggers, etc.).
 - o Initiated loadout of PRF super sack waste.
 - o Initiated retrieval of personal items from trailers within the new RBA.

CORRECTIVE ACTION LOG

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

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

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

Risk Title	Unmitigated Risk Impacts	Assessment		Comments															
		Month	Trend																
RL-0011/WBS-011.OA																			
Explanation of major changes to the project monthly spotlight chart: Existing PFP DEMO risks were closed, and removed from the spotlight report in May. The spotlight was updated with the project's current risks.																			
Realized Risks (Risks that are currently impacting project cost/schedule)																			
PFP-P-004: Stop Work From Concerned Workers	Concerned workers results in a stop work to address an off-normal or safety issues. The work cannot be restarted until the implementation of corrective actions is completed, resulting in schedule impacts to the project. Risk Handling Strategy: Accept Risk Handling Strategy: Probability: Very Likely (>90%) Worst Case Impacts: \$0, 52 days	●	↔	Risk Event: During resumption of PRF super sack loadout, a stop work was called from concerned workers on spotters for forklift operations. <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="text-align: center;">Risk recovery action(s)</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>Update communications as positions change.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Provide new maps, with entry/exit instructions when boundaries are revised.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Encourage additional worker involvement.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Increase frequency of post-job reviews.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> Risk Action Assessment: A review was conducted to address worker concerns on qualified spotters. Management and the workforce discussed proper spotting qualifications and developed a path forward to ensure spotters were properly identified before returning to work. The stop work resulted in one lost day of progress for loading the super sack waste from PRF.	Risk recovery action(s)	FC Date	%	Update communications as positions change.	Ongoing	N/A	Provide new maps, with entry/exit instructions when boundaries are revised.	Ongoing	N/A	Encourage additional worker involvement.	Ongoing	N/A	Increase frequency of post-job reviews.	Ongoing	N/A
Risk recovery action(s)	FC Date	%																	
Update communications as positions change.	Ongoing	N/A																	
Provide new maps, with entry/exit instructions when boundaries are revised.	Ongoing	N/A																	
Encourage additional worker involvement.	Ongoing	N/A																	
Increase frequency of post-job reviews.	Ongoing	N/A																	
PFP-P-005: Unexpected Contamination Event within Established Boundaries	During operational activities (i.e. execution of characterization, monitoring, disposition of chemicals, and shipment) a loss of contamination control within the newly established boundary is experienced. Risk Handling Strategy: Control Probability: Low (10% to 25%) Worst Case Impacts: \$0, 64 days	●	↔	Risk Event: On May 19, 2018, low-level contamination was discovered during routine surveys. RCTs detected the contamination a few feet outside of the RBA south of 19 th Street and Camden Avenue, but within the work control boundary. Since being detected, the sample decayed to 279 disintegrations per minute (dpm)/100 cm ² . The area is now controlled as a contamination area (CA), and additional surveys are planned. No workers were contaminated. <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="text-align: center;">Risk recovery action(s)</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>Conduct air modeling.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Conduct large particle modeling.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Analyze data and use it to establish new boundaries for PFP demolition zone.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Establish and maintain new radiological boundaries</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> Risk Action Assessment: The area was posted as a CA pending further investigation. With the contamination being discovered within the work control boundary, no workers were contaminated in this event. Applicable surveys were performed and work was not impacted.	Risk recovery action(s)	FC Date	%	Conduct air modeling.	Ongoing	N/A	Conduct large particle modeling.	Ongoing	N/A	Analyze data and use it to establish new boundaries for PFP demolition zone.	Ongoing	N/A	Establish and maintain new radiological boundaries	Ongoing	N/A
Risk recovery action(s)	FC Date	%																	
Conduct air modeling.	Ongoing	N/A																	
Conduct large particle modeling.	Ongoing	N/A																	
Analyze data and use it to establish new boundaries for PFP demolition zone.	Ongoing	N/A																	
Establish and maintain new radiological boundaries	Ongoing	N/A																	
PFP-P1-001: Deterioration of Super Sack's within the PFP Demolition Zone	The 21 super sack packaged items (17 Strongbacks, two size-reduced glovebox bags, and two miscellaneous items) have deteriorated over the course of the past few months and need to be repacked or tarps installed prior to shipment to the Central Waste Complex (CWC). Risk Handling Strategy: Control Probability: Low (10% to 25%) Worst Case Impacts: \$0, 20 days	●	↔	Risk Event: During loadout of the super sacks, liquid was identified in four super sacks. The super sacks had degradation and through weather events and fixative application, liquid had accumulated in the sacks. <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="text-align: center;">Risk recovery action(s)</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>Initiate work package early in planning phase to install tarps.</td> <td>Complete</td> <td>100%</td> </tr> <tr> <td>Procure non long-lead tarps in the event tarps are required.</td> <td>Complete</td> <td>100%</td> </tr> <tr> <td>Procure pumps to remove liquid from super sacks</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> Risk Action Assessment: Hand pumps have been ordered and the work package will be revised to allow for pumping of liquid. This will allow for super sacks to be loaded into compliant shipping packages and will result in minimal impact to super sack loadout schedule.	Risk recovery action(s)	FC Date	%	Initiate work package early in planning phase to install tarps.	Complete	100%	Procure non long-lead tarps in the event tarps are required.	Complete	100%	Procure pumps to remove liquid from super sacks	Ongoing	N/A			
Risk recovery action(s)	FC Date	%																	
Initiate work package early in planning phase to install tarps.	Complete	100%																	
Procure non long-lead tarps in the event tarps are required.	Complete	100%																	
Procure pumps to remove liquid from super sacks	Ongoing	N/A																	

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

FY2018 Risk Triggers (Risk could be realized in FY2018)

PFP-P1-003: Weather Impacts During Stabilization, Waste Disposition, & Support	Inclement weather, including moderate winds, low or high temperatures, and thunderstorms will result in in-scope unplanned work and result in schedule impacts to the project. Risk Handling Strategy: Control Probability: Low (10% to 25%) Worst Case Impacts: \$0, 24 days			Risk Trigger: When sustained wind speeds are greater than 20 mph or gusts are above 30 mph, work will be stopped pending radiological surveys to confirm no contamination has spread beyond established boundaries. <table border="1" data-bbox="860 367 1559 409"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Plan for 80% T.O.E.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> Mitigation Assessment: Wind has continued to impact progress on resumption activities at the expected rate. Surveys are being conducted more efficiently and are resulting in less time to recover from wind events, allowing work to resume sooner following an event.	Mitigation action(s)	FC Date	%	Plan for 80% T.O.E.	Ongoing	N/A
Mitigation action(s)	FC Date	%								
Plan for 80% T.O.E.	Ongoing	N/A								

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

No high threat risks identified in *May*.

Unassigned Risks (Pending ownership of identified risks/opportunities)

No unassigned risks identified in *May*.

CRITICAL PATH SCHEDULE

The PFP Critical Path schedule begins with the continuation of resumption activities related to the December contamination event. This will run in parallel with the loading of the super sack waste. Once the super sacks are loaded, debris disposition of the 234-5Z rubble piles will resume, starting with the frontside waste. Once the waste debris is loaded out, demolition will resume on the remaining sections of zones 2 and 7, with the exception of the drain line. Remote Mechanical C (RMC) process line and Remote Mechanical A (RMA) process line demolition will come next, in parallel will be completion of the basement of 234-5Z demolition. The 234-5Z demolition completes February 11, 2019. The 236-Z canyon demolition will then resume with completion scheduled for April 11, 2019, meeting the requirements for the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Milestone M-083-00A – PFP Facility Transition and Selection Disposition Activities. Completion of demolition is followed by site stabilization and demobilization, turnover to surveillance and maintenance, and project closeout activities completing July 25, 2019. The CAP2 CD-4 closeout is scheduled for June 25, 2019.

SCHEDULE MARGIN/MANAGEMENT RESERVE

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

CRITICAL DECISION MILESTONE STATUS

Number	Title	* Due Date	**Forecast Date	Status/ Comment
RL-011.C2	Completion of Demolition of all PFP Facilities.	8/31/18	06/25/19	Progress has been temporarily put on hold on PFP demolition activities. There was a 124-day loss of schedule for May. This was a result of incorporation of the revised demo approach from the contamination event that occurred on December 15, 2017. During swing shift, RadCon personnel performing routine surveys following the day-shift demolition activities discovered low-level contamination on a cookie sheet. This led to a wider search, and a "speck" of contamination was smeared from a government vehicle. A CHPRC management stop work on demolition activities was declared and a critique held to discuss the contamination spread, possible causes, and a path forward. An RCA has been conducted and resumption actions with expected completion dates have been identified.

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

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

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None to report at this time.

DOE ACTIONS / DECISIONS

Working with RL on CD-4 closure actions.

Appendix C.2

RL-0011.C2 - Demolition of PFP Facilities

Contract Performance Reports

Format 1 - Work Breakdown Structure

Format 2 - Organizational Categories

Format 3 - Baseline

Format 4 - Staffing

Format 5 - Explanation and Problem Analysis

CH2MHILL
Plateau Remediation Company



May 2018
CHPRC-2018-05, Rev. 0
Contract DE-AC07-08RL14788
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

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

DOLLARS IN Thousands of \$

FORM APPROVED
OMB No. 0704-0188

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD													
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL_0011_C2 PFP Demolition Capital Asset Project		a. FROM (YYYYMMDD) 2018 / 04 / 23													
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 05 / 27													
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE															
				NO <input type="checkbox"/> X YES (YYYYMMDD) 2009 / 09 / 18															
5. CONTRACT DATA																			
a. QUANTITY 1	b. NEGOTIATED COST 51,683	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 0	d. TARGET PROFIT/FEE 5,000	e. TARGET PRICE 56,683	f. ESTIMATED PRICE 149,612	g. CONTRACT CEILING 56,683	h. ESTIMATED CONTRACT CEILING 149,612												
6. ESTIMATED COST AT COMPLETION				7. AUTHORIZED CONTRACTOR REPRESENTATIVE															
		MANAGEMENT ESTIMATE AT COMPLETION (1)	CONTRACT BUDGET BASE (2)	VARIANCE (3)	a. NAME (Last, First, Middle Initial) Dickerson, Kala K		b. TITLE Prime Contract Compliance Manager												
a. BEST CASE		141,178			c. SIGNATURE		d. DATE SIGNED (YYYYMMDD)												
b. WORST CASE		144,612																	
c. MOST LIKELY		144,612	51,683	-92,929															
8. PERFORMANCE DATA																			
CAPN.PBS Control Account.PARS 2 WBS (2)		CURRENT PERIOD				CUMULATIVE TO DATE				REPROGRAMMING ADJUSTMENTS			AT COMPLETION						
ITEM (1)		BUDGETED COST		ACTUAL		BUDGETED COST		ACTUAL		BUDGETED COST		ACTUAL		BUDGETED	ESTIMATED	VARIANCE			
		WORK SCHEDULED (2)	WORK PERFORMED (3)	COST WORK PERFORMED (4)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	COST WORK PERFORMED (9)	SCHEDULE (10)	COST (11)	COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	(14)	(15)	(16)		
RL-0011 Nuclear Mat Stab & Disp PFP																			
RL_0011_C2.05 Disposition PFP Facility		0	26	5,178	26	-5,152	55,307	41,820	73,621	-13,487	-31,801	0	0	0	55,307	141,178	-85,871		
b. COST OF MONEY		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
c. GENERAL AND ADMINISTRATIVE		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
d. UNDISTRIBUTED BUDGET															0	0	0		
e. SUBTOTAL		0	26	5,178	26	-5,152	55,307	41,820	73,621	-13,487	-31,801	0	0	0	55,307	141,178	-85,871		
f. MANAGEMENT RESERVE															3,434				
g. TOTAL		0	26	5,178	26	-5,152	55,307	41,820	73,621	-13,487	-31,801	0	0	0	58,741				
9. RECONCILIATION TO CONTRACT BUDGET BASELINE																			
a. VARIANCE ADJUSTMENT																			
b. TOTAL CONTRACT VARIANCE										-13,487		-31,801		58,741		141,178		-82,436	

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

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

FORM APPROVED

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL_0011_C2 PFP Demolition Capital Asset Project		a. FROM (YYYYMMDD) 2018 / 04 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 05 / 27	
		c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18	

WBS.Resp Org Group	CURRENT PERIOD						CUMULATIVE TO DATE					REPROGRAMMING			AT COMPLETION		
	BUDGETED COST		ACTUAL	VARIANCE		BUDGETED COST		ACTUAL	VARIANCE		ADJUSTMENTS			BUDGETED	ESTIMATED	VARIANCE	
	WORK SCHEDULED (2)	WORK PERFORMED (3)	COST WORK PERFORMED (4)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	COST WORK PERFORMED (9)	SCHEDULE (10)	COST (11)	COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	(14)	(15)	(16)	
3B - PFP Closure Project	0	26	5,178	26	-5,152	55,307	41,820	73,621	-13,487	-31,801	0	0	0	55,307	141,178	-85,871	
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
d. UNDISTRIBUTED BUDGET														0	0	0	
e. SUBTOTAL (Performance Measurement Baseline)	0	26	5,178	26	-5,152	55,307	41,820	73,621	-13,487	-31,801	0	0	0	55,307	141,178	-85,871	
f. MANAGEMENT RESERVE														3,434			
g. TOTAL	0	26	5,178	26	-5,152	55,307	41,820	73,621	-13,487	-31,801	0	0	0	58,741			

CLASSIFICATION (When Filled In)

**CONTRACT PERFORMANCE REPORT
FORMAT 4 - STAFFING**

Dollars in: FTE

FORM APPROVED
OMB No. 0704-0188

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL_0011_C2 PFP Demolition Capital Asset Project		a. FROM (YYYYMMDD) 2018 / 04 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 05 / 27	
		c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18			

WBS.Resp Org Group		ACTUAL CURRENT PERIOD	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	FORECAST (Non-Cumulative)						ENTER SPECIFIED PERIODS					AT COMPLETION (15)
ORGANIZATIONAL CATEGORY (1)				SIX MONTH FORECAST BY MONTH (Enter names of months)											
		(2)		+1 JUN 2018 (4)	+2 JUL 2018 (5)	+3 AUG 2018 (6)	+4 SEP 2018 (7)	+5 OCT 2018 (8)	+6 NOV 2018 (9)	1st QTR FY19 (10)	2nd QTR FY19 (11)	3rd QTR FY19 (12)	FY19-LC (13)	ATCOMPLETE (14)	
3B - PFP Closure Project		137	1668	158	163	141	152	151	147	147	445	274	0	0	3447
g. TOTAL DIRECT		137	1668	158	163	141	152	151	147	147	445	274	0	0	3447

CLASSIFICATION (When Filled In)										
CONTRACT PERFORMANCE REPORT FORMAT 5 - Explanations and Problem Analysis									FORM APPROVED OMB No. 0704-0188	
1. CONTRACTOR	2. CONTRACT			3. PROGRAM			4. REPORT PERIOD			
a. NAME CH2M HILL Plateau Remediation Company	a. NAME Plateau Remediation Contract			a. NAME RL_0011_C2 PFP Demolition Capital Asset Project			a. FROM (YYYYMMDD) 2018/04/23			
b. LOCATION (Address and ZIP Code) Richland, WA	b. NUMBER RL14788			b. PHASE			b. TO (YYYYMMDD) 2018/05/27			
	c. TYPE CPAF	d. SHARE RATIO		c. EVMS ACCEPTANCE No X Yes (YYYYMMDD) 2009 / 09 / 18						
Direct Projects										
5. Evaluation		Budget	Earned	Actuals	SV in \$	SV in %	CV in \$	CV in %	SPI	CPI
Current:		0.0	26.4	5,178.3	26.4	-	-5,151.8	-19487.6%	-	0.01
Cumulative:		55,306.9	41,819.8	73,620.8	-13,487.0	-24.4%	-31,801.0	-76.0%	0.76	0.57
		BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:		55,306.9	141,177.8	-85,871.0	-155.3%	-	0.20			
Explanation of Variance/Description of Problem:										
Current Month:										
Schedule Variance: The schedule variance for the current month is within threshold.										
Cost Variance: The current month unfavorable variance are associated with impacts and resumption efforts from the contamination event that occurred on December 15, 2017. A root cause analysis has been finalized and corrective actions are being implemented prior to resumption of demolition activities.										
Cumulative to Date:										
Schedule Variance: The cumulative unfavorable schedule variance is due to delay of demolition of ancillary buildings and 236-Z caused by resources being redirected to support higher priority critical path work associated with decommissioning of 234-5Z, 242-Z, and 236-Z, as well as ready for demo activities associated with impacts from 236-Z Canyon Crane failure, contamination impacts from an unplanned criticality alarm failure, contamination recovery in the duct level of 234-5Z (two week delay in July 2016), increased characterization efforts, weather delays (snow and wind), recovery from demolition contamination events, and greater efforts to complete 242-Z demolition than originally planned. In addition, the PUREX Tunnel collapse caused a four day delay due to closure of the Hanford site restricting access to PFP and a contamination event associated with removal of PRF gallery gloveboxes causing a 20 day delay of demolition activities on the 236-Z facility. Further, impacts associated with the Stop Work that was initiated by the Hanford Atomic Metals Trade Council (HAMTC) union leadership on November 11, 2017 "associated with concerns over events both inside and outside of the facility." The main issue involved employee proximity to radiological boundary areas during demolition. Radiological boundaries were reconfigured and impacted employees were relocated. As a result of delays in the ready for demolition activities, completion of the C2 CD-4 has been delayed. TPA milestone M-083-00A due 9/30/2017 was not met. A BCR was processed in the month of September to draw down on DOE contingency to recover the direct cost impacts to the RL-0011 C.2 Project associated with realization of the DOE-RL risks. Areas that were impacted were associated with Weather Delays, Stop Works, PRF Contamination Events, and MSA Resources retained to prevent Bump and Roll impacts. A contamination event occurred on Friday, December 15, 2017 swing shift when RadCon personnel performing routine surveys following the day shift demolition activities discovered low level contamination on a cookie sheet. This led to a wider search and a "speck" of contamination was smeared from a government vehicle. A CHPRC management stop work on demolition activities was declared and a critique held to discuss the contamination spread, possible causes, and path forward. A root cause analysis has been conducted and recovery actions and expected completion dates are identified. This is partially offset with the removal of the 18 sections of the PRF gallery gloveboxes, progress on demolition of 236-Z, demolition of the 2727-Z and 2729-Z facilities, the 242-ZA and 242-Z facilities, the 291-Z facility, 291-Z stack, 234-5ZA, 252-Z1, 2503-Z, 2735Z, 2734ZA, ZB, ZC, ZD, and ZL facilities.										
Cost Variance: The cumulative negative cost variance is associated with MSA resources arriving to support PFP demolition that were planned as P/Q shift support with a baseline start date of February 2016. Additionally, Readiness Assessment activities lagged due to a delay in the start of 236-Z Demolition and increased requirements to show readiness resulting in increased costs due to additional time and effort required from subcontracted and direct labor resources. The apportioned project management activities (i.e. project oversight and planning) and support activities are ongoing, while a delay in the discrete field work is resulting in minimal apportioned BCWP. Demolition mobilization activities took longer than originally assumed because of recommendations made during the readiness assessment and purchasing unplanned PBS fixative to support 236-Z demolition. In addition, significant winter weather impacts (i.e., snow, wind, freezing rain, etc.) have been recognized on the Hanford Site. Site closures, freezing temperatures and significant snowfall that required clearing of the demolition zone rather than performing physical demolition on the facilities while a constant staff provides demolition support services is a contributing factor. Unplanned Management Assessment efforts for the 234-5Z and 291-Z facilities took longer than originally assumed. Impacts associated with the Stop Work that was initiated by the Hanford Atomic Metals Trade Council (HAMTC) union leadership on November 11, 2017 "associated with concerns over events both inside and outside of the facility." The main issue involved employee proximity to radiological boundary areas during demolition. Radiological boundaries were reconfigured and impacted employees were relocated. As the project gets further into the demolition phase of the PRF Canyon, increased utilization of Personnel Protective Equipment to align with the original plan as well as increased material procurements to align with the scope being performed (i.e., P-100 filters, Labounty Shear, additional fixative, etc.) are also contributing to this variance. An adjustment to the G&A Rate for FY2017 resulted in a reduction to the PMB of \$463K. Finally, impacts from a contamination event that occurred on Friday, December 15, 2017 swing shift where RadCon personnel performing routine surveys following the day shift demolition activities discovered low level contamination on a cookie sheet. This led to a wider search, and a "speck" of contamination was smeared from a government vehicle. A CHPRC management stop work on demolition activities was declared and a critique held to discuss the contamination spread, possible causes, and path forward. A root cause analysis has been conducted and resumption actions and expected completion dates are identified. This is partially offset by recognized efficiencies associated with the removal of the 18 sections of the PRF gallery gloveboxes, progress on demolition of 236-Z, demolition of the 2727-Z and 2729-Z facilities, the 242-ZA and 242-Z facilities, the 291-Z facility, 291-Z stack, 234-5ZA, 252-Z1, 2503-Z, 2735Z, 2734ZA, ZB, ZC, ZD, and ZL facilities.										

Impact:

Schedule Impact: Progress continued to work toward CD-4 closure as teams continued to ready the PFP facilities for demolition. The PRF facility initiated demolition on November 8, 2016, and completion of demolition activities will occur in December, 2018. Demolition on the 291-Z facility commenced on June 30, 2017, and the 291-Z stack was demolished on July 15, 2017. The 234-5ZA facility was demolished in the month of August 2017 with loadout of waste completed in the month of September. Demolition of 234-5Z was initiated on September 13, 2017, and is now 53 percent complete. Completion of all demolition activities are scheduled to occur in May 2019. The May date is reflective of the known actions and resumption efforts associated with a contamination event that occurred in December, 2017. There was a 124 day slip to the schedule. This was a result of incorporation of the revised demo approach from the contamination event that occurred on Friday, December 15, 2017 as identified above. The baseline completion date is not considered recoverable. The TPA Milestone TPA-083-00A, complete PFP facility transition and selected disposition activities of November 30, 2017 was not met.

Cost Impact: Stop Works, Safety Pauses, weather impacts (i.e., unusual winter, heat, wind, etc.) multiple contamination events, the PRF Crane failure, and associated recovery actions have negatively impacted demolition of the PFP facilities. In addition, readiness activities took longer than originally assumed as a result of increased requirements required by the Readiness Assessment team to demonstrate readiness for demolition of the PRF facility and efforts to mobilize took longer than originally assumed as a result of implemented recommendations from the readiness assessment team. An unplanned Management Assessment for the 234-5Z and 291-Z facilities to incorporate lessons learned from the demolition of the 236-Z and 242-Z facilities are also contributing to the cost impacts. Finally, in the early stages of this project subcontracted MSA resources specializing in facility demolition charged the project until the ready for demo status was achieved. Unexpected contamination events that occurred during demolition of the PRF facility in January, June, and December, 2017, and delays with the 242-Z demolition has contributed to the cost impacts on this project. A Baseline Change Request (BCR) was processed in the month of September to draw down on DOE contingency to recover the direct cost impacts to the RL-0011 C.2 Project associated with realization of the DOE-RL risks. Areas that were impacted were associated with Weather Delays, Stop Works, PRF Contamination Events, and MSA Resources retained to prevent Bump and Roll impacts. This is partially offset by recognized efficiencies during the 291-Z demolition and 291-Z stack implosion as well as the 234-5ZA, 252-Z1, 2503-Z, and 2735Z, 2734ZA, ZB, ZC, ZD, and ZL facilities.

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

Corrective Action:

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

Corrective actions associated with recovery actions from the contamination event that occurred on December 15, 2017 as described above are continuing to be developed and will be documented in future reporting periods.

CHPRC continues to identify resumption requirements based on a finalized RCA and working with RL and regulators to implement resumption plan to enable demolition activities to resume.

Some of the activities that were performed during May were:

- o Implementation of additional radiological monitoring (i.e., continuous air monitor (CAMs), cookie sheets).
- o Completed installation of the new trailer villages to house PFP personnel.
- o Mobilization of supplies and equipment to maintain the PFP footprint in a safe configuration.
- o Application of fixatives (i.e., paints, stabilization agents) to items and areas in the PFP work control zone.
- o Maintenance, repair, and rebuild of existing equipment and systems in a safe/compliant configuration.
- o Continued activities to reconfigure boundaries, canister transfer areas, loadout areas, and waste storage areas to accommodate a larger work control zone.
- o Reconfiguration of equipment in the PFP work control zone to support stabilization activities (water systems, foggers, etc.).
- o Initiated loadout of PRF super sack waste.
- o Initiated retrieval of personal items from trailers within the new RBA.

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

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

1. Schedule Margin Analysis: In the EAC there is currently no remaining schedule margin in this capital asset account. Schedule margin was lost in February 2016 as a result of impacts from stop works associated with PremAire breathing air issues related to size reduction of the HA-9A glovebox and impacts from a safety pause associated with a PremAire Breathing Air radiological event resulting in increased survey requirements for PPE and a requirement for removing additional asbestos in the 234-5Z facility prior to demolition activities commencing.
2. IMS Data dictionary Changes: No change in the month of May
3. Forecast Schedule with No Baseline: No change in the month of May
4. UB Balance: No change in the month of May
5. Negative ACWP: No change in the month of May
6. EAC Analysis: Best Case = \$141,178; Most Likely = \$144,612; Worst Case = \$144,612
7. Negative CV > VAC: No change in the month of May
8. MR Transactions: No change in the month of May
9. Freeze Period Changes: No change in the month of May
10. Retroactive Changes: No change in the month of May
11. EVT Changes: No change in the month of May

Prepared by: Cory McCoy

Date: 06/14/18

Approved by:

Date:

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

CH2MHILL
Plateau Remediation Company

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

May 2018
CHPRC-2018-05, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1



PROJECT SUMMARY

The DOE Operational Readiness Review (ORR) was completed on April 17, 2018. After successful closeout of pre-start findings and corrective actions, request for DOE approval of critical decision (CD)-4 for the C.1-1, Sludge Retrieval Project Line Item 15-D-401 was submitted to DOE, on May 10, 2018. CD-4 Approve Start of Operations, was approved on May 22, 2018. The project is forecast to begin sludge removal in mid-June.

Project breakdown structure (PBS) RL-0012 scope is 97.7 percent complete, with a cumulative schedule performance index (SPI) of 1.00 and a Cost Performance Index (CPI) of 1.04.

KEY ACCOMPLISHMENTS

RL-0012 C1 1 Accomplishments

KW Basin Sludge Removal Capital Asset Project

- The 100K Operations support team performed preventive maintenance and calibrations on both Engineered Container Retrieval and Transfer System (ECRTS) components and Annex Utility System components.
- Request for approval of CD-4, Approve Start of Operations, was submitted to RL on May 10, 2018. DOE-HQ approved CD-4 on May 18, 2018.
- DOE-RL transmitted approval of CD-4, Approval Start of Operations, to CHPRC on May 22, 2018.
- Receipt and preparation of Sludge Transport & Storage Container (STSC) 1 started in May.

MAJOR ISSUES

Issue:

CHPRC is planning to complete the first shipment of sludge from 105KW Basin to T Plant on June 28, 2018, which would achieve performance measure PM-12-2-18 (June 30, 2018). Given the minimal remaining float, CHPRC management is monitoring both the cost and schedule associated with this work.

Corrective Action:

CHPRC completed the contractor ORR in March. The DOE ORR was completed in April. CHPRC submitted the request for authorization to startup letter and DOE approved the Request for Startup on May 22, 2018.

Status:

The PM continues to be in jeopardy of being achieved by June 30, 2018.

CORRECTIVE ACTION LOG

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

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

-  Increased Confidence
-  No Change
-  Decreased Confidence

Risk Title	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
RL-0012/WBS-012 (CAP)													
Explanation of major changes to the project monthly spotlight chart: No major changes to the spotlight chart in May. However, risk STP-154, <i>ORR Results in Delays to the Project</i> , was closed per authorization for startup from DOE, and will be removed from the spotlight report next month.													
Realized Risks (Risks that are currently impacting project cost/schedule)													
STP-154: ORR Results in Delays to the Project	Impacts stemming from the contractor ORR, the DOE ORR, or a combination of the two impacts the project's operational activities and jeopardizes the project's ability to achieve PM-12-2-18, due June 30, 2018. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$216K, 24 days			Risk Event: Execution of the contractor ORR and execution of the DOE ORR. <table border="1"> <thead> <tr> <th>Risk recovery action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Complete necessary preventative maintenance and calibration activities prior to re-initiation of the contractor ORR and prior to initiating the DOE ORR.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Continue performing operation demonstrations in presence of senior supervisor watches, with the intent on identifying and resolving emergent challenges.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> Risk Action Assessment: The contractor ORR was completed on March 6, 2018. The DOE ORR was completed on April 17, 2018. The project addressed the DOE ORR pre-start findings and submitted the request for authorization to startup letter to RL on May 10, 2018 (CHPRC- 1801857 R1). Formal authorization from DOE was received on May 22, 2018, through the "Office of Environmental Management Approval for Startup of the Engineered Container Transfer System" email (Correspondence No. 1802002). This risk was closed in May, as it no longer presents a threat to the project (per the "Office of Environmental Management Approval for Startup of the Engineered Container Transfer System" email (Correspondence No. 1802002)). It will be removed from the spotlight prior to next month's report being finalized.	Risk recovery action(s)	FC Date	%	Complete necessary preventative maintenance and calibration activities prior to re-initiation of the contractor ORR and prior to initiating the DOE ORR.	Complete	100	Continue performing operation demonstrations in presence of senior supervisor watches, with the intent on identifying and resolving emergent challenges.	Complete	100
Risk recovery action(s)	FC Date	%											
Complete necessary preventative maintenance and calibration activities prior to re-initiation of the contractor ORR and prior to initiating the DOE ORR.	Complete	100											
Continue performing operation demonstrations in presence of senior supervisor watches, with the intent on identifying and resolving emergent challenges.	Complete	100											
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)													
No critical risks identified in <i>May</i> .													
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)													
FY2017 Risk Triggers (Risk could be realized in FY2017)													
No high risk threat value risks identified in <i>May</i> .													
Unassigned Risks (Pending ownership of identified threats/opportunities)													
No unassigned risks identified in <i>May</i> .													

CRITICAL PATH SCHEDULE

The project critical path schedule runs through receipt and preparation of STSC 1. The project schedule reflects the completion of retrieval operations, including the filling of STSCs with sludge and transporting them to T Plant, to complete Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Milestone M-016-176, Complete Sludge Removal from 105KW Fuels Storage Basin, is required by December 2019.

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	11/30/19	5/22/18 (A)	The forecast date includes a schedule margin from the project's risk analysis.

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

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

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL Issue Findings / Discrepancy List	04/18/18 (A)	05/01/18 (A)
HQ Approve CD-4 Submittal Package	05/14/18 (A)	05/22/18 (A)
RL Approve Request for Startup Letter	05/10/18 (A)	05/22/18 (A)

Appendix C.3

RL-0012_C1_1 – Sludge Retrieval Project 15-D-401

Contract Performance Reports

Format 1 - Work Breakdown Structure

Format 2 - Organizational Categories

Format 3 - Baseline

Format 4 - Staffing

Format 5 - Explanation and Problem Analysis

CH2MHILL
Plateau Remediation Company



May 2018
CHPRC-2018-05, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

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

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

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME 15_D_401 KW Basin Sludge Removal Project		a. FROM (YYYYMMDD)	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		2018 / 04 / 23	
		c. TYPE CPAF		d. SHARE RATIO		b. TO (YYYYMMDD)	
				c. EVMS ACCEPTANCE NO X YES (YYYYMMDD) 2009 / 09 / 18		2018 / 05 / 27	

5. CONTRACT DATA								
a. QUANTITY 1	b. NEGOTIATED COST 295,873	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 0	d. TARGET PROFIT/FEE 7,950	e. TARGET PRICE 303,823	f. ESTIMATED PRICE 297,132	g. CONTRACT CEILING 303,823	h. ESTIMATED CONTRACT CEILING 297,132	i. DATE OF OTB/OTS (YYYYMMDD)

6. ESTIMATED COST AT COMPLETION				7. AUTHORIZED CONTRACTOR REPRESENTATIVE			
		MANAGEMENT ESTIMATE AT COMPLETION (1)	CONTRACT BUDGET BASE (2)	VARIANCE (3)		a. NAME (Last, First, Middle Initial) Dickerson, Kala K	b. TITLE Prime Contract Compliance Manager
a. BEST CASE		283,761				c. SIGNATURE	
b. WORST CASE		289,182				d. DATE SIGNED (YYYYMMDD)	
c. MOST LIKELY		289,182	295,873	6,691			

8. PERFORMANCE DATA																	
CAPN.PBS Control Account.PARS 2 WBS (2)		CURRENT PERIOD					CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
ITEM (1)	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)	
	WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)							
RL-0012 SNF Stabilization & Disp																	
RL_0012_C1_1.16 Sludge Treatment Project	0	0	0	0	0	156,861	156,861	156,786	0	75	0	0	0	156,861	156,786	75	
RL_0012_C1_1.17 D-401 KW Basin Sludge Removal Project	3	95	1,272	92	-1,177	133,421	133,421	126,671	0	6,750	0	0	0	133,421	126,975	6,446	
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
d. UNDISTRIBUTED BUDGET														0	0	0	
e. SUBTOTAL	3	95	1,272	92	-1,177	290,282	290,282	283,456	0	6,825	0	0	0	290,282	283,761	6,521	
f. MANAGEMENT RESERVE														5,421			
g. TOTAL	3	95	1,272	92	-1,177	290,282	290,282	283,456	0	6,825	0	0	0	295,703			
9. RECONCILIATION TO CONTRACT BUDGET BASELINE																	
a. VARIANCE ADJUSTMENT																	
b. TOTAL CONTRACT VARIANCE																	
										0	6,825		295,703	283,761	11,942		

CLASSIFICATION (When Filled In)

CLASSIFICATION (When Filled In)

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

DOLLARS IN Thousands of \$

FORM APPROVED
OMB No. 0704-0188

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME 15_D_401 KW Basin Sludge Removal Project		a. FROM (YYYYMMDD) 2018 / 04 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 05 / 27	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18			

WBS.Resp Org Group	CURRENT PERIOD						CUMULATIVE TO DATE						REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL COST WORK PERFORMED	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)		
	WORK SCHEDULED (2)	WORK PERFORMED (3)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	SCHEDULE (10)	COST (11)										
3G - K Basin Oper & Plateau Remediation Project	3	95	1,272	92	-1,177	290,282	290,282	283,456	0	6,825	0	0	0	290,282	283,761	6,521		
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
d. UNDISTRIBUTED BUDGET																		
e. SUBTOTAL (Performance Measurement Baseline)	3	95	1,272	92	-1,177	290,282	290,282	283,456	0	6,825	0	0	0	290,282	283,761	6,521		
f. MANAGEMENT RESERVE														5,421				
g. TOTAL	3	95	1,272	92	-1,177	290,282	290,282	283,456	0	6,825	0	0	0	295,703				

CLASSIFICATION (When Filled In)

CONTRACT PERFORMANCE REPORT

FORMAT 4 - STAFFING

Dollars in: FTE

FORM APPROVED

OMB No. 0704-0188

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME 15_D_401 KW Basin Sludge Removal Project		a. FROM (YYYYMMDD) 2018 / 04 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 05 / 27	
		c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> X YES (YYYYMMDD) 2009 / 09 / 18	

5. PERFORMANCE DATA															
WBS.Resp Org Group ORGANIZATIONAL CATEGORY (1)	ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	FORECAST (Non-Cumulative)												AT COMPLETION (15)
			SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS						
			+1 JUN 2018 (4)	+2 JUL 2018 (5)	+3 AUG 2018 (6)	+4 SEP 2018 (7)	+5 OCT 2018 (8)	+6 NOV 2018 (9)	1st QTR FY19 (10)	2nd QTR FY19 (11)	3rd QTR FY19 (12)	FY19-LC (13)	ATCOMPLETE (14)		
3G - K Basin Oper & Plateau Remediation Project	54	7630	16	1	0	0	0	0	0	0	0	0	0	0	7647
g. TOTAL DIRECT	54	7630	16	1	0	0	0	0	0	0	0	0	0	0	7647

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

CH2MHILL
Plateau Remediation Company



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

May 2018
CHPRC-2018-05, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

Workers at the 618-10 Burial Ground Complex continued site recontouring and demobilization activities in May.

KEY ACCOMPLISHMENTS

618-10 Burial Ground Closeout Verification Package

- Continued comment resolution on closeout verification package (CVP) and Waste Site Reclassification Form.

618-10 Burial Ground Complex Demobilization

- Crews continued site recontouring and applying earthbound fixatives to all disturbed soils.
- Completed recontouring of the 618-10 Burial Ground seven acre footprint; the remaining site complex is not complete.
- Remaining trailers were shipped off of the project.
- Removed all power poles from the 618-10 Burial Ground complex footprint.
- Decommissioned the septic system and removed the fiber optic cable.
- All remaining parking bumpers and ecology blocks were shipped offsite to other CHPRC projects.
- A dozer and a loader were shipped to the Environmental Restoration Disposal Facility (ERDF) for re-use.
- Shipped water sheds to Plutonium Finishing Plant (PFP) for re-use.
- Man lift, grader, and excavator were shipped to 100K for re-use.
- Continued road removal and gravel removal from parking lots.
- Continued consolidation and removal of supplies that are no longer being used.

River Corridor Contract Critical Decision (CD)-4, Project Completion, and Documentation

- Accelerated work on critical decision (CD) CD-4 scope based on additional revisions to RL's schedule.
- Continued to work on the CD-4 package.
- Submitted the transition turnover package (TTP) to RL for review.

MAJOR ISSUES

Issue

The completion date for infrastructure demobilization has been pushed to September 2018 due to a delay with Mission Support Alliance, LLC (MSA) in removing the power poles going out from the 618-10 Burial Ground complex to the 400 Area. MSA is required to have an ecological/cultural review done before they can perform the work. MSA estimates that they will be able to start work on the remaining scope in July. However, due to the risk of fire season, 618-10 Burial Ground management is forecasting that the work will not be able to be completed until the end of the fiscal year (FY).

Corrective Action

The 618-10 Burial Ground management is communicating with MSA to minimize any additional impacts to cost or schedule over what has already been forecasted.

Status

The 618-10 Burial Ground management has verified that MSA will not need any CHPRC personnel on site when they are able to complete the work. As a result, the 618-10 Burial Ground project will continue ramp-down of staff and closeout of other contracts.

CORRECTIVE ACTION LOG

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

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

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

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

Contract-to-Date

WBS 041/ RL-0041 Capital Asset Project	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Estimate to Complete (ETC)	Variance at Completion (VAC)
Total	63.2	66.1	46.0	2.9	4.6%	20.2	30.5%	68.9	47.6	1.6	21.3

Numbers are rounded to the nearest \$0.1 million

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

CRITICAL PATH SCHEDULE

The critical path flows through 618-10 Burial Ground power pole removal and CD-4 activities.

SCHEDULE MARGIN/MANAGEMENT RESERVE

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

CRITICAL DECISION (CD) MILESTONE STATUS

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
KPP 1	Complete the 618-10 Burial Ground Remediation	1/31/2020		6/11/2018	Completion Criteria: Complete remediation, closeout sampling, issuing the closeout verification package, and backfill of the 618-10 Burial Ground.
KPP 2	Complete the Remediation of the 316-4 and 600-63 Waste Sites	1/31/2020	1/25/2018 (A)		The 316-4 Waste Site CVP was issued on January 25, 2018, completing requirements of KPP 2.
	CD-4 Closeout	1/31/2020		9/30/2018	

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None to report at this time.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL and Regulator (EPA) Review of CVP and Waste Site Reclassification Form for 618-10 Burial Ground	3/26/18 (A)	5/17/18 (A)

Appendix C.4

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

Contract Performance Reports

Format 1 - Work Breakdown Structure

Format 2 - Organizational Categories

Format 3 - Baseline

Format 4 - Staffing

Format 5 - Explanation and Problem Analysis

CH2MHILL
Plateau Remediation Company



May 2018
CHPRC-2018-05, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

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

DOLLARS IN

Thousands of \$

FORM APPROVED
OMB No. 0704-0188

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME PARS II - RL-0041.C1 Base Funded Nuc Fac D&D River Corr		a. NAME PARS II - RL-0041.C1 Base Funded Nuc Fac D&D River Corr		a. FROM (YYYYMMDD) 2018 / 04 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 05 / 27	
		c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> X YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18	

5. CONTRACT DATA								
a. QUANTITY 1	b. NEGOTIATED COST 0	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 68,921	d. TARGET PROFIT/FEE 0	e. TARGET PRICE 0	f. ESTIMATED PRICE 47,572	g. CONTRACT CEILING 0	h. ESTIMATED CONTRACT CEILING 47,572	i. DATE OF OTB/OTS (YYYYMMDD)

6. ESTIMATED COST AT COMPLETION				7. AUTHORIZED CONTRACTOR REPRESENTATIVE					
MANAGEMENT ESTIMATE AT COMPLETION (1)		CONTRACT BUDGET BASE (2)		VARIANCE (3)		a. NAME (Last, First, Middle Initial) Dickerson, Kala K		b. TITLE Prime Contract Compliance Manager	
a. BEST CASE 47,572						c. SIGNATURE		d. DATE SIGNED (YYYYMMDD)	
b. WORST CASE 48,830									
c. MOST LIKELY 47,572		0		-47,572					

8. PERFORMANCE DATA																	
CAPN.PBS Control Account.PARS 2 WBS (3)		CURRENT PERIOD					CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
ITEM (1)	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)	
	WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)							
RL-0041 Nuc Fac D&D - RC Closure Proj																	
RL_0041_C1.05.02 618-10 Burial Ground	1,117	794	739	-323	56	50,350	53,281	41,248	2,931	12,033	0	0	0	56,014	42,741	13,273	
RL_0041_C1.05.03 316-4 Waste Site	0	0	0	0	0	11,183	11,183	4,259	0	6,924	0	0	0	11,183	4,259	6,924	
RL_0041_C1.05.04 600-63 Waste Site	105	17	0	-88	17	1,611	1,611	445	0	1,167	0	0	0	1,611	445	1,167	
RL_0041_C1.05.06 RCC CD 4 Closeout and Doc	16	16	5	0	11	57	57	8	0	50	0	0	0	112	127	-15	
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
d. UNDISTRIBUTED BUDGET														0	0	0	
e. SUBTOTAL	1,238	827	744	-410	84	63,201	66,133	45,959	2,931	20,173	0	0	0	68,921	47,572	21,349	
f. MANAGEMENT RESERVE														0			
g. TOTAL	1,238	827	744	-410	84	63,201	66,133	45,959	2,931	20,173	0	0	0	68,921			

9. RECONCILIATION TO CONTRACT BUDGET BASELINE															
a. VARIANCE ADJUSTMENT															
b. TOTAL CONTRACT VARIANCE															
										2,931	20,173		68,921	47,572	21,349

CLASSIFICATION (When Filled in)

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

DOLLARS IN Thousands of \$

FORM APPROVED
OMB No. 0704-0188

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME PARS II - RL-0041.C1 Base Funded Nuc Fac D&D River Corr		a. NAME PARS II - RL-0041.C1 Base Funded Nuc Fact D&D River Corr		a. FROM (YYYYMMDD) 2018 / 04 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 05 / 27	
		c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE NO <input type="checkbox"/> X YES (YYYYMMDD) 2009 / 09 / 18			

WBS.FOC Control Account.PARS 2 WBS (3) ITEM (1)	CURRENT PERIOD						CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL 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)							
D41.6 - 618 10 Projects																	
RL_0041_C1.05.02 618-10 Burial Ground	1,117	794	739	-323	56	50,350	53,281	41,248	2,931	12,033	0	0	0	56,014	42,741	13,273	
RL_0041_C1.05.03 316-4 Waste Site	0	0	0	0	0	11,183	11,183	4,259	0	6,924	0	0	0	11,183	4,259	6,924	
RL_0041_C1.05.04 600-63 Waste Site	105	17	0	-88	17	1,611	1,611	445	0	1,167	0	0	0	1,611	445	1,167	
RL_0041_C1.05.06 RCC CD 4 Closeout and Documenta	16	16	5	0	11	57	57	8	0	50	0	0	0	112	127	-15	
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)	1,238	827	744	-410	84	63,201	66,133	45,959	2,931	20,173	0	0	0	68,921	47,572	21,349	
f. MANAGEMENT RESERVE														0			

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: 2018/04/23 b. TO: 2018/05/27								
5. CONTRACT DATA																		
a. ORIGINAL NEGOTIATED COST 0			b. NEGOTIATED CONTRACT CHANGE \$0		c. CURRENT NEGOTIATED COST (A + B) \$0		d. ESTIMATED COST AUTH UNPRICED WORK \$68,921		e. CONTRACT BUDGET BASE (C + D) \$68,921		f. TOTAL ALLOCATED BUDGET \$68,921		g. DIFFERENCE (E - F) \$0					
h. CONTRACT START DATE 6/19/2008			i. DEFINITIZATION DATE 6/19/2008		j. PLANNED COMPL DATE 9/30/2018		k. CONT COMPLETION DATE 9/30/2018			l. EST COMPLETION DATE 9/30/2018								
6. PERFORMANCE DATA																		
ITEM (1)	BCWS CUM TO DATE (2)	BCWS FOR REPORT PERIOD (3)	SIX MONTH FORECAST						BUDGETED COST FOR WORK SCHEDULED (NON - CUMULATIVE)								UNDISTRIB BUDGET (16)	TOTAL BUDGET (17)
			+1 Jun-18 (4)	+2 Jul-18 (5)	+3 Aug-18 (6)	+4 Sep-18 (7)	+5 Oct-18 (8)	+6 Nov-18 (9)	FY09-13 (10)	FY14 (11)	FY15 (12)	FY16 (13)	FY17 (14)	FY18 (15)				
a. PM BASELINE (BEGIN OF PERIOD)	61,964	1,238	1,254	1,579	2,102	785	0	0	0	0	0	3,497	47,591	17,833	0	68,921		
b. BASELINE CHANGES AUTH DURING REPORT PERIOD																		
RL_0041_C1.05.02 618-10 Burial Ground																		
None at this time																		
RL_0041_C1.05.03 316-4 Waste Site																		
None at this time																		
RL_0041_C1.05.04 600-63 Waste Site																		
None at this time																		
c. PM BASELINE (END OF PERIOD)																		
	63,201	1,238	1,254	1,579	2,102	785	0	0	0	0	0	3,497	47,591	17,833	0	68,921		

CLASSIFICATION (When Filled In)

CONTRACT PERFORMANCE REPORT

FORMAT 5 - Explanations and Problem Analysis

FORM APPROVED
OMB No. 0704-0188

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME 041.6 - 618 10 Projects		a. FROM (YYYYMMDD) 2018 / 04 / 24	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 05 / 27	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE No X Yes (YYYYMMDD) 2009 / 09 / 18			

5. Evaluation

Direct Projects

	Budget	Earned	Actuals	SV in \$	SV in %	CV in \$	CV in %	SPI	CPI
Current:	1,237.8	827.5	743.6	-410.4	-33.2%	83.9	10.1%	0.67	1.11
Cumulative:	63,201.4	66,132.6	45,959.3	2,931.1	4.6%	20,173.3	30.5%	1.05	1.44
	BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:	68,920.9	47,572.0	21,348.9	31.0%	0.12	1.73			

Explanation of Variance/Description of Problem:

CURRENT MONTH
The current month unfavorable schedule variance is caused by infrastructure demobilization activities at the 618-10 Burial Ground that have been re-sequenced, causing the completion of some activities to be delayed. The project still anticipates that demobilization will finish on schedule.
The current month cost variance is partially due to resource sharing and staff attrition that resulted in a reduction in staffing.

CONTRACT TO DATE
The cumulative schedule variance is within reporting thresholds.
The cumulative favorable cost variance is partially due to the sharing of resources and materials among the projects, which has resulted in fewer purchased materials and lower labor costs. Attrition has led to a reduction in staffing and in cost with work still being completed as planned with the resources left. In addition, excavation efficiencies at the 316-4 Waste Site reduced the total volume of soil to be removed, and the availability of existing crews to perform backfill scope at both the 316-4 Waste Site and the 618-10 Burial Ground instead of hiring a separate subcontractor resulted in cost savings.

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

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

Corrective Action:
Corrective Action:
None.

- Monthly Summary (to include technical causes of VARs, Impacts) and Corrective Action(s):**
- Schedule Margin Analysis: N/A, pending definitization of the scope.
 - IMS Data dictionary Changes: None in the month of May.
 - Forecast Schedule with No Baseline: None in the month of May.
 - UB Balance: N/A
 - Negative ACWP: None in the month of May.
 - EAC Analysis: Best Case: \$47.6M; Most Likely: \$47.6M; Worst Case: \$48.8M
 - Negative CV > VAC: N/A
 - MR Transactions: None in the month of May.
 - Freeze Period Changes: None in the month of May.
 - Retroactive Changes: None in the month of May.
 - EVT Changes: None in the month of May.