

Monthly Performance Report

October 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**

Monthly Performance Report

October 2018

Date Published
November 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

APPROVED

By Lynn M. Ayers at 2:34 pm, Nov 20, 2018

Release Approval

Date

TRADEMARK DISCLAIMER

Reference herein to any specific commercial product, process, or service by tradename, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof or its contractors or subcontractors.

This report has been reproduced from the best available copy.

Printed in the United States of America

CH2MHILL
Plateau Remediation Company



L. Ty Blackford
President and Chief
Executive Officer

Monthly Performance Report

U.S. Department of Energy Contract,
DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

October 2018
CHPRC-2018-10, Revision 0

CONTENTS

EXECUTIVE SUMMARY	2
TARGET ZERO PERFORMANCE	4
KEY ACCOMPLISHMENTS	5
MAJOR ISSUES.....	5
EARNED VALUE MANAGEMENT	6
FUNDING ANALYSIS	8
BASELINE CHANGE REQUESTS	9
SELF-PERFORMED WORK.....	12
GOVERNMENT FURNISHED SERVICES AND INFORMATION.....	13
DOE ACTIONS / DECISIONS	13

PROJECT BASELINE SUMMARY SECTIONS

Section A – Nuclear Materials Stabilization and Disposition of PFP (RL-0011)	A
Section B – Spent Nuclear Fuel Stabilization and Disposition (RL-0012)	B
Section C – Solid Waste Stabilization and Disposition (RL-0013)	C
Section D – Soil and Groundwater Remediation Project (RL-0030)	D
Section E – Nuclear Facility D&D, Remainder of Hanford (RL-0040)	E
Section F – Nuclear Facility D&D, River Corridor (RL-0041).....	F
Section G – FFTF Closure (RL-0042).....	G

APPENDICES

Appendix A – Contract Performance Reports
Appendix B – Project Services and Support (WBS 000)
Appendix C – Capital Asset Projects

EXECUTIVE SUMMARY

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

- **Waste and Fuels Management Project (W&FMP):** The Waste Encapsulation and Storage Facility (WESF) team upgraded lighting inside G-Cell to reduce heat in the room and improve visibility. The work team at WESF also finished dimensional verification for all 1,936 capsules required to validate their compliance with dry storage design criteria. At T Plant, crews placed the fourth sludge transport and storage container (STSC) into a canyon cell. The fifth STCC will be placed in early November.
- **Soil and Groundwater Remediation Project (S&GRP):** The project completed weekly sampling and monitoring at the 300-FF-5 Uranium Sequestration Project (monthly sampling will continue) and began demobilizing the monitoring equipment. The project completed stainless steel piping conversation at the KX Pump and Treat (P&T) and completed the modutank tie-in to the 200 West Pump and Treat.
- **Plutonium Finishing Plant (PFP) Closure Project:** The PFP team loaded-out the waste that had been on the ground at the southwest loadout area since December 2017, began modifying the waste load out area to make it safer, and began size-reducing waste on the northeast corner of the Main Processing Facility (234-5Z).
- **K Basins Operations (KBO):** The team shipped the fifth STSC to T Plant and completed integrated testing for the garnet filter media removal system at the Maintenance and Storage Facility. The project walked down the 618-10 Burial Ground with the revegetation subcontractor and completed the work package for the removal of the 116-KE-2 crib. The KBO team finished asbestos abatement inside the 165-KE Power Control Building in preparation for eventual demolition of the building.
- **River Risk Management Project (RRMP):** Workers at the 324 Building Disposition Project continued cleanup of the Sample Loadout Room and installed the roughing filter in D-Cell. They also completed the C-Cell foundation investigation, which supports structural design activities. At the Environmental Restoration Disposal Facility (ERDF), crews continued implementing the new enhanced controls to receive and dispose of PFP Closure Project waste.
- **Central Plateau Risk Management Project (CPRMP):** Stabilization of Tunnel 2 at Plutonium Uranium Extraction Plant (PUREX) began October 1, 2018, and is approximately 25 percent complete. The CPRMP team finished completed waste loadout at the Research Technology Laboratory.

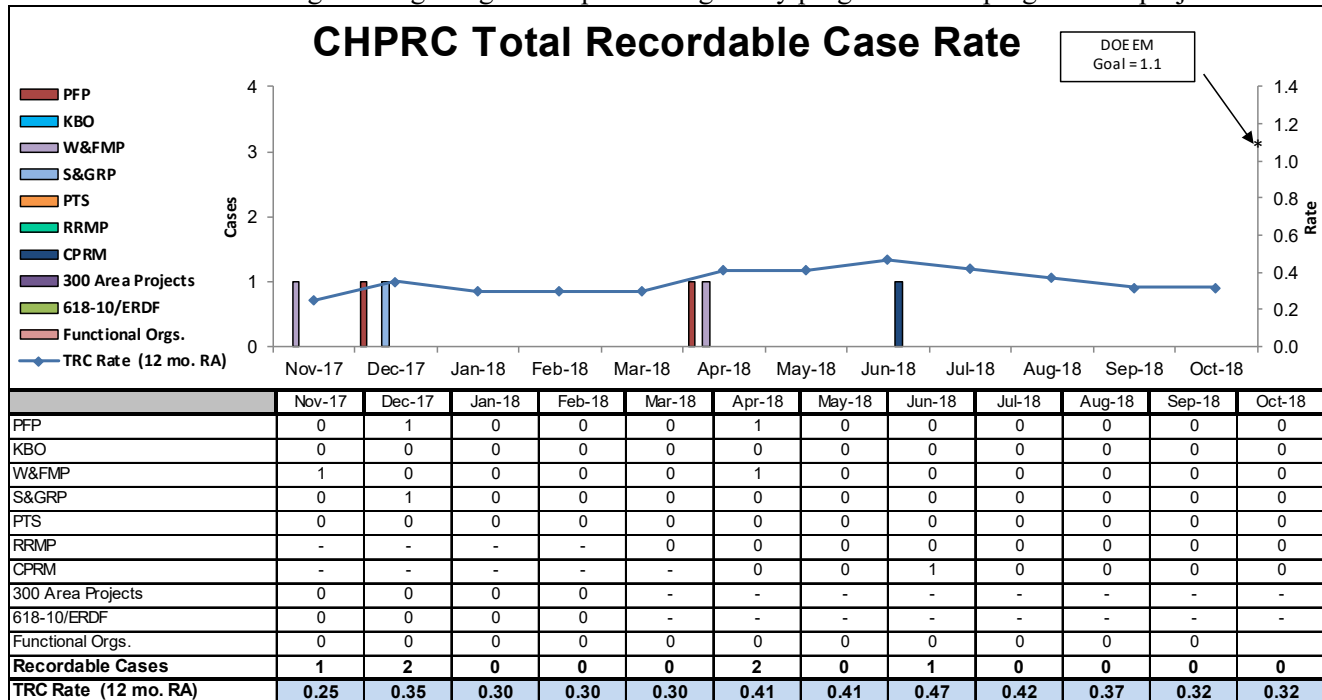


The Plutonium Finishing Plant team began the lower-risk work of debris loadout in October.

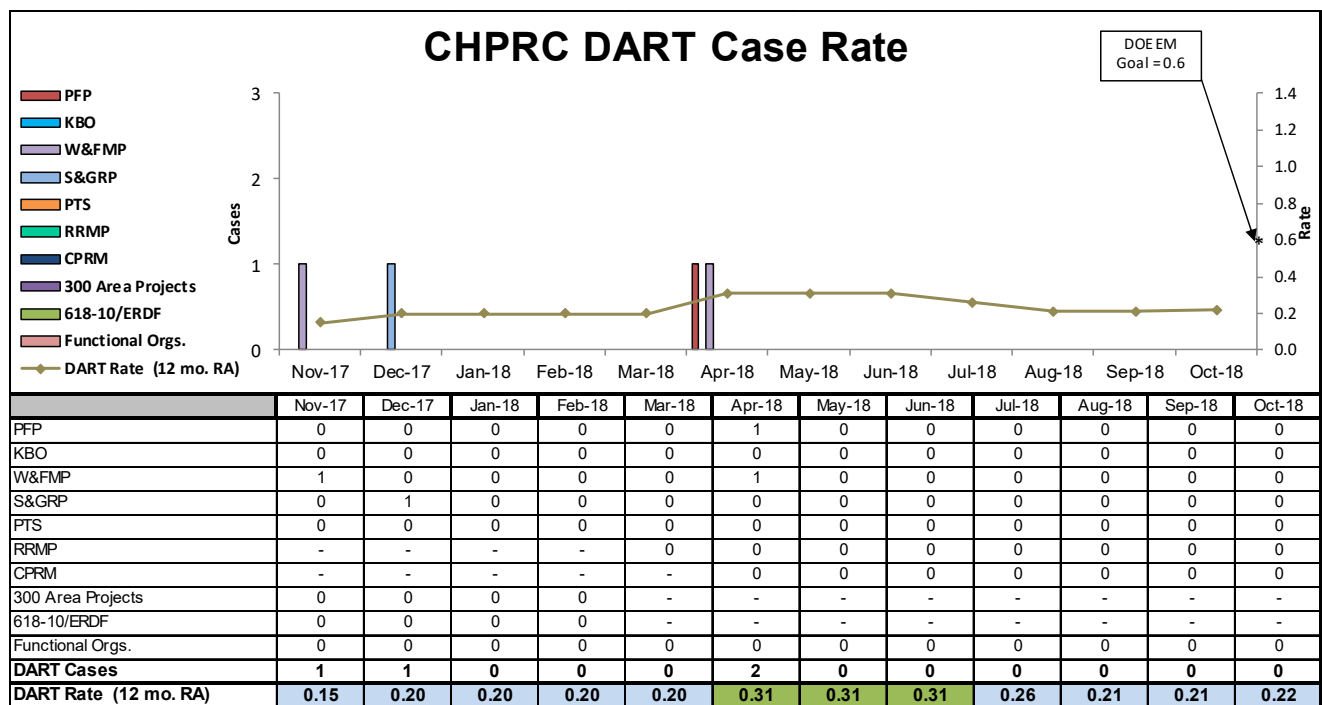
- The President's Zero Accident Council (PZAC) meeting for October was hosted by K Basin Operations (KBO). The three main ideas were:
 - o Utilize fire safety engineer expertise.
 - o Look-listen-learn be aware. Fire can happen anywhere!
 - o Plan now for driving in winter weather.
- Five "*Thinking Target Zero*" (TTZ) bulletins were published to convey important occupational, safety, health, and environmental messages:
 - o Autumn safety.
 - o Fire prevention.
 - o Voluntary Protection Program (VPP) self-assessment.
 - o Winter safety.
 - o Avoid drowsy driving.
- *Weekly Safety Tailgate* briefing packages communicated relevant topics and safety information to the workforce:
 - o Five Lessons Learned:
 - Demolition of a Mercury Contaminated Facility (offsite).
 - Los Alamos National Laboratory (LANL) – bridge crane gearbox failure
 - Material handling/load safety – increase in events at Washington River Protection Solutions (WRPS).
 - Preparing equipment and instrumentation for cold weather operations (offsite).
 - Critical Lift Program and Implementation – Change Management (offsite).
 - o Injuries.
 - o Weekly ethics moments.
 - o Vehicle events.
 - o Special safety bulletin (SSB) – Using powered air-purifying respirator (PAPR) cartridges correctly.
 - o Worksite flu clinics.
 - o Hanford mobile app.
 - o Dosimetry reminder.
 - o Fire safety at home.
 - o Pest control jurisdiction.
 - o Hard hats in cold weather.
 - o Bioassay protocols.
 - o Lapel samplers.
 - o VPP wants your feedback.
 - o Seatbelt use.
 - o Inclement weather.
 - o Prepare for change.

TARGET ZERO PERFORMANCE

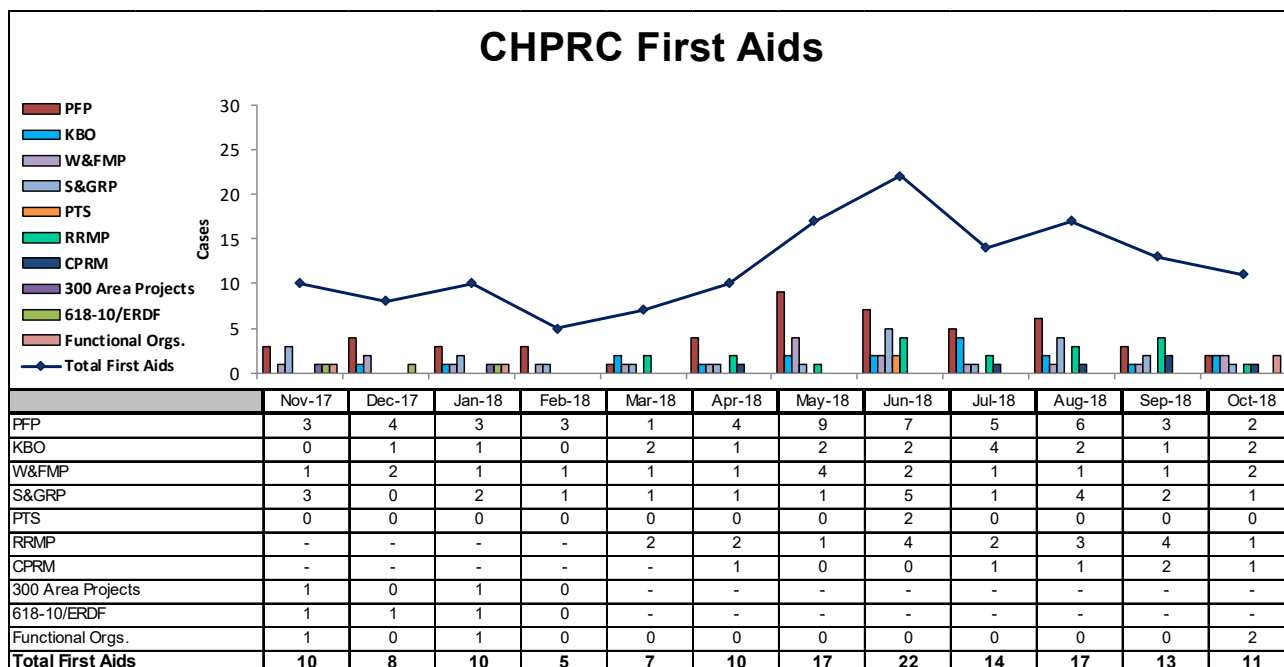
CHPRC continued focusing on integrating and implementing safety programs in all program and project areas.



Total Recordable Injury Case (TRC) Rate: The 12-month rolling average TRC rate of 0.32 is based on a total of six Recordable injuries. October had no reported Recordable cases.



Days Away, Restricted or Transferred (DART) Workdays Case Rate: The 12-month rolling average DART rate of 0.22 is based upon a total of four Days Away cases. October had no reported DART cases.



First Aid Case Summary: CHPRC reported 11 First Aid cases in October. The contributors were five sprains/strains/pains, four abrasions/bruises/contusions, one insect bite and one misc. (burns, rashes, repetitive motion, etc.) and injury. In addition, four self-treat cases were reported in October.

KEY ACCOMPLISHMENTS

Projects

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

Project Services and Support

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

MAJOR ISSUES

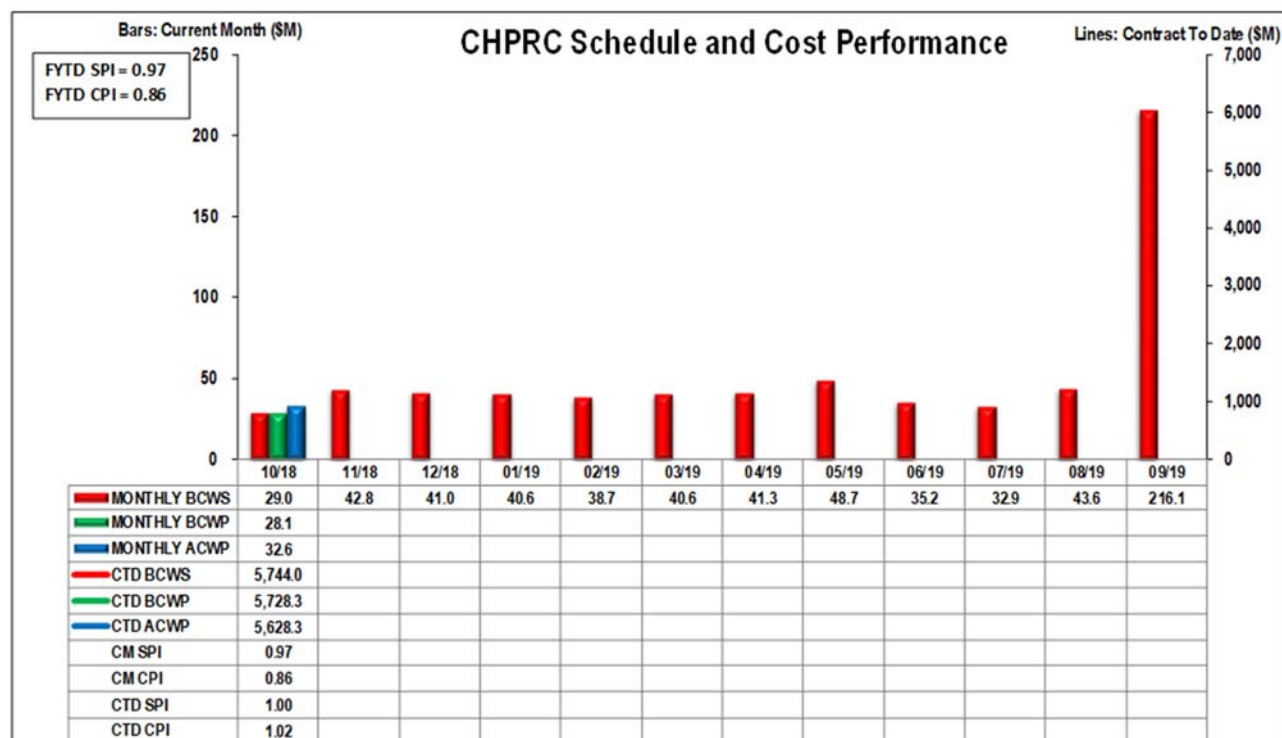
Projects

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

Project Services and Support

- No Major Issues to report for October.

EARNED VALUE MANAGEMENT



*September includes \$175.4 million of budgeted cost of work scheduled (BCWS) in undistributed budget.

	\$M						\$M						\$M		
	Current Period						Contract to Date						Contract Period		
	Budgeted Cost		Actual Cost		Variance		Budgeted Cost		Actual Cost		Variance				
	BCWS	BCWP	ACWP	Schedule	Cost		BCWS	BCWP	ACWP	Schedule	Cost		BAC	EAC	Variance
RL-0011 - Nuclear Materials Stab & Disp PFP	0.9	0.9	3.4	0.0	(2.4)		991.5	978.6	1144.3	(12.9)	(165.7)		1,006.0	1,198.2	(192.2)
RL-0012 - SNF Stabilization & Disposition	1.0	0.6	1.0	(0.4)	(0.4)		745.2	744.8	715.1	(0.4)	29.7		762.0	731.1	30.9
RL-0013 - Solid Waste Stab & Disposition	9.3	8.8	9.2	(0.5)	(0.4)		1352.8	1352.0	1257.1	(0.8)	94.9		1,562.0	1,465.2	96.8
RL-0030 - Soil & Water Rem-Grndwtr/Vadose	6.4	6.2	6.3	(0.2)	(0.1)		1533.1	1532.8	1480.3	(0.3)	52.6		1,713.2	1,659.7	53.5
RL-0040 - Nuc Fac D&D - Remainder	3.4	5.4	4.8	2.0	0.6		495.1	497.2	472.6	2.0	24.5		575.8	552.7	23.1
RL-0041 - Nuc Fac D&D - RC Closure Project	7.9	6.0	7.7	(1.9)	(1.7)		599.7	596.2	536.9	(3.4)	59.4		718.3	658.0	60.3
RL-0042 - Nuc Fac D&D - FFTF Project	0.1	0.1	0.1	0.0	(0.0)		26.6	26.6	22.1	(0.0)	4.5		28.2	23.7	4.5
(Values are rounded to the nearest \$0.1M)	Total	29.0	28.1	32.6	(0.9)	(4.4)	5,744.0	5,728.3	5,628.3	(15.8)	99.9		6,365.5	6,288.6	76.9
(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 \$76.9 million, with \$63.3 million of management reserve (MR), for a total positive variance of \$140.2 million. For October, the project was 3.2 percent behind schedule and 15.8 percent over planned cost. Contract to date (CTD), the project was 0.3 percent behind schedule and 1.7 percent under planned cost.

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

The CM negative cost variance is primarily due to Project Breakdown Structure (PBS) RL-0011 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, revising radiological postings, infrastructure modifications, 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 and mockups are performed, costs for labor, subcontracts, and material purchases add to the current month variance. Additionally, work to size reduce and loadout debris associated with demolition has been slower than planned due to continued process improvements being implemented and a learning curve associated with revised requirements.

PBS RL-0041 is also contributing to the negative cost variance due to additional subcontractor costs on the 324 Building Disposition Project in support of work scope that has pushed into FY2019 from FY2018 (i.e. interference removal, 324 Building design for structural modifications).

FUNDING ANALYSIS

FY2019 Funds vs. Fiscal Year Spend Forecast

(\$M)

		FY2019		
PBS	Project	Projected Funding	Spending Forecast	Variance
Estimate at Complete				
RL-0011	Nuclear Materials Stabilization and Disposition	70.0	53.0	17.0
RL-0012	Spent Nuclear Fuel Stabilization and Disposition	20.1	18.0	2.1
RL-0012	15-D-401 Sludge Retrieval Project	11.3	0.0	11.3
RL-0013	Waste and Fuels Management Project	173.5	162.1	11.4
RL-0013	Management of Cesium and Strontium Capsules	6.6	2.4	4.3
RL-0030	Soil, Groundwater and Vadose Zone Remediation	132.9	124.6	8.3
RL-0040	Nuclear Facility D&D, Remainder of Hanford	97.4	69.3	28.1
RL-0041	Nuclear Facility D&D, River Corridor	132.7	116.6	16.1
RL-0042	Fast Flux Test Facility Closure	4.3	2.0	2.3
Total Estimate at Complete		649.0	547.9	101.1
Scope Pending Change Management				
RL-0013	Waste and Fuels Management Project	0.0	2.2	(2.2)
RL-0030	Soil, Groundwater and Vadose Zone Remediation	0.0	4.5	(4.5)
Total Incremental Work Scope		0.0	6.7	(6.7)
Total Fiscal Year Spend Forecast				
RL-0011	Nuclear Materials Stabilization and Disposition	70.0	53.0	17.0
RL-0012	Spent Nuclear Fuel Stabilization and Disposition	20.1	18.0	2.1
RL-0012	15-D-401 Sludge Retrieval Project	11.3	0.0	11.3
RL-0013	Waste and Fuels Management Project	173.5	164.3	9.2
RL-0013	Management of Cesium and Strontium Capsules	6.6	2.4	4.3
RL-0030	Soil, Groundwater and Vadose Zone Remediation	132.9	129.1	3.8
RL-0040	Nuclear Facility D&D, Remainder of Hanford	97.4	69.3	28.1
RL-0041	Nuclear Facility D&D, River Corridor	132.7	116.6	16.1
RL-0042	Fast Flux Test Facility Closure	4.3	2.0	2.3
Total		649.0	554.6	94.3

Funds/Variance Analysis

FY2019 expected funding of \$649.0 million includes \$131.9 million carryover funding and an expected new budget authority of \$517.1 million. Carryover funds for the Sludge Retrieval Project (SRP) will be de-obligated in early FY2019. The spending forecast is based on the final FY2019 PMB annual update submitted to RL on September 14, 2018, with updates through October.

BASELINE CHANGE REQUESTS

In October 2018, CHPRC approved and implemented 11 BCRs into the PMB budget. Four of the 11 BCRs impacted the PMB. Each change request is identified in the table below:

Change Request #	Title	PBS	Summary of Change
BCR-000-19-001R0	<i>FY2019 Labor and Waste Rates Implementation – Indirect Budget</i>	000	This BCR implemented the FY2019 labor and waste rates for the indirect budgets in the FY2019 PMB. This BCR did not change the PMB value.
BCR-000-19-002R0	<i>FY2019 Base Year Shift Implementation –Indirect Budget</i>	000	This BCR implemented the FY2019 base year shift for the indirect budgets in the FY2019 PMB. This BCR did not change the PMB value.
BCR-000-19-003R0	<i>Implementation of FY2019 PMB –Indirect Budget</i>	000	This BCR implemented the CHPRC FY2019 PMB for the indirect budgets. This BCR did not change the PMB value.
BCR-013C-19-001R0	<i>FY2019 Labor, G&A, and Waste Rates Implementation –W-135 CAP</i>	RL-0013	This BCR implemented the FY2019 labor, G&A, and waste rates for the W-135 CAP Project in the FY2019 PMB. This BCR decreased the PMB value by \$123K.
BCR-013C-19-002R0	<i>FY2019 Base Year Shift Implementation –W-135 CAP</i>	RL-0013	This BCR implemented the FY2019 base year shift for the W-135 CAP Project in the FY2019 PMB. This BCR did not change the PMB value.
BCR-041C-19-001R0	<i>FY2019 Labor, G&A, and Waste Rates Implementation –RL-0041 CAP</i>	RL-0041	This BCR implemented the FY2019 labor, G&A, and waste rates for the RL-0041 CAP Project in the FY2019 PMB. This BCR decreased the PMB value by \$1,548K.
BCR-041C-19-002R0	<i>FY2019 Base Year Shift Implementation –RL-0041 CAP</i>	RL-0041	This BCR implemented the FY2019 base year shift for the RL-0041 CAP Project in the FY2019 PMB. This BCR did not change the PMB value.
BCR-PRC-19-001R0	<i>Implementation of FY2019 Performance Measurement Baseline</i>	RL-0011, RL-0012, RL-0013, RL-0030, RL-0040, RL-0041, RL-0042	This BCR implemented the CHPRC FY2019 PMB. This BCR increased the PMB value by \$490,084K.
BCR-PRC-19-002R0	<i>FY2019 Labor, G&A, and Waste Rates Implementation -OA Projects</i>	RL-0011, RL-0012, RL-0013, RL-0030, RL-0040, RL-0041, RL-0042	This BCR implemented the FY2019 labor, G&A, and waste rates for OA projects in the FY2019 PMB. This BCR decreased the PMB value by \$13,194K.
BCR-PRC-19-003R0	<i>FY2019 Base Year Shift Implementation -OA Projects</i>	RL-0011, RL-0012, RL-0013, RL-0030, RL-0040, RL-0041, RL-0042	This BCR implemented the FY2019 base year shift for OA projects in the FY2019 PMB. This BCR did not change the PMB value.

Change Request #	Title	PBS	Summary of Change
BCRA-PRC-19-005R0	<i>HPIC Updates October 2018</i>	000, RL-0011, RL-0012, RL-0013, RL-0030, RL-0040, RL-0041	This BCR incorporated October FY2019 Hanford Programs Integrated Control Module (HPIC) updates. This BCR did not change the PMB value.

The allocated (distributed) budget increased by \$475,220K.

Undistributed Budget Activity

BCR Number	Title	PBS	Fiscal Year	UB
N/A	N/A	N/A	2019	N/A

There was no change to undistributed budget in October.

Management Reserve Activity

BCR Number	Title	PBS	Fiscal Year	MR
N/A	N/A	N/A	2019	\$0

Overall, there was no change to MR in October.

Fee Activity

BCR Number	Title	PBS	Fiscal Year	Fee
N/A	N/A	N/A	2019	N/A

Overall, there was no change to fee during October.

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

October 2018 Summary of Changes

	FY 2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY: 2014-2018	FY2019	Contract Period Total	Total PMB
September 2018 Estimate										
PMB	3,391,477	391,653	471,323	504,826	485,028	470,649	2,323,478	175,358	5,890,312	5,714,955
MR	0	0	0	0	0	0	0	63,278	63,278	63,278
Fee	155,504	14,325	14,501	27,804	10,612	18,860	86,101	0	241,605	241,605
Total	3,546,981	405,978	485,824	532,630	495,639	489,509	2,409,579	238,636	6,195,196	6,019,838
October 2018 Change										
PMB										
Change to PMB	0	0	0	0	0	0	0	475,220	475,220	475,220
MR										
Change to MR	0	0	0	0	0	0	0	0	0	0
Fee										
Change to Fee	0	0	0	0	0	0	0	0	0	0
Total Change	0	0	0	0	0	0	0	475,220	475,220	475,220
October 2018 Estimate										
PMB	3,391,477	391,653	471,323	504,826	485,028	470,649	2,323,478	650,577	6,365,532	6,190,174
MR	0	0	0	0	0	0	0	63,278	63,278	63,278
Fee	155,504	14,325	14,501	27,804	10,612	18,860	86,101	0	241,605	241,605
Total	3,546,981	405,978	485,824	532,630	495,639	489,509	2,409,579	713,855	6,670,415	6,495,057

Changes to/Utilization of Management Reserve in October 2018

	FY2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2014-2018	FY2019	Total
September 2018 MR Totals									
RL-0011	0	0	0	0	0	0	0	5,828	5,828
RL-0012	0	0	0	0	0	0	0	8,163	8,163
RL-0013	0	0	0	0	0	0	0	6,185	6,185
RL-0030	0	0	0	0	0	0	0	17,863	17,863
RL-0040	0	0	0	0	0	0	0	8,700	8,700
RL-0041	0	0	0	0	0	0	0	16,350	16,350
RL-0042	0	0	0	0	0	0	0	189	189
Total	0	0	0	0	0	0	0	63,278	63,278
October 2018 MR Changes/Utilization									
RL-0011	0	0	0	0	0	0	0	0	0
RL-0012	0	0	0	0	0	0	0	0	0
RL-0013	0	0	0	0	0	0	0	0	0
RL-0030	0	0	0	0	0	0	0	0	0
RL-0040	0	0	0	0	0	0	0	0	0
RL-0041	0	0	0	0	0	0	0	0	0
RL-0042	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0
October 2018 MR Totals									
RL-0011	0	0	0	0	0	0	0	5,828	5,828
RL-0012	0	0	0	0	0	0	0	8,163	8,163
RL-0013	0	0	0	0	0	0	0	6,185	6,185
RL-0030	0	0	0	0	0	0	0	17,863	17,863
RL-0040	0	0	0	0	0	0	0	8,700	8,700
RL-0041	0	0	0	0	0	0	0	16,350	16,350
RL-0042	0	0	0	0	0	0	0	189	189
Total	0	0	0	0	0	0	0	63,278	63,278

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 (\$M) 10/1/2008 - 10/31/2018					
Reporting Category					
	\$ Value	%	Goal %		
SB	\$1,567.5	56.01%	49.3%	PRC clause H.20b small business requirement	
SDB	\$275.4	9.84%	8.2%	≥ 17% of CHPRC Contract Price performed by SB.	
SWOB	\$293.1	10.47%	7.5%	CHPRC Contract Value:	\$5,824.8
HUB	\$87.7	3.13%	2.2%	SB actual:	\$1,567.5
VOSB	\$243.6	8.70%	3.5%	SB Performed %:	26.91%
SDVO	\$154.6	5.53%	1.3%	PRC clause H.20a max self performed requirement	
NAB	\$71.0	2.54%	N/A	≤ 65% of Contract Price Self Performed	
Large	\$730.6	26.11%	N/A	CHPRC Contract Value:	\$5,824.8
GOVT	\$4.8	0.17%	N/A	CHPRC Self Performed:	\$3,026.4
GOVT CONT	\$483.2	17.27%	N/A	CHPRC Self Performed %:	51.96%
EDUCATION	\$0.1	0.00%	N/A		
NONPROFIT_	\$4.1	0.15%	N/A		
FOREIGN	\$8.1	0.29%	N/A		
Total	\$2,798.4	100.00%	N/A		

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 six percent of the remaining expenditures arising from PCard purchases and three percent from the balance in purchase orders for materials and equipment.
3. Data is summarized by business categories (Women Owned Minority Business Enterprise codes) in accordance with socioeconomic reporting requirements. Small business categories overlap and should not be added together.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

Contract Section	Project	GFS/I	Status
CONTRACT			
J.12/C.2.2, C.2.3	<p>PBS-11, Plutonium Finishing Plant Closure Project</p> <p>PBS-13, Solid and Liquid Waste Treatment and Disposal</p>	Offsite Transportation of Radioactive Material: RL provides equipment and government drivers to transport Transuranic (TRU) materials outbound/inbound between the Hanford Site and Perma-Fix Northwest (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.	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
Vice President for
Plutonium Finishing Plant
Closure Project

October 2018
CHPRC-2018-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

Completed waste shipments to the Environmental Restoration Disposal Facility (ERDF) in October that had been loaded at the Plutonium Finishing Plant (PFP) prior to the December 2017 contamination event. Loadout of existing 234-5Z building debris continued throughout October and approximately eight percent of the existing debris pile has been shipped to ERDF for disposal. The higher-risk demolition scheduled to begin in March 2019 is currently being planned, and preparations for a second management assessment are in progress.

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	0.3 m ³	89.8 m ³
Transuranic/Transuranic Mixed (TRU/TRU-M) Shipped	0 m ³	5,014 m ³
LLW/MLLW Shipped	133 m ³	16,629 m ³

EMS Objectives and Target Status (Draft)

Objective #	Objective	Target	Due Date	Status
19-EMS-PFP-OBJ1-P1	Resource conservation, alternative energy sources	Use of solar powered lighting. Monitor energy savings and implementation.	9/30/2019	0%

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis)

	Current Month	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	1	N/A
Total Recordable Injuries	0	1	N/A

	Current Month	Rolling 12 Month	Comment
First Aid Cases	2	50	<p>10/5/2018 - Employee was in the process of entering the old High Contamination Area (HCA) Contamination Area (CA) exit cargo connex just west of MO032. Upon entering the connex, the employee reported to have missed the step, causing them to lose balance and fall to their left knee, causing a small abrasion. No blood was noted. (24990)</p> <p>10/11/2018 – Employee was sitting in a water truck filled with fixative when they smelled an odor. The truck had a small leak of fixative, which was leaking on the ground right behind the cab. Employee reported that the fixative smelled stronger, and had a somewhat solvent smell not typical of other days. The employee originally indicated they had no issues or concerns. During the afternoon briefing when the field work supervisor was discussing this with the crew, the employee indicated that they had a burning sensation in their nose. At that time, the employee was taken to HPMC for evaluation. Proper notifications were made. The employee returned to work with no restrictions. (24996)</p>
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

RL-0011 Accomplishments

- Finished shipping waste that was loaded prior to the December 2017 contamination event.
- Loaded and shipped approximately eight percent of existing 234-5Z rubble debris.
- Continued implementation of process improvements for ERDF waste disposition by elevating the loadout area and procuring steel plates that will be placed under the waste containers to expedite the loading and unloading of the containers, directing any liquids toward the berm and speed up the process of cleaning up any spills.

MAJOR ISSUES









No major issues experienced in October.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

↑ Increased Confidence
 ↔ No Change
 ↓ Decreased Confidence

Risk Title	Unmitigated Risk Impacts	Assessment		Comments															
		Month	Trend																
RL-0011/WBS-011.OA																			
Explanation of major changes to the project monthly spotlight chart: Risk PFP-P-014, <i>Bump and Roll, LAMP, or Other Contractor Hiring of Bargaining Unit Employees Affecting Productivity</i> , were added to the spotlight chart as realized risks. In addition, risks PFP-P-007, <i>Demolition Equipment Reliability and Modification</i> , and PFP-P5-006, <i>Additional Soil Removal is Required</i> , were added to the spotlight chart as Fiscal Year (FY) 2019 Risk Triggers based on the FY2019 Risk Analysis.																			
Realized Risks (Risks that are currently impacting project cost/schedule)																			
PFP-P-014: Bump and Roll, LAMP, or Other Contractor Hiring of Bargaining Unit Employees Affecting Productivity	Plutonium Finishing Plant (PFP) Hanford Atomic Metal Trades Council (HAMTC) labor resources are unavailable or unqualified due to the bump and roll, LAMP (Labor Assets Management Program) or other job postings, resulting in schedule impacts to the project. Risk Handling Strategy: Control Probability: Very Low (<10%) Worst Case Impacts: \$0, 64 days			Risk Event: Twenty-five Decontamination and Decommissioning (D&D) workers have been hired to other projects on the Hanford Site and will be leaving PFP. The process to hire new D&D workers has been initiated. <table border="1"><thead><tr><th>Risk recovery action(s)</th><th>FC Date</th><th>%</th></tr></thead><tbody><tr><td>Communication and coordination with other projects, contractors, and unions to reduce or eliminate the impact of the bump and roll process.</td><td>Ongoing</td><td>N/A</td></tr><tr><td>Hire and train additional D&D workers as needed to perform demolition work at PFP.</td><td>1/29/19</td><td>10%</td></tr></tbody></table> Risk Action Assessment: Offers have been made to new D&D workers and training is scheduled to begin December 3, 2018.	Risk recovery action(s)	FC Date	%	Communication and coordination with other projects, contractors, and unions to reduce or eliminate the impact of the bump and roll process.	Ongoing	N/A	Hire and train additional D&D workers as needed to perform demolition work at PFP.	1/29/19	10%						
Risk recovery action(s)	FC Date	%																	
Communication and coordination with other projects, contractors, and unions to reduce or eliminate the impact of the bump and roll process.	Ongoing	N/A																	
Hire and train additional D&D workers as needed to perform demolition work at PFP.	1/29/19	10%																	
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)																			
No critical risks in October .																			
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)																			
No high risk threat value risks in October .																			
FY2019 Risk Triggers (Risk could be realized in FY2019)																			
PFP-P-004: Stop Work From Concerned Workers	Concerned workers result in a stop work to address 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 Probability: Very Likely (>90%) Worst Case Impacts: \$0, 52 days			Risk Event: During resumption of PFP demolition activities, an increase in stop works could result in delays. <table border="1"><thead><tr><th>Mitigation action(s)</th><th>FC Date</th><th>%</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> Mitigation Assessment: No major changes in October . Increased communication and worker involvement to avoid confusion and concern in an effort to minimize stop works.	Mitigation 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
Mitigation 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-007: Demolition Equipment Reliability and Modification	Ineffective demolition equipment attachments, mechanical failures, or contamination of clean equipment, impact the demolition of PFP. Equipment modification, leasing, or replacement will be required resulting in cost and schedule impacts. Risk Handling Strategy: Control Probability: Low (10% to 25%) Worst Case Impacts: \$1M, 48 days			Risk Trigger: Equipment failures result in delays to fieldwork. <table border="1"><thead><tr><th>Mitigation action(s)</th><th>FC Date</th><th>%</th></tr></thead><tbody><tr><td>Repurpose other owned equipment on-site.</td><td>Ongoing</td><td>N/A</td></tr><tr><td>Develop and maintain min/max inventory of spares.</td><td>10/15/18</td><td>100%</td></tr><tr><td>Perform planned preventative maintenance on equipment.</td><td>2/28/19</td><td>80%</td></tr></tbody></table> Mitigation Assessment: All mitigations have been sufficient to maintain equipment in working condition.	Mitigation action(s)	FC Date	%	Repurpose other owned equipment on-site.	Ongoing	N/A	Develop and maintain min/max inventory of spares.	10/15/18	100%	Perform planned preventative maintenance on equipment.	2/28/19	80%			
Mitigation action(s)	FC Date	%																	
Repurpose other owned equipment on-site.	Ongoing	N/A																	
Develop and maintain min/max inventory of spares.	10/15/18	100%																	
Perform planned preventative maintenance on equipment.	2/28/19	80%																	
PFP-P5-006: Additional Soil Removal is Required	Prior to the placement of the cover cap, the additional soil added for contamination control is required to be dispositioned,			Risk Trigger: Additional soil, above planned value, is required to be removed due to contamination or regulatory concerns.															

resulting in cost and schedule delays to the project. Risk Handling Strategy: Control Probability: Low (10% to 25%) Worst Case Impacts: \$0, 54 days				Mitigation action(s)	FC Date	%
				Engage early with RL to identify a path forward associated with the additional soil.	11/9/18	75%
				Replan the schedule as needed to incorporate plan prior to Critical Decision-2/3 rebaselining efforts.	12/3/18	50%
				Mitigation Assessment: Continued communication with RL on required soil removal. No additional soil above planned quantity is required at this time.		
Unassigned Risks (Pending ownership of identified risks/opportunities)						
No unassigned risks identified in October .						

PROJECT BASELINE PERFORMANCE

Current Month

(\$M)

WBS 011/RL-0011 Nuclear Matl Stab & Disp PFP	Budgeted Cost of Work Scheduled (BCWS)	Budgeted Cost of Work Performed (BCWP)	Actual Cost of Work Performed (ACWP)	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	0.9	0.9	3.4	0.0	1.9%	(2.4)	-261.2%

Numbers are rounded to the nearest \$0.1 million.

CM Schedule Variance: (+\$0.0M/+1.9%)

The CM schedule variance is within threshold.

CM Cost Variance: (-\$2.4M/-261.2%)

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, revising radiological postings, infrastructure modifications, 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 and mockups are performed, costs for labor, subcontracts, and material purchases add to the current month variance. Additionally, work to size reduce and loadout debris associated with demolition has been slower than planned due to continued process improvements being implemented and a learning curve associated with revised requirements.

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	991.5	978.6	1,144.3	(12.9)	-1.3%	(165.7)	-16.9%	1,006.0	1,198.2	53.9	(192.2)

Numbers are rounded to the nearest \$0.1 million

Contract-to-Date (CTD) Schedule Variance (-\$12.9M/-1.3%)

The CTD schedule variance is within threshold.

CTD Cost Variance (-\$165.7M/-16.9%)

The negative CTD cost variance is primarily a result of prior year unrecoverable costs, as well as impacts to the D&D work scope. 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 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: fixative applications, performance of radiological surveys, revising radiological postings, infrastructure modifications, and stabilization activities. Reassignment of CHPRC personnel to support the Radiological Control Area 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 was processed in September 2017 to draw down RL contingency to recover cost impacts to the project breakdown structure (PBS) RL-0011 C.2 project associated with realized RL risks, which also partially offset the variance. Areas impacted were associated with weather delays, stop works, Plutonium Reclamation Facility 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 (-\$192.2M/-19.1%)

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, approximately 10,000 additional feet of asbestos was discovered between the walls that 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.

Overtime was used to ready the 234-5Z Facility for demolition by September 2017. Also, unplanned work on the high-density polyethylene 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.

After a stop work was called due to the December 2017 contamination event, the Estimate At Completion (EAC) and VAC is reflective of the projected date to reach slab-on-grade in June 2019. The EAC is reflective of resumption activities and revised demolition approach implementation.

The VAC does not include the revised demolition approach pending Independent Cost Estimate/External Cost Review (ICE/ECR).

Contract Performance Report Formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST (\$M)

WBS 011/RL-0011 Nuclear Matl Stab & Disp PFP	FY2019		
	Projected Funding	Spending Forecast	Variance
Spending Forecast	70.0	53.0	17.0
Incremental Scope Pending Change Management	0.0	0.0	0.0
RL-0011 - Total	70.0	53.0	17.0

Numbers are rounded to the nearest \$0.1 million

Funds/Variance Analysis

FY2019 expected required funding for PBS RL-0011 is \$53.0 million to allow for continuation of demolition activities to achieve slab-on-grade. Projected funding is \$70.0 million.

Critical Path Schedule

The PFP Critical Path Schedule begins with debris disposition of the 234-5Z rubble piles 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 process line demolition, Remote Mechanical A process line demolition, and loadout of glovebox HA-46, in parallel with completion of the basement of 234-5Z demolition, will begin after a second management assessment and concurrence is obtained to resume high-risk demo from RL. The 234-5Z demolition is projected to complete April 23, 2019. The 236-Z Canyon demolition will then resume with completion scheduled for June 24, 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 in September 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 following table is a one-year look-ahead of commitments and Tri-Party Agreement-enforceable milestones.

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-083-00A	PFP Facility Transition and Selection Disposition Activities	9/30/2017		6/24/2019	There has been a 12-day schedule loss since September. This was a result of incorporation of further revisions to the revised demo approach responding to the contamination event that occurred in December 2017.

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, PFP 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 compliance with DOE Manual 460.2-1. RL arranges for Commercial Motor Vehicle Safety Alliance 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 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

October 2018
CHPRC-2018-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

The fourth Sludge Transport & Storage Container (STSC) was disconnected and prepped for shipment on September 27, 2018, and placed in interim storage at T Plant on October 3, 2018. The fifth STSC is forecasted to be disconnected and prepped for shipment on October 31, 2018, and placed in interim storage at T Plant on November 2, 2018. The sixth STSC is forecast to be placed in interim storage at T Plant the beginning of December.

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	0	N/A
Recordable Injuries	0	0	N/A
First Aids	2	16	10/09/2018 – Employee's arm was grazed by a hoist that slid to the end of a tilted beam. (24994) 10/10/2018 – Employee was stung on the finger by a bee. (24995)
Near Misses	1	1	10/09/2018 – While moving a suspended load (XAGO Retrieval Tool), the load shifted suddenly. A beam clamp used to maintain the load in position moved on the beam. This resulted in one end of the load rotating down rapidly, and the hoist traveling to the end of the beam, grazing an employee's right arm.

KEY ACCOMPLISHMENTS

100K Operations

- The 100K Operations group maintained facilities in a safe and compliant condition. Crews continued to sort, characterize and relocate/containerize the high dose sludge material in the center bay.

KW Basin Sludge Removal

- 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.
- Following change out of the ion exchange module (IXM), the fifth STSC was received and prepped for sludge transfer. It is forecasted to be placed in interim storage at T Plant on November 2, 2018.

- The new cask lid passed Acceptance Verification Services (AVS) and, following leak testing, will be installed on sludge transport system (STS) cask number 2 and used to transport the sixth STSC to T Plant.

MAJOR ISSUES

Issue:

Discovered sludge densities may require procurement/processing/storage of additional STSCs beyond the baseline assumptions of 22.

Engineered container sludge mass is likely greater than assumed in the baseline. The material-balance calculations completed to forecast the total number of STSCs required to execute the Sludge Removal Project (SRP) may have used sludge density values that do not accurately characterize the sludge stored in the 105KW engineered containers (ECs). If the actual sludge mass in the ECs ($\text{mass} = \text{density} \times \text{volume} = \rho \times V$) is greater than the mass currently projected in source documents, additional STSCs may be required to remove and store the remaining sludge.

Corrective Action:

Video inspections of each of the sludge ECs have recently been completed to estimate current volumes. Upon completion of STSC 6, engineering personnel will complete evaluation of settled density values in EC-230, settler sludge, and EC-250, KE sludge, and make final recommendations on the estimated number of STSCs to complete the sludge campaign.

Status:

100K engineering personnel believe the average archived sample density established in PNNL-27704 for sludge material removed from each of the six ECs, is likely a more accurate representation of existing EC sludge density (rather than the density values produced 24 hours after sample settling). Applying the more conservative settled density values indicates that the existing material will require between 24 to 26 STSCs, rather than the 22 STSCs currently planned.

Issue:

Attrition of qualified personnel. Since the initiation of sludge removal activities in June 2018, there has been greater than 25 percent attrition of nuclear chemical operators (NCOs) and radiation control technicians (RCTs) that have either left the organization or taken leave via short-term disability. The loss of qualified personnel may potentially impact achieving sludge removal schedule goals.

Corrective Action:

Additional RCTs and NCOs must be hired to backfill vacant RCT and NCO positions. Personnel must be trained and qualified prior to deployment.

Status:

Although there are currently sufficient NCOs/RCTs to support dayshift 105KW Basin and ECRTS Operations, the attrition over the last four months has been significant. Approximately seven additional RCTs have been hired and are in the training/qualification process. Approximately eight additional NCO positions were posted and applicants have been selected. While several exempt employees have left the project in the last four months, replacements were more quickly deployable.

RISK MANAGEMENT STATUS

Unassigned Risk

Risk Passed

New Risk

Change



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



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



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









Increased Confidence





No Change



Decreased Confidence

Unmitigated Risk Impacts		Assessment		Comments															
		Month	Trend																
RL-0012/WBS-012																			
Explanation of major changes to the project monthly spotlight chart: Risk STP-108, <i>Annex Equipment and ECRTS/Ancillary System Reliability</i> , was added to the spotlight chart as fiscal year (FY) 2019 Risk Triggers based on the FY2019 Risk Analysis. Risks STP-152, Attrition, Acquisition, & Retention of Qualified Exempt Employees, and STP-156-C, <i>Sludge Removal Campaign Extended Due to Discovery of High Dose Material</i> , were removed from the Risk Trigger section and added as realized risks. Risks STP-153, <i>Sludge Engineered Container End Point Criteria</i> , and STP-156-C, <i>Sludge Removal Campaign Extended Due to Discovery of High Dose Material</i> , were added to the spotlight chart as realized risks.																			
Realized Risks (Risks that are currently impacting project cost/schedule)																			
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: Low (10% to 25%) Worst Case Impacts: \$1,000K, 48 days			<p>Risk Event: Although the project did not realize a failed cask leak rate test, a negative trend on Cask 2 resulted in a project management determination that it was necessary to procure a replacement lid.</p> <table><tr><th>Risk recovery action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Verify that both casks can pass the leak test criteria prior to initiating sludge removal operations.</td><td>Complete</td><td>100</td></tr><tr><td>Institute procedural controls that maintain cask sealing surfaces in a condition that leak tightness is not compromised.</td><td>Complete</td><td>100</td></tr><tr><td>Procure a replacement cask lid if a negative leak rate trend is observed.</td><td>Complete</td><td>100</td></tr></table> <p>Risk Action Assessment: The fabrication and delivery of the new STS cask lid is complete. This risk is no longer realized, and poses no further threat to the project. As such, it will be removed from the spotlight chart prior to November reporting.</p>	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.	Complete	100			
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.	Complete	100																	
STP-152: Attrition, Acquisition, & Retention of Qualified Employees	Improving job markets/funding uncertainties or site wide priorities result in competition for key resources, resulting in schedule delays to the project. In addition, higher than anticipated attrition impacts project baseline costs. Risk Handling Strategy: Accept Probability: Medium (26% to 74%) Worst Case Impacts: \$500K, 36 days			<p>Risk Triggers: Due to the current job market, K Basin Operations (KBO) personnel have elected to leave the project to pursue other opportunities.</p> <table><tr><th>Mitigation action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Establish enhanced work schedule</td><td>12/31/18</td><td>25</td></tr><tr><td>Actively pursue filling open positions and train/qualify personnel.</td><td>12/31/18</td><td>--</td></tr><tr><td>Monitor employee job satisfaction to evaluate/maintain morale</td><td>Ongoing</td><td>TBD</td></tr></table> <p>Mitigation Assessment: Attrition of qualified personnel continued in October. Since the initiation of sludge removal activities in June 2018, there has been >25 percent attrition of qualified NCOs and RCTs. The loss of qualified personnel has negatively impacted achieving sludge removal schedule goals. Both operations and radiation protection management are aggressively backfilling open positions. Although training and qualification takes longer than desired, both organizations are expecting to be fully staffed to support an enhanced work shift by January 2, 2019.</p>	Mitigation action(s)	FC Date	%	Establish enhanced work schedule	12/31/18	25	Actively pursue filling open positions and train/qualify personnel.	12/31/18	--	Monitor employee job satisfaction to evaluate/maintain morale	Ongoing	TBD			
Mitigation action(s)	FC Date	%																	
Establish enhanced work schedule	12/31/18	25																	
Actively pursue filling open positions and train/qualify personnel.	12/31/18	--																	
Monitor employee job satisfaction to evaluate/maintain morale	Ongoing	TBD																	
STP-153: Sludge Engineered Container End Point Criteria	ECF-100KR2-12-0040 calculation for 105-KW substructure demolition rubble the Environmental Disposal Facility (ERDF) compliance; specifies the volume of residual sludge that is acceptable to leave in engineered containers following sludge removal operations. It is possible that the end point criteria cannot be achieved without extensive cost and schedule implications. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$200K, 64 days			<p>Risk Triggers: During execution of the sludge removal campaign, personnel have come to understand that standard methods of sludge removal are not able to efficiently achieve EC Sludge End Point Criteria.</p> <table><tr><th>Mitigation action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Perform periodic video camera inspections throughout sludge removal campaign to plan retrieval strategies.</td><td>Ongoing</td><td>N/A</td></tr><tr><td>Develop and submit DSA/TSR revisions that facilitate layering KW sludge (SCS-CON-210/220) with KE Sludge (SCS-CON-240/250/260).</td><td>1/31/19</td><td>30</td></tr><tr><td>Consider sampling heels in engineered containers to facilitate achieving end point criteria using more accurate source term.</td><td>6/30/19</td><td>5</td></tr><tr><td>Remove EC-210 lid to facilitate characterization and sampling.</td><td>12/31/18</td><td>20</td></tr></table>	Mitigation action(s)	FC Date	%	Perform periodic video camera inspections throughout sludge removal campaign to plan retrieval strategies.	Ongoing	N/A	Develop and submit DSA/TSR revisions that facilitate layering KW sludge (SCS-CON-210/220) with KE Sludge (SCS-CON-240/250/260).	1/31/19	30	Consider sampling heels in engineered containers to facilitate achieving end point criteria using more accurate source term.	6/30/19	5	Remove EC-210 lid to facilitate characterization and sampling.	12/31/18	20
Mitigation action(s)	FC Date	%																	
Perform periodic video camera inspections throughout sludge removal campaign to plan retrieval strategies.	Ongoing	N/A																	
Develop and submit DSA/TSR revisions that facilitate layering KW sludge (SCS-CON-210/220) with KE Sludge (SCS-CON-240/250/260).	1/31/19	30																	
Consider sampling heels in engineered containers to facilitate achieving end point criteria using more accurate source term.	6/30/19	5																	
Remove EC-210 lid to facilitate characterization and sampling.	12/31/18	20																	

	Unmitigated Risk Impacts	Assessment		Comments		
		Month	Trend			
RL-0012/WBS-012						
				Mitigation Assessment: A work package is being developed to remove EC-210 lid to facilitate characterization and/or sampling of heel. This information may result in accepting greater quantities of EC Sludge than previously estimated. In parallel, Engineering and Nuclear Safety personnel are preparing a safety documentation revision that will facilitate layering EC-210/220 sludge with KE Sludge.		
STP-156: Sludge Removal Campaign Impacted by Variations in Engineered Container Sludge Density/Volume	The actual mass of sludge stored in the 105KW Basin engineered containers is not consistent with the mass assumed in the SRP Technical Basis, resulting in cost and schedule delays. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$1,600K, 48 days			Risk Triggers: The actual sludge mass in the Engineered Containers (ECs) (mass = density x volume = ρ*V) is greater than the mass currently projected in source documents, resulting in the need for additional STSCs to remove & store the remaining sludge.		
				Mitigation action(s)	FC Date	%
				Revisit Sludge Removal Project Basis Documents HNF-SD-SNF-TI-015 R28, Spent Nuclear Fuel Project Technical Databook, Volume 2, Sludge, and HNF-41051 R13, STP Container and Settler Sludge Process Description and Material Balance based upon PNNL-27769, STP K Basin Sludge Sample Archive Status FY2018.	4/30/19	--
				Complete visual inspections of sludge stored in Engineered Containers SCS-CON-210/220/230 (at a minimum) to assess volume information specified in technical basis documents.	11/15/18	80
				Evaluate and implement feasible opportunities to more efficiently disposition remaining Engineered Container Sludge.	3/31/19	10
				Mitigation Assessment: No significant change in October. Project personnel are currently reviewing Sludge Removal Project Basis Documents in order to determine how the baseline project assumptions were impacted. After the final review of the documents and completion of visual inspections of sludge stored in Engineered Containers SCS-CON-210/220/230, the project will determine how to more efficiently disposition the remaining sludge.		
STP-156-C: Sludge Removal Campaign Extended Due to Discovery of High Dose Material	Additional high-dose, "sludge-like" material is discovered on the 105KW Basin floor during 100K Closure Project characterization activities that is best dispositioned with the Engineered Container Sludge Waste Stream. Adding this additional sludge material to the Sludge Removal Project (SRP) Campaign negatively impacts existing SRP cost and/or schedule baseline. Risk Handling Strategy: Accept Probability: Very Likely (>90%) Worst Case Impacts: \$500K, 24 days			Risk Triggers: As 100K Closure Project personnel conduct characterization efforts in the 105KW Basin, it is possible that additional sludge may be discovered that must be put into engineered containers and processed with the balance of the EC Sludge.		
				Mitigation action(s)	FC Date	%
				Collect and quantify the volume and weight of the high dose material in the 105 KW Basin.	12/31/18	50
				Continue to monitor conditions identified by the baseline characterization efforts.	Ongoing	N/A
				Mitigation Assessment: During the month of October, 100K Closure personnel collected and containerized (double barrel fuel canister) high-density material that will likely have to be placed into EC-230. Additionally, high-density material was located in the drain funnel of a debris sorting table that will also need to be characterized and likely added to EC-230.		
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)						
No critical risks identified in October.						
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)						
No high threat value risks identified in October.						
FY2019 Risk Triggers (Risk could be realized in FY2019)						
STP-108: STP Annex Equipment and ECRTS/Ancillary System Reliability	Required corrective maintenance on the STP Annex and the Engineered Container Retrieval and Transfer System (ECRTS) equipment is higher than planned due to one-of-a-kind system design or sludge characteristics, resulting in cost and schedule impacts. Risk Handling Strategy: Control Probability: Low (10% to 25%) Worst Case Impacts: \$400K, 66 days			Risk Triggers: Required corrective maintenance on the Sludge Removal Project and ancillary equipment is higher than planned.		

	Unmitigated Risk Impacts	Assessment		Comments																		
		Month	Trend																			
RL-0012/WBS-012																						
				<table><tr><th>Mitigation action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Conduct full-scale testing at the Maintenance and Storage Facility (MASF) facility to determine baseline for CM and PM program.</td><td>Complete</td><td>100</td></tr><tr><td>The Project will provide spare parts for critical or long-lead components.</td><td>Complete</td><td>100</td></tr><tr><td>Develop PM activities prior to construction completion to optimize maintenance costs.</td><td>Complete</td><td>100</td></tr><tr><td>Perform Reliability, Availability, and Maintainability (RAM) analysis.</td><td>Complete</td><td>100</td></tr><tr><td>Modifications to the skimmer pump and IXM pump to accommodate an alternative IXM water source.</td><td>12/31/18</td><td>25</td></tr></table> <p>Mitigation Assessment: Due to IXM system challenges (potential unavailability), an alternate water supply modification has been generated and hardware procured. Plans are to install this modification in the future to mitigate unavailability of IXM System impact on sludge removal.</p>	Mitigation action(s)	FC Date	%	Conduct full-scale testing at the Maintenance and Storage Facility (MASF) facility to determine baseline for CM and PM program.	Complete	100	The Project will provide spare parts for critical or long-lead components.	Complete	100	Develop PM activities prior to construction completion to optimize maintenance costs.	Complete	100	Perform Reliability, Availability, and Maintainability (RAM) analysis.	Complete	100	Modifications to the skimmer pump and IXM pump to accommodate an alternative IXM water source.	12/31/18	25
Mitigation action(s)	FC Date	%																				
Conduct full-scale testing at the Maintenance and Storage Facility (MASF) facility to determine baseline for CM and PM program.	Complete	100																				
The Project will provide spare parts for critical or long-lead components.	Complete	100																				
Develop PM activities prior to construction completion to optimize maintenance costs.	Complete	100																				
Perform Reliability, Availability, and Maintainability (RAM) analysis.	Complete	100																				
Modifications to the skimmer pump and IXM pump to accommodate an alternative IXM water source.	12/31/18	25																				
STP-073-C: Processing Efficiency - Retrieval & Shipping	<p>The realized processing efficiency associated with sludge retrieval and shipping operations does not match the baseline plan.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Medium (26% to 74%)</p> <p>Worst Case Impacts: \$0K, 54 days</p>			<p>Risk Triggers: Actual processing efficiency associated with sludge retrieval and shipping operations does not match baseline assumptions. This risk will continue in fiscal year (FY) 2019 during operations campaign.</p> <table><tr><th>Mitigation action(s)</th><th>FC Date</th><th>%</th></tr><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><tr><td>Revise plan to establish the appropriate campaign schedule.</td><td>12/31/18</td><td>90</td></tr></table> <p>Mitigation Assessment: No major changes in October. Project personnel completed a revised plan to establish the appropriate campaign schedule, taking into account IXM change outs and performance of preventive maintenance activities. The revised plan has been provided to RL via the FY2019 Post Contract Baseline submittal and RL is currently reviewing this plan.</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	Revise plan to establish the appropriate campaign schedule.	12/31/18	90						
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																				
Revise plan to establish the appropriate campaign schedule.	12/31/18	90																				
Unassigned Risks (Pending ownership of identified threats/opportunities)																						
No unassigned risks identified in October .																						

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	1.0	0.6	1.0	-0.4	-36.5%	-0.4	-65.2%

Numbers are rounded to the nearest \$0.1 million

CM Schedule Performance (-\$0.4M/-36.5%)

The variance is within reporting thresholds.

CM Cost Performance (-\$0.4M/-65.2%)

The variance is within reporting thresholds.

Contract-to-Date (\$M)

RL-0012 Spent Nuclear Fuel Stabilization and Disposition	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Estimate to Complete (ETC)	Variance at Completion (VAC)
Total	745.2	744.8	715.1	(0.4)	-0.0%	29.7	4.0%	762.0	731.1	16.0	30.9

Numbers are rounded to the nearest \$0.1 million

CTD Schedule Performance (-\$0.4M/-0.0%)

The variance is within reporting thresholds.

CTD Cost Performance (+\$29.7M/+4.0%)

The variance is within reporting thresholds.

Variance at Completion (+\$30.9M/+4.1%)

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	FY2019		Variance
	Projected Funding	Spending Forecast	
Expense – Spending Forecast	20.1	18.0	2.1
Incremental Scope Pending Change Management	0.0	0.0	(0.0)
Expense – Subtotal	20.1	18.0	2.1
Line Item (LI)	11.3	0.0	11.3
Incremental Scope Pending Change Management	0.0	0.0	(0.0)
LI – Subtotal	11.3	0.0	11.3
RL-0012 – Total	31.4	18.0	13.4

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis

Fiscal year (FY) 2019 funding for project breakdown structure (PBS) RL-0012 is \$31.4 million. FY2019 funding aligns with the RL Integrated Priority List (IPL). The variance primarily reflects the work scope included in the IPL that is pending authorization.

Critical Path Schedule

The project critical path schedule runs through completion of retrieval operations, including the filling of STSCs with sludge, transporting to T Plant, and placement in T Plant cell. The project is on schedule to complete Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Milestone M-016-176, Complete Sludge Removal from 105KW Fuels Storage Basin, which is due by December 31, 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.

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-016-176	Complete Sludge Removal	12/31/2019		10/30/2019	On Schedule

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS / DECISIONS

None currently identified.

Section C

Solid Waste Stabilization and Disposition (RL-0013)



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

October 2018
CHPRC-2018-10, 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 October reporting period, October 1 – 21, 2018, Waste and Fuels Management Project (W&FMP) maintained facilities in a safe and compliant condition. The River Risk Management Project operated the Environmental Restoration Disposal Facility (ERDF) and awarded the contract for structural design at the Integrated Disposal Facility (IDF).

This month:

- Management of Cesium and Strontium Capsule (MCSC) Project: The Cask Storage System (CSS) final design is with the subcontractor who is working on revision of the cask strontium (Sr) capsule cask thermal analysis and loading plan with the adjusted Hastelloy emissivity value. The Waste Encapsulation and Storage Facility (WESF) Modifications Preliminary Design Review comments are being addressed by the subcontractor, with disposition forecasted to be back the week of October 22, 2018.
- At T Plant, the sludge receipt team received the fourth shipment of sludge from the 100K West Reactor Basin to T Plant. The fifth sludge shipment is forecasted for receipt on November 1, 2018.
- In support of the W-135 Project, removal and characterization of G-Cell service plugs (four total) has been completed. At WESF, the removal of the plugs allowed measurements to be obtained for future utilities to be run from the operating gallery into G-Cell for new equipment. Canyon entries continue to prepare waste for removal ahead of canyon decontamination/painting.

EMS Objectives and Target Status (Draft)

Objective #	Objective	Target	Due Date	Status
19-EMS-WFMP-OBJ1-P1	Receive 10 STSC sludge shipments at T Plant.	T Plant Complex will receive 10 Sludge Transport & Storage Container (STSC) sludge shipments.	9/30/2019	20%
19-EMS-WFMP-OBJ2-P1	Complete and issue the Preoperational Environmental Survey for the Capsule Storage Area.	Perform sampling and analysis if needed as determined by DOE to support the preparation and issuance of the Preoperational Environmental Survey for the Capsule Storage Area (CSA). Complete and issue the preoperational Environmental Survey report for the Capsule Storage Area.	9/30/2019	50%
19-EMS-WFMP-OBJ3-P1	Complete the CSB PLC Upgrade Project to better avoid exceedance of the Air Operating Permit limits.	Complete PLC Upgrade Project field work. Complete the PLC Upgrade Project test report and final documentation.	9/30/2019	0%

Objective #	Objective	Target	Due Date	Status
19-ERDF-OBJ1-P1	Track maintenance recycling activities at ERDF.	Monitor and evaluate ERDF maintenance recycling activities for compliance with CHPRC procedures and complete annual review of recycling activities.	9/30/2019	0%

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	2	N/A
First Aid Cases	2	18	10/15/2018 – Left shoulder strain. Employee was released back to work with no restrictions. (24997) 10/22/2018 – Lower back strain. Employee was taken to HPMC for evaluation and released back to work with no restrictions. (25000)
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

Waste and Fuels Management Project

13.01 Project Management

- o Performed/Completed:
 - Updates to Solid Waste Operations Complex (SWOC) Part B Permit Modification Training Addenda for Central Waste Complex-Waste Receiving and Processing (CWC-WRAP), T Plant and Low-Level Burial Ground (LLBG) Trenches 31-34-94 to reflect Revision 9 standards and format. Provided to RL for informal Ecology review.
 - Certified supplemental figures and photographs for the 211-T Pad, 277-T Building, 271-T Cage, and 2401-W Waste Storage Building Closure Plans and submitted to RL for transmittal to Ecology.

13.02 Capsule Storage & Disposition

- o Performed/Completed:
 - Two operational drills.
 - Exterior lighting upgrades to improve visibility on walking and working surfaces.
 - W-135 Project WESF Preparations and Support:
 - Canyon entries to prepare waste for removal ahead of canyon decontamination/painting.
- o Completed Surveillances/Preventive Maintenance (PM):
 - 24 PM packages.

13.03 Canister Storage Building (CSB)

- o Performed/Completed:
 - Monthly inspections.
 - Air Handler 004 ducting upgrades.
- o Completed Surveillances/PMs:
 - 29 PM packages.

13.06 Transuranic (TRU) Repackaging

- o Repackaging:
 - Completed and returned fiscal year to date – 528.65 cubic meters of transuranic mixed (TRUM) waste.
- o **M-091-53:**
 - Fiscal year (FY) 2020 Commitment: Seven of 10 containers have been removed from Outside Storage Area A/B.
 - FY2021 Commitment: The functional design criteria and conceptual design report have been completed to support the Engineering Evaluation/Cost Analysis.

13.07 Waste Receiving and Processing (WRAP)

- o Performed/Completed:
 - 2404 WB Emergency power supply installation
 - Light repairs to WRAP parking lot.
 - Monthly inspections for WRAP.
- o Completed Surveillances/PMs:
 - 182 surveillances.
 - 10 PM packages.
- o Shipments Shipped:
 - One 1800 Top Load (TL) from 2404WB to Perma-Fix Northwest (PFNW) in one shipment.

13.08 T Plant

- o Performed/Completed:
 - Continuation with the canyon crane trolley motor measurements, crane seep repair, and high bay light replacement.
 - Supported the Department of Energy-Headquarters visit from the assistant secretary for Environmental Management.
- o Completed Surveillances/PMs:
 - 566 surveillances.
 - 19 PM packages.
- o **Sludge Receipt**
- o Performed/Completed:
 - Receipt of the fourth STSC (W-420), which was weighed and placed in cell 15L for interim storage.
- o Shipments Received:
 - One STSC from 105KW to T Plant in one shipment.

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

- o Performed/Completed:
 - The procedure validation and successfully passed the hazard review board (HRB) for the replacement of solid waste caisson high efficiency particulate air (HEPA) filters.
 - The Super 7A2 container inspection and mixed waste trench (MWT) 31 and MWT 34 leachate sampling.
 - Continuation with 2403WD and 2403WA floor repairs.
 - Support for the tour of the Carlsbad Field Office Manager.
- o Completed Surveillances/PMs:
 - 316 surveillances.

- 28 PM packages.
- o Shipments Shipped:
 - One 1800TL and one Super 7A from CWC to PFNW in two shipments.
- 13.15 TRU Disposition**
 - o Performed/Completed:
 - Enhancement of acceptable knowledge of the TRU waste streams continued.
 - Provided data input for the 2018 Container Specific Inventory report, which is forecasted to be completed December 14, 2018.
- 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:
 - 121 surveillances.
 - o Shipments Received:
 - Six boxes and four drums from PFNW into MWT 31 in two shipments.
- 13.24 Management of Cesium and Strontium Capsules Project**
 - o Performed/Completed:
 - WESF Modifications Design: The WESF Modifications Preliminary Design Review comments are being addressed by the subcontractor, with dispositions forecasted to be back the week of October 22, 2018.
- 13.25 Capsules Interim Storage Operations**
 - o Performed/Completed:
 - CSS design: The subcontract is continuing with the revision of the cask Sr capsule cask thermal analysis and loading plan with the adjusted Hastelloy emissivity value.

River Risk Management Project

13.10 Environmental Restoration Disposal Facility

- o Received 9,766 tons in October.
- o Received 22 shipments (121 tons) of Plutonium Finishing Plant (PFP) waste and used the new enhanced radiological controls during disposal operations.
- o Used the non-standard crane to offload one long length item (LLI) for disposal.

13.12 Integrated Disposal Facility (IDF)

- o Care & Custody
 - Completed October monthly inspections.
 - Completed three storm event inspections.
- o IDF Operational Readiness
 - Continued work on Part A, Security and Closure Plan addenda to support IDF Resource Conservation and Recovery Act of 1976 (RCRA) permit modifications.
 - Selected contractor to design the facility modifications and site infrastructure. Contract was awarded October 1, 2018.
 - Initiated 30 percent design for the facility modifications and site infrastructure.
 - Continued work on the IDF performance assessment documents to address DOE Low-Level Waste Disposal Facility Federal Review Group (LFRG) review comments.
 - Continued preparation of the IDF waste acceptance criteria and Waste Analysis Plan.
 - Continued work with Mission Support Alliance, LLC (MSA) to add additional property (the triangle area near the IDF entrance) for the IDF waste receiving infrastructure.
 - Initiated interface with MSA site services (electrical, sewer, raw water, and potable water) to support IDF operations.
 - Initiated an evaluation to re-categorize the IDF hazard categorization.

Project Technical Services Support

- o NR-1 Reactor surface preparation
 - Received authorization to proceed from Puget Sound Naval Shipyard.
 - Statement of work drafted and issued for functional review.
- o Performed WRAP roof repair.

MAJOR ISSUES

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. Ecology has announced that CIS comments are scheduled to be provided on November 21, 2018, and WESF changes comments are scheduled to be provided on December 24, 2018.

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 continues to await direction from RL.

Issue:

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

Corrective Action:

Significant risk remains. TRU disposition activities would prepare the contents of these containers in a configuration suitable for eventual disposal at the 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:

Continuing to use the best demonstrated available technology to provide adequate configuration and minimize the potential for contamination spread during the long-term storage (i.e., protecting boxes with tarps or protective shoring; over-packing drums). Streamlined and consolidated container management procedures. RL authorized the additional FY2019 TRU commercial repackaging, allowing shipments to PFNW for repackaging to continue throughout the year.

Issue:

TK-100 is a collection tank located underground to the south of the 225B Building and collects miscellaneous contaminated or potentially contaminated waste liquids. TK-100 has an approximate capacity of 4,000 gallons. The current volume of TK-100 is approximately 3,200 gallons. Recent sampling of TK-100 indicated a cesium (Cs)-137 sample result higher than the acceptance criteria at the Effluent Treatment Facility (ETF). As a result, disposal of the tank contents via the normal route to the ETF via tanker truck may not be possible.

Corrective Action:

Determine the most cost effective path forward for disposal of the TK-100 contents.

Status:

Discussions have been in progress with Washington River Protection Solutions LLC (WRPS) ETF personnel regarding options for acceptance of the tank liquid contents. Additionally, an analysis is in progress to determine additional options for disposal of the TK-100 contents. Planning efforts are underway to use an ion-exchange module (IXM) to reduce the Cs-137 inventory, thereby allowing shipment of the liquid to the ETF.

Issue:

On August 14, 2018, notification was received (18-AMRP-0151) informing CHPRC that RL is supportive of enhancing the operating margin for the cesium salt-metal interface temperature by increasing the number of casks (as appropriate up to 24 casks) to reduce the heat load in each individual cask, in order to bound the range of uncertainty.

Corrective Action:




CHPRC transmitted a response letter to RL in October. CHPRC will revise the Hastelloy emissivity for the Sr cask and evaluate increasing the operating margin for the Cs casks. Results of the emissivity change will be incorporated into the final design and analysis of increasing the operating margin will be completed after the CSS final design has been approved.


Status:


Analysis of the Hastelloy emissivity has been completed resulting in one additional Sr cask. Results are being incorporated into the final design.


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-0013/WBS-013																						
Explanation of major changes to the project monthly spotlight chart: Risks WSD-086, W&FM Industrial Accident or Contamination, WSD-133, Results of External Audits/Assessments Impact Operations, and WSD-W135-17, Modifications to WESF, were removed from the spotlight chart. WSD-W135-28 was merged with WSD-CSS-006, and is now being reported on as such. Based on the monthly risk assessment WSD-13B, TRU Waste Volumes or Characteristics - Processing, and WSD-097, Major Equipment Failure – T Plant, were added to the spotlight chart as a high risk threat value risks. Risk WSD-125, Multi-Year Pause in Waste Processing Results in Unexpected Container Integrity Issues, was removed from the critical risk value section and placed under the FY2019 Risk Triggers section. In addition, the FY2019 risk analysis determined that, WSD-W135-19, Unexpected Contamination is Found in the WESF Facility, WSD-W135-31, Canyon Crane non-functional/not Serviceable, WSD-CSS-002, CSS Subcontractor Change Orders & Claims, and WSD-CSS-011, Greater Than Expected Comments on CSS Design Are Received, are considered to be key risks for FY2019. These risks are now reported on under the FY2019 Risk Triggers section of the spotlight chart.																						
Realized Risks (Risks that are currently impacting project cost/schedule)																						
WSD-CSA-007: Delays in CSS Design Impact PDSA	The final development of the Preliminary Documented Safety Analysis (PDSA) is impacted due to delays in completing the CSS final design, resulting in schedule impacts to the CSA construction and CSS fabrication. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$0K, 96 days			<div>Risk Event: The CSS final design was delayed due to late identification of the need for additional shielding in the cask design due to the unique nature of the capsules. The final design is being revised to reflect a more conservative assumption for Hastelloy emissivity for the strontium capsules. Accident analysis needed to support development of the PDSA cannot be completed until the final design is complete. The PDSA development cannot complete until CSS design is complete.</div> <table><tr><th>Risk Recovery Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>CHPRC has provided draft PDSA for review and comment to internal reviewers and DOE to allow early feedback and comment incorporation.</td><td>Complete</td><td>100</td></tr><tr><td>CHPRC is working with the CSS design contractor to prioritize accident analysis needed for the PDSA development.</td><td>Complete</td><td>100</td></tr><tr><td>Complete shielding design and accompanying analysis for final design.</td><td>Complete</td><td>100</td></tr><tr><td>Review CSS final design and incorporate into PDSA.</td><td>2/18/19</td><td>-</td></tr><tr><td>Submit PDSA to DOE for approval.</td><td>5/24/19</td><td>-</td></tr></table> <div>Risk Action Assessment: No significant changes in October. CSS final design was submitted by the design contractor to CHPRC. CHPRC has conducted an in-process review of the G-Cell operational and CSS loading equipment. Revision of the final design to incorporate a more conservative Hastelloy emissivity for strontium capsules is in progress.</div>	Risk Recovery Action(s)	FC Date	%	CHPRC has provided draft PDSA for review and comment to internal reviewers and DOE to allow early feedback and comment incorporation.	Complete	100	CHPRC is working with the CSS design contractor to prioritize accident analysis needed for the PDSA development.	Complete	100	Complete shielding design and accompanying analysis for final design.	Complete	100	Review CSS final design and incorporate into PDSA.	2/18/19	-	Submit PDSA to DOE for approval.	5/24/19	-
Risk Recovery Action(s)	FC Date	%																				
CHPRC has provided draft PDSA for review and comment to internal reviewers and DOE to allow early feedback and comment incorporation.	Complete	100																				
CHPRC is working with the CSS design contractor to prioritize accident analysis needed for the PDSA development.	Complete	100																				
Complete shielding design and accompanying analysis for final design.	Complete	100																				
Review CSS final design and incorporate into PDSA.	2/18/19	-																				
Submit PDSA to DOE for approval.	5/24/19	-																				
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)																						

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: Medium (26% to 74%) Worst Case Impacts: \$1.25 million, 0 days			Risk Trigger Metric: Will continue throughout the contract (September 30, 2019).															
				<table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><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, 2019).</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></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, 2019).	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	%													
				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, 2019).	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 Assessment: No significant changes in October . 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 FY2019, which will maintain PFNW’s minimum optimization processing volumes through the remainder of the fiscal year. Based in the results from the current risk assessment, it was determined that this risk no longer carried a critical risk value. As such, it will be removed from the spotlight chart prior to November reporting. The risk will continue to be monitored internally throughout the remainder of its lifecycle.																			
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)																			
WSD-013B: TRU Waste Volumes or Characteristics - Processing	TRU waste not identified in records or higher than planned volumes due to inaccurate records or unexpected soil contamination impacts TRU processing. This waste is derived from retrieval of waste, non-compliant newly generated waste received from generators, TRU waste that is determined to be low-level and requires further treatment, or more waste is generated than in the plan, resulting in unplanned in-scope cost impacts. Risk Handling Strategy: Accept Probability: Medium (26% to 74%) Worst Case Impacts: \$2 million, 0 day			Risk Trigger Metric: A significant volume of newly generated waste is received or nonconforming waste results in the need for new capabilities.															
				<table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>None identified at this time.</td><td>N/A</td><td>N/A</td></tr></table> Mitigation Assessment: The destruction of two drums with oil from large box shipment TC158 was not performed at the offsite processing facility due to backlog. Considering options for storing or treating this waste.	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-097: Major Equipment Failure – T Plant	<p>T Plant suffers a major equipment failure (crane, primary power supply, etc.), resulting in cost impacts and schedule delays.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Low (10% to 25%)</p> <p>Worst Case Impacts: \$3 million, 96 days</p>			<p>Risk Trigger Metric: During planned facility operation activities, a suspected system component is discovered that requires attention or an unexpected malfunction results in this risk being realized. This risk will continue throughout the CHPRC (September 30, 2019) contract.</p> <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Identify and procure critical spare parts for the T Plant crane.</td><td>Ongoing</td><td>N/A</td></tr><tr><td>Implement aggressive CM/PM program.</td><td>Ongoing</td><td>N/A</td></tr></table> <p>Mitigation Assessment: No significant changes in October. The project has put into place mitigating strategies (i.e., aggressive surveillance and maintenance [S&M] activities) to help reduce this risk including the upcoming annual mechanical crane maintenance. The crane is currently operational; however, an adequate spare parts inventory is needed. The project identified spare parts for the T Plant and continues procuring critical spares. The project has received mechanical brake, motor parts, electrical parts, and spare parts. Engineering addressed quality assurance clause for the National Electrical Manufacturers Association (NEMA) MG1 standards to complete the mechanical motor parts order.</p>	Mitigation Action(s)	FC Date	%	Identify and procure critical spare parts for the T Plant crane.	Ongoing	N/A	Implement aggressive CM/PM program.	Ongoing	N/A									
Mitigation Action(s)	FC Date	%																				
Identify and procure critical spare parts for the T Plant crane.	Ongoing	N/A																				
Implement aggressive CM/PM program.	Ongoing	N/A																				
WSD-136: CWC/WRAP Components Fail	<p>CWC facilities and components may reach their end of life. These items will need to be replaced and/or repaired outside of planned funding profiles, resulting in cost impacts.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Medium (26% to 74%)</p> <p>Worst Case Impacts: \$2 million, 0 days</p>			<p>Risk Trigger Metric: Maintenance activities at CWC increase due to aging facilities.</p> <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Floor repairs, Master Documented Safety Analysis (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>1/2019</td><td>N/A</td></tr><tr><td>Conduct fieldwork for 2727W deactivation.</td><td>Complete</td><td>100</td></tr><tr><td>Conduct fieldwork for MO433 deactivation.</td><td>1/2019</td><td>10</td></tr><tr><td>Conducting doorframe replacements and electrical equipment repairs as necessary.</td><td>Ongoing</td><td>N/A</td></tr></table> <p>Mitigation Assessment: No significant changes in October. 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 FY2018 and repaired 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. Additional FACU spare parts are being obtained through the deactivation of MO433, for which the FMP is complete.</p>	Mitigation Action(s)	FC Date	%	Floor repairs, Master Documented Safety Analysis (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.	1/2019	N/A	Conduct fieldwork for 2727W deactivation.	Complete	100	Conduct fieldwork for MO433 deactivation.	1/2019	10	Conducting doorframe replacements and electrical equipment repairs as necessary.	Ongoing	N/A
Mitigation Action(s)	FC Date	%																				
Floor repairs, Master Documented Safety Analysis (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.	1/2019	N/A																				
Conduct fieldwork for 2727W deactivation.	Complete	100																				
Conduct fieldwork for MO433 deactivation.	1/2019	10																				
Conducting doorframe replacements and electrical equipment repairs as necessary.	Ongoing	N/A																				
WSD-CSA-006: Ecology Temporary Authorization contingent on 90% Design for CSA RCRA Permit Application	<p>The Washington State Department of Ecology (Ecology) will, as a pre-condition to approve the temporary authorization (TA) for CSA construction, require that the CSA 90 percent detailed design package to be incorporated into the CSA RCRA Permit Application (to issue for public comment), thereby delaying the TA and impacting the CSA construction schedule.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Very Likely (>90%)</p> <p>Worst Case Impacts: \$0, 96 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><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>None identified at this time.</td><td>N/A</td><td>N/A</td></tr></table> <p>Mitigation Assessment: 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 received a determination of incompleteness on February 13, 2018. The determination of incompleteness is primarily associated with the need for additional design information. CHPRC submitted supplemental design information for the WESF Mods and CSA to RL in May to support Ecology’s completeness 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																				
FY2019 Risk Triggers (Risk could be realized in FY2019)																						

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: Control</p> <p>Probability: Medium (26% to 74%)</p> <p>Worst Case Impacts: \$3 million, 0 day</p>			<p>Risk Trigger Metric: Degraded containers are discovered in CWC.</p> <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><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><tr><td>FY2019 overpacks planned: 200</td><td>9/25/2019</td><td>0</td></tr></table> <p>Mitigation Assessment: No significant changes in October. The project continued to perform container surveillances in October to identify container and container cover abnormalities. Twenty-five drums were 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. Furthermore, the overpack of storage box 75DMA16F3 was completed. RL authorized additional FY2019 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	FY2019 overpacks planned: 200	9/25/2019	0
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																				
FY2019 overpacks planned: 200	9/25/2019	0																				
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: No change from last month.</p> <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><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></table> <p>Mitigation Assessment: No significant changes in October. 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. DOE-HQ issued a new policy for management of Capital Asset Projects (CAP) less than \$50 million on August 31, 2018. RL is evaluating the impacts. CHPRC continues to work closely with RL on the tailoring strategy to meet the DOE O 413.3B requirements.</p> <p>Per review with the project, this risk was closed and merged with WSD-W135-05, Requirement Changes and Additions for Extend Cs/Sr Capsule Storage. However, WSD-W135-05 risk does not affect FY2019 scope and will be reevaluated for outyear planning. As such, this risk will be removed from the spotlight prior to November reporting.</p>	Mitigation Action(s)	FC Date	%	Prepare joint tailoring strategy with RL on how to meet the DOE O 413.3B requirements	Complete	100												
Mitigation Action(s)	FC Date	%																				
Prepare joint tailoring strategy with RL on how to meet the DOE O 413.3B requirements	Complete	100																				
WSD-W135-19: Unexpected Contamination is Found in the WESF Facility	<p>More contamination is found at WESF resulting in the need to clean it up to reduce worker exposure or requiring more worker protection.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Likely (75% to 90%)</p> <p>Worst Case Impacts: \$2,000K, 32 days</p>			<p>Risk Trigger Metric: During WESF preparations for equipment installation in the G-Cell, the canyon, or the truckport, contamination is found that requires decontamination. During equipment installation, contamination is encountered that requires cleanup (e.g. anchoring of equipment inside WESF causes release of contamination).</p> <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Hire additional supervisor and RAD workers to remain in compliance with stringent RAD controls.</td><td>Ongoing</td><td>N/A</td></tr><tr><td>Implement lessons learned.</td><td>Ongoing</td><td>N/A</td></tr><tr><td>Continuously utilize respiratory protection.</td><td>Ongoing</td><td>N/A</td></tr></table> <p>Mitigation Assessment: The project has begun waste preparations for removal from the canyon and no excessive contamination has been discovered thus far.</p>	Mitigation Action(s)	FC Date	%	Hire additional supervisor and RAD workers to remain in compliance with stringent RAD controls.	Ongoing	N/A	Implement lessons learned.	Ongoing	N/A	Continuously utilize respiratory protection.	Ongoing	N/A						
Mitigation Action(s)	FC Date	%																				
Hire additional supervisor and RAD workers to remain in compliance with stringent RAD controls.	Ongoing	N/A																				
Implement lessons learned.	Ongoing	N/A																				
Continuously utilize respiratory protection.	Ongoing	N/A																				

WSD-W135-31: Canyon Crane non-functional/not Serviceable	The existing WESF crane was put back into limited usage for the W-130 Project; however, the crane is found to be unserviceable, cannot be repaired for use, or fails during the W-135 operational activities. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$300K, 96 days			Risk Trigger Metric: The canyon crane fails during use or cannot be returned to service after maintenance. <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Perform preventative/corrective maintenance procedures (i.e. replacement of the wire rope and hook) on the crane early to identify corrective maintenance issues.</td><td>9/30/19</td><td>40</td></tr><tr><td>Procure critical spares.</td><td>9/30/21</td><td>0</td></tr><tr><td>Procure new crane hook and block.</td><td>9/30/18</td><td>100</td></tr><tr><td>Refurbish current crane block.</td><td>9/30/20</td><td>0</td></tr></table> Mitigation Assessment: Refurbishment of the crane is in process. If full refurbishment is unsuccessful, replacement of the canyon crane as a like-for-like is not possible, as the original crane manufacturer is no longer in business. A similar replacement hook and block have been procured.	Mitigation Action(s)	FC Date	%	Perform preventative/corrective maintenance procedures (i.e. replacement of the wire rope and hook) on the crane early to identify corrective maintenance issues.	9/30/19	40	Procure critical spares.	9/30/21	0	Procure new crane hook and block.	9/30/18	100	Refurbish current crane block.	9/30/20	0
Mitigation Action(s)	FC Date	%																	
Perform preventative/corrective maintenance procedures (i.e. replacement of the wire rope and hook) on the crane early to identify corrective maintenance issues.	9/30/19	40																	
Procure critical spares.	9/30/21	0																	
Procure new crane hook and block.	9/30/18	100																	
Refurbish current crane block.	9/30/20	0																	
WSD-CSS-002: CSS Subcontractor Change Orders & Claims	The CSS construction contractor submits excessive change orders and claims, resulting in schedule delays and increased subcontractor cost. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$2,900K, 24 days			Risk Trigger Metric: The CSS construction contractor will fabricate CSS equipment under a fixed price contract. If changes to the design are found to be necessary during fabrication, change orders may be submitted by the fabricator. <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Bid award will be based on best value approach to allow selection of the best qualified contractor. Contractor selection will be handled by formal evaluation processes to ensure scope is understood and estimated correctly.</td><td>Complete</td><td>100</td></tr><tr><td>Scope of each task will be reviewed prior to initiation to ensure contractor is in alignment for the upcoming work. Contractor oversight is accomplished via weekly interface meetings and trips to the contractor's location for face-to-face interface meetings.</td><td>Ongoing</td><td>N/A</td></tr></table> Mitigation Assessment: Fabrication of CSS equipment is not planned until FY2020 and the final design review is scheduled to occur in fiscal month November.	Mitigation Action(s)	FC Date	%	Bid award will be based on best value approach to allow selection of the best qualified contractor. Contractor selection will be handled by formal evaluation processes to ensure scope is understood and estimated correctly.	Complete	100	Scope of each task will be reviewed prior to initiation to ensure contractor is in alignment for the upcoming work. Contractor oversight is accomplished via weekly interface meetings and trips to the contractor's location for face-to-face interface meetings.	Ongoing	N/A						
Mitigation Action(s)	FC Date	%																	
Bid award will be based on best value approach to allow selection of the best qualified contractor. Contractor selection will be handled by formal evaluation processes to ensure scope is understood and estimated correctly.	Complete	100																	
Scope of each task will be reviewed prior to initiation to ensure contractor is in alignment for the upcoming work. Contractor oversight is accomplished via weekly interface meetings and trips to the contractor's location for face-to-face interface meetings.	Ongoing	N/A																	
WSD-CSS-011: Greater than Expected Comments on CSS Design are Received	The CSS design receives more comments than originally expected, resulting in schedule delays. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$600K, 48 days			Risk Trigger Metric: CSS final design review comment resolution exceeds the time planned due to volume or difficulty in comments. <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>CHPRC will provide recommendations for comment resolution, minimizing the effort to respond.</td><td>4/30/19</td><td>0</td></tr><tr><td>CHPRC will work closely with NAC during comment resolution to ensure all comments are understood.</td><td>4/30/19</td><td>0</td></tr></table> Mitigation Assessment: The CSS final design review is on schedule and will commence in November.	Mitigation Action(s)	FC Date	%	CHPRC will provide recommendations for comment resolution, minimizing the effort to respond.	4/30/19	0	CHPRC will work closely with NAC during comment resolution to ensure all comments are understood.	4/30/19	0						
Mitigation Action(s)	FC Date	%																	
CHPRC will provide recommendations for comment resolution, minimizing the effort to respond.	4/30/19	0																	
CHPRC will work closely with NAC during comment resolution to ensure all comments are understood.	4/30/19	0																	
Unassigned Risks (Pending ownership of identified risks/opportunities)																			
No unassigned risks identified in October.																			

PROJECT BASELINE PERFORMANCE

Current Month (CM)

(\$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	9.3	8.8	9.2	(0.5)	-5.5%	(0.4)	-4.4%

Numbers are rounded to the nearest \$0.1 million

CM Schedule Performance (-\$0.5M/-5.5%)

The CM unfavorable schedule variance is primarily associated with late processing and return of shipment TC180 (32.6m3, -\$325K). TC180 was planned for shipment to an offsite processing facility on October 2, 2018, but was delayed to mid-October due to the availability of resources to make the road closure and shipment. As a result, the processing by the offsite facility and the return of the waste was not completed in this period. In addition, resource availability to plan and prepare for Test Pit excavation activities contributed to the CM variance (-\$136K). Reviews of the abandoned water line drawings were scheduled to commence this period, but were delayed due to concentrated efforts for the WESF modification preliminary design review. As a result, the apportioned project management support was unable to take progress as planned. Additionally, there was a delay in awarding the contract for the IDF structural modifications design (-\$62K).

CM Cost Performance (-\$0.4M/-4.4%)

The CM cost variance is within threshold.

Contract-to-Date (CTD)

(\$M)

WBS 013/RL-0013 Waste and Fuels Management Project	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Estimate to Complete (ETC)	Variance at Completion (VAC)
Total	1,352.8	1,352.0	1,257.1	(0.8)	-0.1%	94.9	7.0%	1,562.0	1,465.2	208.1	96.8

Numbers are rounded to the nearest \$0.1 million

CTD Schedule Performance (\$-0.8M/-0.1%)

The CTD schedule variance is within threshold.

CTD Cost Performance (+\$94.9M/+7.0%)

The CTD favorable cost variance is a result of 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&FMP; 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 the 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&FMP; and eliminating the separate waste forecast system by integrating forecasting as part of the baseline process and the Solid Waste Inventory Tracking System (SWITS). The cost variance is also partially due to significant credits from the transportation and disposal of other Hanford contractor waste at ERDF.

Variance at Completion (+\$96.8M/+6.2%)

The favorable VAC variance is a result of 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&FMP; 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&FMP; and eliminating the separate waste forecast system by integrating forecasting as part of the baseline process and SWITS. Significant credits from the transportation and disposal of other Hanford contractor waste at ERDF, as well as the optimization of ERDF project resources, also contribute to the variance at completion.

Contract Performance Report Formats are provided in Appendix A

FUNDS vs. SPEND FORECAST (\$M)

WBS 013/RL-0013	FY2019		Variance
	Projected Funding	Spending Forecast	
Waste Stabilization & Disposition	173.5	162.1	11.4
Management of Cesium and Strontium Capsules (Line Item)	6.6	2.4	4.3
Incremental Scope Pending Change Management	0	2.2	(2.2)
RL-0013 – Total	180.1	166.7	13.5

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis

The FY2019 projected funding level for project baseline summary (PBS) RL-0013 of \$180.1 million is based on the RL integrated priority list (IPL). The \$13.5 million variance primarily reflects work scope included in the IPL that is pending authorization. The \$2.2 million Incremental Scope Pending Change Management reflects Project W-135 out-year scope that inadvertently pulled back into FY2019, due to schedule adjustments made to address cask emissivity and temperature margin. The schedule will be adjusted in fiscal month November, pushing the scope back into the out-years, reducing the incremental scope value.

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

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-091-53	Submit Milestone Change Request to Replace Target Dates for Capabilities to Process TRUM Waste	12/31/2018		12/12/2018	On schedule
M-026-07D	Evaluation of Tritium Treatment Technology to EPA and Ecology	3/31/2019		3/31/2019	On schedule
C-026-07M	Submit Tritium Treatment Technology Developments to Ecology and EPA	3/31/2019		3/31/2019	On schedule
M-091-03M	Submit Revision of TRUM Waste and MLLW PMP to Ecology	6/30/2019		6/30/2019	On schedule
M-091-52-T01B	Remove 10 Additional Mixed Waste Containers from Outside Storage Area A and/or B	11/30/2019		1/17/2019	On schedule

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

Contract Section	Project	GFS/I	Status
CONTRACT			
J.12/C.2.2, C.2.3	<p>PBS-RL-0011, Plutonium Finishing Plant Closure Project</p> <p>PBS-RL-0013, Solid and Liquid Waste Treatment and Disposal</p>	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 compliance with DOE Manual 460.2-1. 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)	12/30/2018
Retrieve RSW EE/CA for CH & RH – RL Complete Review of Draft Document	1/9/2019	2/7/2019
CSS Final Design – RL Direction to Implement Impacts of Operating Margin increases per RL: 18-AMRP-0151	3/27/2019	4/9/2019
CSA CD2/3 – RL: Review/Approve PDSA (1 st FY)	5/9/2019	9/6//2019
CSA CDs/3 – Office of Enterprise Assessments Review/Approve PDSA (1 st FY)	5/9/2019	9/6/2019

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

October 2018
CHPRC-2018-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

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

PROJECT SUMMARY

Pump and Treat (P&T) Operations continued making progress on the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) remedial process documentation for the River Corridor and Central Plateau. Groundwater treatment completed in October 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	28	28	2.9	2.9						
HX P&T	25.2	25.2	2.3	2.3						
KR-4 P&T	11.0	11.0	0.2	0.2						
KW P&T	13.1	13.1	0.6	0.6						
KX P&T	35.5	35.5	2.2	2.2						
200 West P&T	89.5	89.5	9.0	9.0	175.0	175.0	.19x10 ¹²	.19x10 ¹²	5.4	5.4
Combined	202.3	202.3	17.2	17.2	175.0	175.0	.19x10¹²	.19x10¹²	5.4	5.4
FY2019 KPG	--	1,800.0	--	150.0	--	1,450.0	--	N/A	--	120

Well Drilling by Area	FY2019 Planned	Current Month	FY2019 Cumulative
100-KR-4	2	0	0
100-HR-3	9	0	0
200-BP-5	4	0	0
200-UP-1	3	0	0
200-ZP-1	5	0	0
M-24 Milestone	5	0	0
100-F/IU	6	0	0
Total Wells	34	0	0
Site Wide Boreholes	9	0	0

EMS Objectives and Target Status (Draft)

Objective Action Plan #	Objective	Due Date	Status
19-EMS-SGRP-OBJ1-P1	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.	7/31/2019	25%
19-EMS-SGRP-OBJ2-P1	Installation and testing of a HDPE pipeline between Modular Storage Units (MSU) and the 200 West Pump and Treat. Objective will eliminate the need to truck the MSU water to the pump and treat (P&T) and thereby reduce greenhouse gas emissions and other waste production from vehicle use.	12/31/2018	50%

Objective Action Plan #	Objective	Due Date	Status
19-EMS-SGRP-OBJ3-P1	Use of electronically completed Groundwater Sampling Reports (GSR) in FLEDGE 3.0. This will lead to a reduction in paper use and waste through completion and record storage of GSRs electronically.	9/30/2019	0%

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	22	10/25/2018 – Employee fell while descending platform stairs, striking the mid-upper back area. The individual reported to HPMC and returned to work with no restrictions. (25002)
Near-Misses	0	0	NA

KEY ACCOMPLISHMENTS

River Corridor

300-FF-5 OU

- Initiated weekly groundwater and periodically rewetted zone sample collection at the Stage B Sequestration site. The monitoring data will help determine the effectiveness of the uranium sequestration that completed in September.
- Initiated preparation of the Stage B Uranium Sequestration Installation Report.

100-HR-3 OU

- Submitted the Decisional Draft Waste Management Plan (WMP) to RL on October 15, 2018, for final comment resolution.

Central Plateau

200-UP-1 OU

- Submitted the Draft A Central Plateau Groundwater Tracer Study Sampling Analysis Plan (SAP) to RL on October 17, 2018, for regulator review.

200-BP-5/200-PO-1 Revision 0 OU

- Completed comment resolution meeting with RL on October 4, 2018. Received additional RL and informal regulator comments on the Decisional Draft 200-BP-5/200-PO-1 Feasibility Study on October 15, 2018 and scheduled a second meeting for October 30, 2018. Reviewed the feasibility study cost estimates with RL on October 17, 2018, and discussed RL's preferred alternative.

- Completed a 200-BP-5 Drilling SAP comment resolution meeting with the regulators on October 16, 2018.

200-ZP-1 OU

- Received Environmental Protection Agency (EPA) approval for TPA-CN-0832 and TPA-CN-0833 for injection well YJ-35/C9879/699-47-78B and extraction well YE-33/C9988/699-48-70 drilling and sampling requirements for fiscal year (FY) 2019 installation.

200-EA-1

- Continued making progress on completion of the Remedial Investigation/Feasibility Study (RI/FS) Work Plan (WP) and SAP:
 - o Resolved 16 of the 30 Ecology comments and 10 of the 15 EPA comments received on the 200-EA-1 Draft A WP and SAP.
 - o Received Ecology white paper on October 10, 2018, discussing the infiltration rate to be used for the 200-EA-1 WP and SAP.
 - o Provided RL with proposed resolutions for the 36 Yakama Nation comments on October 12, 2018.
 - o Submitted white paper to RL on October 16, 2018, on polychlorinated biphenyls (PCB)/congener issue.
 - o Received Ecology's revised Inter-Agency Management Integration Team (IAMIT) agreement form on the ProUCL issue on October 17, 2018.

Project Technical Services Accomplishments

- Training and Procedures
 - o Worked with facility subject matter experts (SMEs) to develop "Attention to Detail" briefing materials. The goal of this effort is to respond to the rising number of administrative errors experienced by the project in the recent months.
 - o Developed and conducted a "Cultural Sensitivity at 300-FF-5" presentation. The information is required for nuclear chemical operators (NCO) working in a specific area of the 300 Area to ensure that culturally significant artifacts and areas are not disturbed.
 - o Implemented changes to 2WPT-PRO-OP-7241, *HMI Operation and Alarm Response*, and 2WPT-PRO-OP-7246, *BOP Mechanical/ Electrical Lineup*, in support of operational acceptance tests (OATs) for new wells YJ33 and YJ34.
- Operations Program
 - o ConOps/Work Control/Conduct of Work
 - Determined appropriate methods for entering and modifying items in the Job Control System Component Index.
- Project Delivery
 - Commenced YE32 HDPE mobilization and road-crossing work at 200-BP-5.
 - o Modutanks
 - Completed laying, bonding and line flush of high-density polyethylene.
 - Completed six of six road crossings.
 - Completed final tie-ins at 200 West P&T.
 - o Construction completion document (CCD) signed and turned over to operations.

Modular Storage Units (MSUs)

- The available water storage at the MSUs is 1,100,000 gallons as of October 21, 2018.

- Completed planning discussions in October and initiated sampling/chlorination to use the MSU pipeline in November, pending acceptable weather, to pump up to 500,000 gallons to the 200 West P&T facility.

Groundwater P&T Facilities

- Overall, the P&T systems operated above target as depicted in the P&T performance graph below.

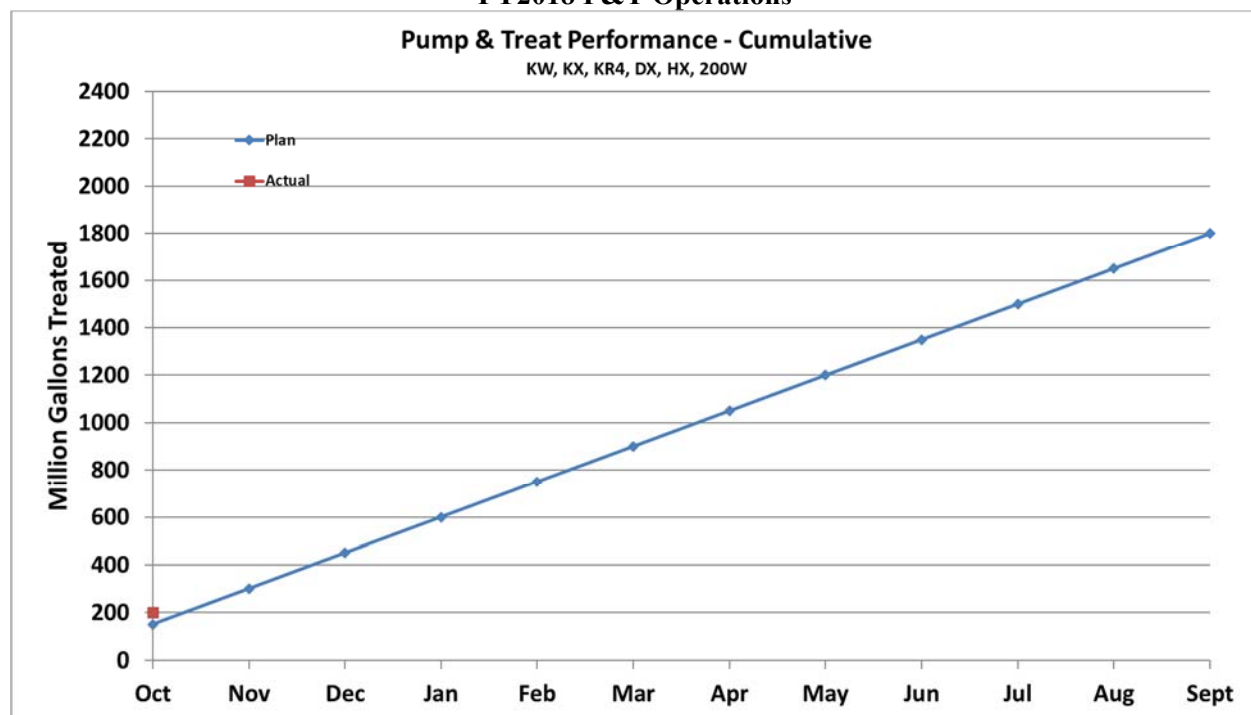
200 West P&T

- Operated the 200 West P&T at an average of 2,004 gallons per minute (gpm) in October. Completed conversion of injection transfer building 2, main line B piping to stainless steel.

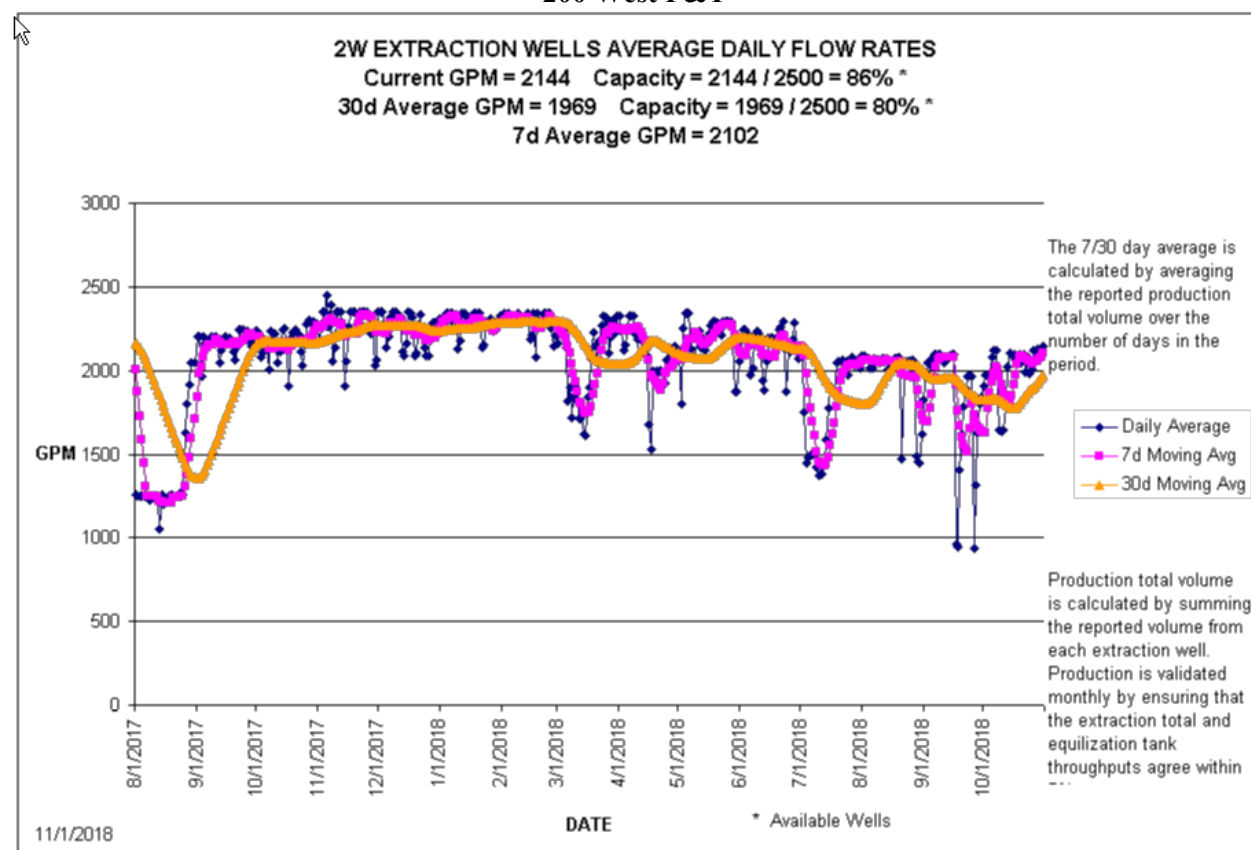
100 Area P&Ts

- Operated the DX P&T at 628 gpm, below the facility capacity of 775 gpm.
- Operated the KR-4 P&T at 247 gpm, below the facility capacity of 330 gpm.
- Operated the KW P&T at 294 gpm, below the facility capacity of 330 gpm.
- Operated the KX P&T at 794 gpm, below the facility capacity of 900 gpm.
 - Completed transfer Building 1 stainless steel piping conversion.
 - Completed re-connection and operations acceptance testing of extraction wells XE5 and XE8.
- Operated the HX P&T at 565 gpm, below the facility capacity of 900 gpm.

FY2018 P&T Operations



200 West P&T






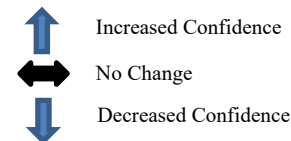
MAJOR ISSUES



None.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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



Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
RL-0030/WBS-030										
Explanation of major changes to the project monthly spotlight chart: <i>Risk SGW-ZP1-02: ZP1 - Well Re-Alignment Design differs from Planning Assumptions was added to the risk spotlight chart</i>										
Realized Risks (Risks that are currently impacting project cost/schedule)										
No realized risks identified in <i>October</i> .										
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)										
No critical risks identified in <i>October</i> .										
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)										
SGW-ZP1-02: ZP1 - Well Re-Alignment Design Differs from Planning Assumptions	The final design for a given well realignment or connection exceeds the planning assumptions, resulting in cost impacts.			Risk Trigger Metric: Planning assumption quantities are exceeded or design maturity changes material type, requiring additional material and labor to complete the scope.						
	Risk Handling Strategy: Accept			<table><tr><th>Mitigation action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>None identified at this time.</td><td>N/A</td><td>N/A</td></tr></table>	Mitigation action(s)	FC Date	%	None identified at this time.	N/A	N/A
	Mitigation action(s)			FC Date	%					
None identified at this time.	N/A	N/A								
Probability: Very Likely (>90%) Worst Case Impacts: \$1,512K, 16 days	Mitigation Assessment: Although the risk is accepted, the project will work diligently to see design solutions that are the most cost effective.									
FY2019 Risk Triggers (Risk could be realized in FY2019)										
No FY19 risk triggers identified in <i>October</i> .										
Unassigned Risks (Pending ownership of identified risks/opportunities)										
No unassigned risks identified in <i>October</i> .										

PROJECT BASELINE PERFORMANCE

Current Month

(\$M)

RL-0030 Soil and Groundwater Remediation	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	6.4	6.2	6.3	(0.2)	-3.9%	(0.1)	-2.3%

Numbers are rounded to the nearest \$0.1 million.

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

The current period negative schedule variance is within reporting thresholds.

CM Cost Performance (-\$0.1M/-2.3%)

The current period negative cost variance is within reporting thresholds.

Contract-to-Date

(\$M)

RL-0030 Soil and Groundwater Remediation	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Estimate to Complete (ETC)	Variance at Completion (VAC)
Total	1,533.1	1,532.8	1,480.3	(0.3)	0.0%	52.6	3.4%	1,713.2	1,659.7	179.4	53.5

Numbers are rounded to the nearest \$0.1 million.

CTD Schedule Performance (-\$0.3M/+0.0%)

The contract to date negative schedule variance is within reporting thresholds.

CTD Cost Performance (+\$52.6M/+3.4%)

The contract to date positive cost variance is within reporting thresholds.

Variance at Completion (+\$53.5M/+3.1%)

The variance at completion is within reporting thresholds.

Contract Performance Report Formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST (\$M)

FY2018			
RL-0030 Soil and Groundwater Remediation	Projected Funding	Spending Forecast	Variance
Spending Forecast	132.9	124.6	8.3
Incremental Scope Pending Change Management	0.0	4.5	(4.5)
RL-0030 –Total	132.9	129.1	3.8

Numbers are rounded to the nearest \$0.1 million

Funds/Variance Analysis

The FY2019 projected funding for project breakdown structure (PBS) RL-0030 is \$132.9 million. The fiscal year spending forecast of \$129.1 million includes actions anticipated to achieve funding targets. FY2019 funding aligns with the RL Integrated Priority List (IPL). The variance primarily reflects the work scope included in the IPL that is pending authorization.

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 Hanford Federal Facility Agreement and Consent Order enforceable milestones, non-enforceable target due dates, and commitments.

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
Milestones on Schedule					
M-015-21A	Submit 200 BP-5 & 200 PO-1 OU FS Report and PP(s) to Ecology	3/31/2019		3/15/2019	On Schedule
M-024-58L	Initiate Discussions of Well Commitments	6/1/2019		6/1/2019	On Schedule
M-024-70-T01	Conclude Discussions of Well Commitments Initiated Under M-024-58	8/1/2019		7/31/2019	On Schedule
Milestones at Risk					
M-015-93C	Initiate Characterization Field Work for 200-SW-2 Operable Unit Landfills	10/31/2018		TBD	Dispute resolution initiated on July 9, 2018 (18-AMRP-0135).

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-015-98	Complete Remedial Investigation of U Plant Related Waste Sites Located in 200-WA-1	6/30/2019		TBD	At Risk. Work not funded in FY2019.
M-085-70	Submit to Ecology a Remedial Investigation/Feasibility Study WP for 200-CB-1	9/30/2019		TBD	At Risk. Work not funded in FY2019.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL Submit Regulatory Review Draft LLBG WMA-3 to Ecology	8/27/2018 (A)	10/31/2018
RL Review Decisional Draft B Revision 1 200-ZP-1 RD/RAWP	9/19/2018 (A)	10/31/2018
RL Review 200-ZP-1 PMP Draft B Rev 1	9/20/2018 (A)	10/31/2018
RL Review Decisional Draft B Revision 1 200-ZP-1 O&M Plan	9/25/2018 (A)	11/7/2018
RL Provide Comments on Decisional Draft 200-PO-1 OU Groundwater Monitoring SAP	9/25/2018 (A)	10/25/2018
RL Review 100-NR-2 Decisional Draft B Remedial Investigation	9/27/2018 (A)	12/24/2018
RL Transmit 200-EA-1 RI/FS WP Revision 0 to Regulators	11/27/2018	12/4/2018
RL Submit Revision 0 100-BC-5 RI/FS Report to Regulators	11/29/2018	1/23/2019
RL Transmit Draft IDF Engineering Evaluation Report to Ecology for Review	12/2/2018	12/3/2018
RL Approve 200-EA-1 RI/FS WP	12/4/2018	9/3/2019
RL to Issue Proposed Plan for Public Review	12/3/2018	1/15/2019
RL Approve the 100-BC-5 RI/FS	12/3/2018	1/23/2019
RL Submit Revision 0 100-BC-5 Proposed Plan to Regulators	12/3/2018	1/23/2019
RL Review of 100-KR-4 RD/RAWP Revision	12/6/2018	1/5/2019
RL Review of 100-KR-4 ESD	1/14/2019	2/13/2019
RL Review of 100- HR-3 Drilling SAP	1/31/2019	3/2/2019

Section E

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



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

October 2018
CHPRC-2018-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

M. A. Wright
Vice President for
Project Technical
Services

PROJECT SUMMARY

The Temporary Authorization (TA) to begin stabilization at Plutonium Uranium Extraction Plant (PUREX) Tunnel 2 was received from the Department of Ecology on Friday, September 28, 2018. Grout placement commenced on October 1, 2018, and placed 6,969 cubic yards in October. The Surveillance and Maintenance (S&M) group continued to perform Reduction and Oxidation Plant (REDOX) Canyon entries to assess the current conditions.

EMS Objectives and Target Status (Draft)

Objective #	Objective	Target	Due Date	Status
19-EMS-CPRM-OBJ-P1	Increase EMS awareness	Present or facilitate a discussion of EMS topics to personnel on a minimum of four different occasions in fiscal year (FY) 2019 and recruit personnel (other than environmental) to participate in at least two compliance review/programmatic walk downs.	9/30/2019	0%

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	1	N/A
First Aid Cases	1	7	10/3/2018 – Employee was crawling on knees pulling up floors. Right knee swelled up toward the end of the shift. Went home and it became even more swollen and painful to the touch. Employee was taken to HPMC the next day and was released without restriction. (24987)
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

RL-0040 Accomplishments

Central Plateau Risk Management Project Surveillance and Maintenance (CPRM S&M)

- Performed radioactive material area consolidation and housekeeping at B Plant and PUREX.
- Performed REDOX Canyon entry recovery and release of equipment.
- Received additional equipment to support REDOX Canyon entries.
- Completed annual PUREX high efficiency particulate air (HEPA) filter aerosol tests.
- Completed annual PUREX exhaust system stack flow test.
- Performed As Low As Reasonably Achievable Control Technology surveys at B Plant.

- Delivered B Plant and PUREX stack samples to the 222-S Laboratory.
- Received mobile office trailer (MO-6114) and began installing in the 200 East area.

B Plant Pre-filter and HEPA Filter Change-out

- Performed B Plant ACT-002 pre-filter recovery and ACT-001 pre-filter change-out preparations.

PUREX Tunnel 2 Stabilization Project

Project Technical Services (PTS) Support

- Received TA from Ecology allowing for interim stabilization on September 28, 2018, and began placing grout October 3, 2018.
- Placed approximately 6,969 cubic yards of grout by October 21, 2018.
- Released freeze protection plan for the grout conveyance system and incorporated boom draining at end of shift.
- Grouting activities are being performed on a five day, 10-hour work schedule to mitigate potential winter weather related impacts.

REDOX Canyon Risk Mitigation

- Completed installation of light strings inside of the REDOX silo floors 1 – 8 (life safety upgrades).
- Completed submittal and approval of north door reactivation package to Hazard Review Board.
- Completed approval of work package for electrical hookup of REDOX climate controlled connex boxes.
- Completed several walk downs for planning powder removals and pipe draining in the REDOX silo.
- Began training on the use of remote controlled robot for entry into high radiological hazard areas.
- Practiced use of reach tools for deployment of AMP-100 monitoring equipment over crane way platform shielding wall.
- Installed barriers to prohibit migration of water that has entered the building through the east roof line.
- Commenced roof repair statement of work (SOW).
- Commenced airflow analysis and planning for entry into REDOX silo sixth floor and seventh floor backside areas.
- Commenced procurement SOW for facility exhausters.
- Continued investigatory entries into the REDOX Canyon crane maintenance platform and craneway to perform re-lamping of lighting, commence engineering structural investigation and detailed waste documentation.
- Continued transition of personnel to Sr 90 bioassay requirements.
- Commenced beryllium sampling in the REDOX Canyon.

Steamline Removal

- Completed crossover removals in seven locations within the 200 West Area.

242 B&BL Demo

- Completed initial planning and entry assessments.

MAJOR ISSUES

Issue

During the past 12 months, the rate of radiological and foreign material buildup on both pre- and primary filter media at B Plant has exceeded historical trends. In the past year, the ventilation pre-filters have

been replaced three times, as opposed to previous years with replacements only every 18 to 24 months. Additionally, debris collected on filter media indicate corrosion upstream of the filters.

Corrective Action

Perform B Plant Canyon entries to investigate elevated radiological dose rates.

Status

Five entries have been made in B Plant Canyon. The exhaust fans were slowed to mitigate contamination of pre-filters. Awaiting sample analysis results from 222-S Laboratory. Continued the engineering evaluation to determine potential solutions for B Plant filter build up. Replacement of the B Plant pre-filters commenced in October 2018.

Issue

On January 11, 2018, Department of Ecology Nuclear Waste Program performed a Dangerous Waste Compliance Inspection at B Plant. During their review of the “2017 B Plant Complex Annual Surveillance Issue List,” it was noted in the B Plant 221-B “Issue” column, “White residue on the floor (not new).” In addition, the “issue” column also noted “Expansion joint crack, white residue on floor.” As a result of these observations, Ecology has requested that within 90 days upon receipt of the compliance report, designation results of the white residue on the floor of the Canyon Building, 221-B pipe, and operating gallery be submitted.

Corrective Action

RL and CHPRC, with legal representation, have met to establish a path forward.

1. Perform a records search to determine when the white powder was first identified.
2. During upcoming entries, as part of the annual surveillance, data (photos and description of surroundings) will be obtained and evaluated to determine if it is sufficient to support designation based on process knowledge.
3. Actual cost information associated with sampling and analysis of the white powder at PUREX will be used to develop a cost estimate for sampling and analysis of the white powder at B Plant.
4. The PUREX Sample Analysis Plan (SAP) will be revised to support sampling and analysis of the white powder in the event that it is determined as part of item number 2 that process knowledge is not sufficient to support designation.
5. If sampling is required to support designation, CHPRC will determine if designation can be accomplished in the required 90-day period, and notify RL if an extension is needed.

Status

RL is developing an integrated strategy to address white residue in PUREX and B Plant.

Issue

On September 25, 2018, an entry into the REDOX Canyon was performed for the first time since 1997. During the entry, significant combustible loading (liquid and solid) throughout the canyon was discovered.

Corrective Action

Fire Protection Engineering (FPE) will evaluate as-found condition against National Fire Protection Association (NFPA) requirements for combustible material loading.

Status

On-going.

RISK MANAGEMENT STATUS

Unassigned Risk

Risk Passed

New Risk

Change



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



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



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







Increased Confidence







No Change



Decreased Confidence

Risk Title	Unmitigated Risk Impacts	Assessment		Comments																																					
		Month	Trend																																						
RL-0040/WBS-040																																									
Explanation of major changes to the project monthly spotlight chart: Risk REDOX-05, <i>Collapse of Sand Filter</i> , was added to the spotlight chart as a critical risk. Risks PRXT-S2-001, <i>Unexpected Contamination Event</i> , and PRXT-S2-009, <i>Resources Unavailable</i> , were added to the spotlight chart as fiscal year (FY) 2019 Risk Triggers based on the FY2019 Risk Analysis.																																									
Realized Risks (Risks that are currently impacting project cost/schedule)																																									
D4-042: Unexpected Site Conditions - D4	Unexpected site conditions are encountered during Deactivation, Decommission, Decontamination, and Demolition (D4) activities that result in recovery actions, causing unplanned, in-scope work, and schedule delays to the project. Risk Handling Strategy: Control Probability: Likely (75% to 90%) Worst Case Impacts: \$0K, 300 day			<p>Risk Event: The B Plant ventilation system was shut down due to elevated differential pressure readings in the ACT-002 filter bank. Upon initial investigation, it was determined that the pre-filters were saturated with water and there was standing water within the ACT-001 filter bank. The result of this unexpected occurrence is that the pre-filters and HEPA filters in the ACT-002 bank, and presumably the pre-filters and the HEPA filters in the ACT-001 filter bank, need to be replaced prior to startup of the B Plant ventilation system. Unexpected radiological contamination identified within/outside the containment tent used to initiate the pre-filter change out resulted in delays to the pre-filter replacement. 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.</p> <table><tr><th>Risk Recovery action(s)</th><th>Risk Date</th><th>FC Date</th><th>%</th></tr><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">August 2016</td><td>Complete</td><td>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>Complete</td><td>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>Complete</td><td>100%</td></tr><tr><td>Execute pre-filter and HEPA filter change out.</td><td>Complete</td><td>100%</td></tr><tr><td>Repair tents and perform second pre-filter change out in ACT-001 and ACT-002 filter banks.</td><td>November 2017</td><td>Complete</td><td>100%</td></tr><tr><td>Perform dose rate monitoring of pre-filters in ACT-001 and ACT-002 filter banks.</td><td>January 2018 – Current</td><td>Ongoing</td><td>N/A</td></tr><tr><td>Order and receive additional materials (e.g., tents, bags) to support additional pre-filter replacement.</td><td>February 2018</td><td>Complete</td><td>100%</td></tr><tr><td>Develop revision to pre-filter change out work package to improve ALARA and general efficiency.</td><td>February 2018</td><td>Complete</td><td>100%</td></tr><tr><td>Complete site setup and replace pre-filters.</td><td>May 2018</td><td>Complete</td><td>100%</td></tr></table> <p>Recovery Action Assessment: No major changes in October. The replacement of the pre-filters was completed in June. Daily (M-Th) dose rate surveys are being performed on the pre-filter banks to track the increasing dose rates. Investigative entries into B Plant were performed and sampling of the B Plant filter media was sent offsite for analysis.</p> <p>Based on the risk elicitation for the FY2019 risk analysis, the D4 risks were broken out based on the location of the work. As such, this risk was closed and will be removed from the spotlight chart prior to November month end reporting.</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	Complete	100%	Develop revision to pre-filter change out work package to improve ALARA and general efficiency.	February 2018	Complete	100%	Complete site setup and replace pre-filters.	May 2018	Complete	100%
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	Complete	100%																																						
Develop revision to pre-filter change out work package to improve ALARA and general efficiency.	February 2018	Complete	100%																																						
Complete site setup and replace pre-filters.	May 2018	Complete	100%																																						
PRXT-S2-012: Excessive Comments from Regulators	Comments from RL or other regulators on documents submitted for approval (e.g. proposed plans, permits) are excessive, need multiple rounds of resolution, or change requirements resulting in increased			<p>Risk Event: The approved Resource Conservation and Recovery Act (RCRA) permit modification was not issued in July as originally planned allowing start of PUREX Tunnel 2 grouting activities. Ecology has requested additional information on the degradation/corrosion discovered under the PUREX Tunnel 2 Riser 16 during the camera investigation.</p>																																					

Risk Title	Unmitigated Risk Impacts	Assessment		Comments																		
		Month	Trend																			
RL-0040/WBS-040																						
	<p>schedule and labor requirements; causing cost and schedule impacts to the project.</p> <p>Risk Handling Strategy: Transfer</p> <p>Probability: Medium (26% to 74%)</p> <p>Worst Case Impacts: \$750K, 90 day</p>			<table><tr><th>Risk Recovery Action(s)</th><th>Risk Date</th><th>FC Date</th><th>%</th></tr><tr><td>Issue final structural analysis of PUREX Tunnel #2 corrosion.</td><td>July 2018</td><td>Complete</td><td>100</td></tr><tr><td>DOE issue TA to proceed with PUREX Tunnel 2 grouting activities.</td><td>August 2018</td><td>Complete</td><td>100</td></tr></table> <p>Recovery Action Assessment: The CHPRC Project Technical Services (PTS) engineering team performed a structural analysis of the corrosion under PUREX Tunnel 2 Riser 16 and submitted a white paper to Ecology. The information was presented by CHPRC at public hearings held by Ecology in review of the RCRA permit modification. The public comment period commenced August 13 with a duration of 45 calendar days. The TA to allow for interim stabilization was issued by Ecology on September 28, 2018.</p> <p>This risk was closed, as it no longer poses a threat to the project. A TA was issued, and grouting was started. As such, this will be removed from the stoplight chart prior to November reporting.</p>	Risk Recovery Action(s)	Risk Date	FC Date	%	Issue final structural analysis of PUREX Tunnel #2 corrosion.	July 2018	Complete	100	DOE issue TA to proceed with PUREX Tunnel 2 grouting activities.	August 2018	Complete	100						
Risk Recovery Action(s)	Risk Date	FC Date	%																			
Issue final structural analysis of PUREX Tunnel #2 corrosion.	July 2018	Complete	100																			
DOE issue TA to proceed with PUREX Tunnel 2 grouting activities.	August 2018	Complete	100																			
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)																						
REDOX-05: Collapse of Sand Filter	<p>Due to the close proximity of equipment driving by (cranes, forklifts for waste load-out, steam lines), age, and structural integrity, the project experiences a collapse of a sand filter, resulting in cost and schedule impacts to the project.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Very Low (<10%)</p> <p>Worst Case Impacts: \$260K, 48 day</p>			<table><tr><th>Mitigation action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Establish project boundary.</td><td>December 2018</td><td>50%</td></tr><tr><td>Use bracing when digging.</td><td>Not digging yet</td><td>0%</td></tr><tr><td>Implement communication plan between Other Hanford Contractor (OHC) and other CHPRC projects.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Engineering to conduct structural integrity and equipment stand-off evaluations.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Follow the critical lift process and hoisting and rigging manual.</td><td>Ongoing</td><td>NA</td></tr></table> <p>Mitigation Assessment: The project is working to ensure that the steam line removal efforts consider sand filters while planning. The project has been in communication with the 222-S Labs about future work scope at REDOX. Engineering has also been involved in structural evaluations of the sand filters. These evaluations will be used for establishing an equipment stand-of distances. Additionally, discussions for the initial planning of the critical lift process has started.</p>	Mitigation action(s)	FC Date	%	Establish project boundary.	December 2018	50%	Use bracing when digging.	Not digging yet	0%	Implement communication plan between Other Hanford Contractor (OHC) and other CHPRC projects.	Ongoing	NA	Engineering to conduct structural integrity and equipment stand-off evaluations.	Ongoing	NA	Follow the critical lift process and hoisting and rigging manual.	Ongoing	NA
Mitigation action(s)	FC Date	%																				
Establish project boundary.	December 2018	50%																				
Use bracing when digging.	Not digging yet	0%																				
Implement communication plan between Other Hanford Contractor (OHC) and other CHPRC projects.	Ongoing	NA																				
Engineering to conduct structural integrity and equipment stand-off evaluations.	Ongoing	NA																				
Follow the critical lift process and hoisting and rigging manual.	Ongoing	NA																				
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)																						
No high risk threat value risks in October.																						
FY2019 Risk Triggers (Risk could be realized in FY2019)																						
PRXT-S2-009: Resources Unavailable	<p>Other higher CHPRC priority work results in reallocation of resources, improving job markets, funding uncertainties, or bump and roll result in competition for key resources. In addition higher than anticipated attrition impacts project cost.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Low (10% to 25%)</p> <p>Worst Case Impacts: \$102K, 64 day</p>			<table><tr><th>Mitigation action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Conduct FTE analysis and identify corrective actions to ensure adequate resource profiles.</td><td>Ongoing</td><td>N/A</td></tr></table> <p>Mitigation Assessment: The project is currently evaluating their need to backfill chronic staff absences, in addition to sequencing activities to allow for shift work.</p>	Mitigation action(s)	FC Date	%	Conduct FTE analysis and identify corrective actions to ensure adequate resource profiles.	Ongoing	N/A												
Mitigation action(s)	FC Date	%																				
Conduct FTE analysis and identify corrective actions to ensure adequate resource profiles.	Ongoing	N/A																				
Unassigned Risks (Pending ownership of identified risks/opportunities)																						
No unassigned risks identified in October.																						

PROJECT BASELINE PERFORMANCE

Current Month

(\$M)

WBS 040/ RL-0040 Nuclear Facility D&D	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	3.4	5.4	4.8	2.0	60.3	0.6	11.7

Numbers are rounded to the nearest \$0.1 million

CM Schedule Performance: (+\$2.0M/+60.3%)

The current month (CM) positive schedule variance is mainly attributed to PUREX Tunnel 2 stabilization activities. Grout placement started three months ahead of schedule due to receiving TA (\$2,434K). The baseline reflects a start date of December 3, 2018, following the issuance of the revised RCRA permit from Ecology. The positive variance is partially offset by delays in cleanup of the REDOX North Sample Gallery due to the discovery of materials found during the canyon investigative entry (\$406K).

CM Cost Performance: (+\$0.6M/+11.7%)

The current month positive cost variance is mainly attributed to PUREX Tunnel 2 due to underruns on the grout contract. Change orders incurred are significantly less than the planned 20 percent of the total contract value (approximately \$700K). In addition, 242 B/BL Demo realized subcontractor efficiencies during the initial entry assessment and planning phase of the project.

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	495.1	497.2	472.6	2.0	0.4	24.5	4.9%	575.8	552.7	80.1	23.1

Numbers are rounded to the nearest \$0.1 million

Cost to Date (CTD) Schedule Performance: (\$2.0M/0.4%)

The CTD schedule variance is within reporting thresholds.

CTD Cost Performance: (+\$24.5M/+4.9%)

The CTD cost variance is within reporting thresholds.

Variance at Completion (+\$23.1M/+4.0%)

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	
RL-0040 Spending Forecast	97.4	69.3	28.1
Numbers are rounded to the nearest \$0.1 million.			

Funds/Variance Analysis

FY2019 funding for project breakdown structure (PBS) RL-0040 is \$97.4 million. FY2019 funding aligns with the RL Integrated Priority List (IPL). The variance primarily reflects the work scope included in the IPL that is pending authorization.

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 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-016-250D	Submit to Ecology a 3-Year Rolling Prioritized Schedule to Implement Waste Site Removal Actions	3/31/2019		3/31/2019	On schedule
M-016-256	Complete Removal of All Waste Sites for FY2019 as Updated/Modified in M-16-17-01	9/30/2019		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) Removal Action Work Plan (RAWP) (2017-34) to RL for Review	8/16/2017 (A)	9/30/2019
202A (PUREX) Draft B Engineering Evaluation/Cost Analysis (EE/CA) Ecology Review	12/11/2017 (A)	12/31/2018
REDOX RAWP (2017-06) Draft A Environmental Protection Agency (EPA) Review	3/15/2018 (A)	11/30/2018
REDOX SAP (2017-05) Draft C EPA Review	4/11/2018 (A)	11/30/2018
Tier 2 Misc. (B Plant North) Sampling Analysis Plan (SAP) (2017-47) EPA Review	4/17/2018 (A)	12/31/2018
Tier 2 Misc. Fac. (B Plant North) RAWP (2016-50) Ecology Review	5/2/2018 (A)	12/31/2018
REDOX Action Memorandum (AM) (2016-52) Regulator Approve Rev. 0	6/21/2018 (A)	10/31/2018

Section F

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



R. M. Geimer
Vice President for
K Basin Operations

October 2018
CHPRC-2018-10, 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 100-K-47:1; continued preparations to return to excavate Waste Site 116-KE-2, pending successful completion of the Hazard Review Board; and continued characterization activities in K West Basin. The 324 Building Disposition Project installed the roughing filter in D-Cell, which will allow the use of the remote operation impact device (ROID) seal breaker lifting device, and completed the C-Cell foundation investigation, which supports structural design activities.

EMS Objectives and Target Status (Draft)

Objective #	Objective	Target	Due Date	Status
19-EMS-324BDP-PLAN-01	Increase Environmental Management System (EMS) awareness	Present or facilitate a discussion of EMS topics to 324 Building Disposition Project personnel on a minimum of five different occasions in fiscal year (FY) 2019 and recruit personnel from 324 Building Disposition Project organizations (other than environmental) to participate in at least five compliance review/programmatic walk downs.	9/30/2019	0%
19-EMS-KBOPR-OBJ1-P1	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.	9/30/2019	8%

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	25	10/31/2018 – Employee injured hand while tightening a drill casing. It was determined that the employee had an injury resulting from repetitive motion, was taken to HPMC, and released to work without restrictions. (25006)
Near Misses	0	2	

KEY ACCOMPLISHMENTS

K Basin Operations

- 100K Closure Project:
 - o 100K Soil Remediation:
 - Completed work package development for waste site 116-KE-2 radioactive crib removal.

- Continuing excavation and loadout of Waste Site 100-K-47:1 (excavation is approximately 32 percent complete).
- Continuing Waste Site 100-K-13 verification sample collection data analysis and discussions with RL and U.S. Environmental Protection Agency (EPA).
- Resolved RL comments on Waste Site 100-K-94 Remaining Waste Site Verification Package and submitted to EPA for review and closure approval.
- Implemented CHPRC buffer zone standard in the 100K Container Transfer Area.
- o K West Basin Deactivation:
 - Garnet Filter Media Removal System (GFMRS):
 - GFMRS integrated testing is complete. The system remains in place for vetting any additional changes to the draft operating procedures.
 - Revision of ECR-16-000999 for installation of the GFMRS equipment in K West Basin is complete and continues in final signature cycle. Completed GFMRS process equipment installation construction aid document. Approved and released the integrated test and the risk-mitigation test reports.
 - Nuclear Safety continues to evaluate the GFMRS preliminary hazard analysis (PHA) to determine whether any changes are required.
 - Completed fabrication of Sludge Transport and Storage Container (STSC) vessels 425, 426, 427, and 428, to be utilized for sand and garnet filter media interim storage at T Plant and delivered the vessels to the site.
 - Garnet Filter Number 3 Sluice Outlet Valve V-305 air operator was removed, a manual operator installed, and the valve partially opened by Apollo Construction. Work instructions will be prepared to verify that Valve V-305 opens fully and shuts properly using the manual operator installed by Apollo.
 - Sand Filter Media Removal System (SFMRS):
 - Completed the environmental screening, and the as low as reasonably achievable (ALARA) design review checklist. The SFMRS PHA is approximately 80 percent complete and is expected to be finalized by the end of October.
 - Initiated an update to the design requirements document.
 - K West Basin Below-Water Debris Characterization:
 - Suspended sparging and collection of K West Basin Center Bay high-dose material due to the need to change-out Skimmer System IXM-4. The plan going forward is for 100K Operations to use IXM-4 for sludge removal operations. A change has been made to the Integrated Water Treatment System so that IXM-1, 2 and 3 can be used for high-dose material sparging and collection, and basin characterization work.
 - Progressed discussions with 100K engineering regarding functional design criteria for fabrication of the Vertical Pipe Casings (VPC) to be used to segregate below-water suspect transuranic (TRU) debris.
 - Initiated discussions with 100K engineering regarding disposition of Transfer Cask Assembly Number 1.
 - Maintenance and Storage Facility engineers progressed development of the prototype Processing Unit for Found Fuel for fuel to be used for specimen conditioning.
- o Ancillary Facility Deactivation & Demolition (D&D):
 - Initiated 166KE Fuel Storage Basin (FSB)/Waste Site 130-KE-2 D&D/soil remediation planning.
 - o 100K engineering measured FSB liquid levels and is preparing preliminary volume calculations.
 - o Insulators mobilized to perform asbestos removal in the Fuel Oil Transfer Pump Room.
 - Provided EPA drafts of DOE/RL-2005-26, *RAWP for 100K Reactor and Ancillary Facilities* and supporting AMP for review.

- Prepared draft Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Change Notice for Action Memo in support of DOE/RL-2005-26 scope changes.
- o Remaining Closure Operations:
 - Revegetation contractor to continue development of pre-start submittals and arrange training as necessary.
 - Finalized Tri-Party Agreement change notice for interim stabilization barrier installation and sent to DOE and EPA for review.

River Risk Management Project

- 324 Building Disposition Project
 - o Equipment Procurement and Fabrication
 - Continued the design and fabrication of the 324 Building Disposition Project shielded probe collimator, rad assay, waste box shielding, floor saw, cell dams, water delivery, and heating, ventilation, and air conditioning (HVAC) snorkels.
 - o Cell Cleanout
 - Performed airlock entry and completed rad survey on the A-Cell crane door. The surveys support preparation for needed repairs.
 - Prepared crew and manlift and completed A-Cell crane door inspection.
 - Removed two fuel racks from B-Cell walls on (removal of the racks is a prerequisite to installation of the remote excavator arm (REA) through supports in B-Cell.
 - Moved cart and modified track section into the Cask Handling Area in preparation for airlock installation.
 - Completed the project's 75th manned entry into the airlock in support of cell cleanout.
 - o Facility Preparations
 - Completed installation of the southeast REA through support assembly.
 - Continued demolition and continued cleanup of the Sample Loadout (SLO) Room. This included performing decontamination on the remaining glove box and chute, and removing the remaining steel from the glove box.
 - Completed core drill into A-Cell for future camera installation, and set up to core drill the southwest REA through support.
 - Began core drilling on the southwest corner for the REA through support with two of three holes completed.
 - o Structural Modifications
 - Completed C-Cell foundation investigation scanning to confirm spacing of rebar which confirmed design assumptions.
 - Began micropile drilling on the south side of the 324 Building.
 - Completed the micropile testing for the performance/creep test on the north side of the 324 Building.
 - Initiated drilling activities at the Pit 6 Soil Stabilization Demonstration and Verification site and began grout testing.
 - o Mockup/Readiness
 - Received one 324 Building REA hydraulic power unit for testing.
 - Continued remote equipment operator qualification and proficiency training.
 - Started equipment familiarization and installation practice for 324 cameras and lights systems.
 - o Tours
 - Conducted mockup tours for the media, the Hanford Advisory Board and DOE-HQ.
 - Toured University of Washington Public Health students through the mockup.

Project Technical Support

- Training and Procedures
 - o Worked with 324 Certified Industrial Hygienist (CIH) to complete an Industrial Hygiene Engineering Assessment (IHEA) for use of wire rope lubricants, established less than 50 percent occupational exposure limit (OEL).
- Operations Program – ConOps/Work Control/Conduct of Work
 - o Performed walk down of 300 Mockup for Lockout/Tagout (LOTO) of REA during work in B-Cell pit.
 - o Prepared and published Installed Personnel Contamination Monitor (iPCM)-12 calibration procedure for new PCMs.
 - o Discussed use of controls in work packages skill-based vs. beyond skill-based.
- Operations Program - Emergency Preparedness (EP)
 - o Conducted 324-EPDE-100918 Evaluated Full Up Drill for drill credit for FY2018.
 - o Completed 324 Annual Drill Plan for FY2019.

MAJOR ISSUES

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: Risk 100K-SR-05: Unexpected Site Conditions was removed from the spotlight chart. The additional design support and contaminated material quantities was incorporated into the FY2019 baseline. Risk RCC-300-296-02: 300-296 Loss of ventilation in the 324 hot cells or Zone II was removed from the spotlight chart. All mitigation actions have been completed and the risk no longer carries a “critical” risk threat value. Risk RCC-300-296-07: 300-296 Failure of a REC Cranes (B-Cell, A-Cell, A-D & Airlock, or CHA cranes) was moved from the “critical” risk section to the “high” threat value section to align with the current FY2019 qualitative assessment. Risk RCC-300-296-15: 300-296 Cell sealing, interference removal and/or core drilling takes longer than planned was added to the “high” threat value section based on the risks revised FY2019 qualitative assessment. Risk RCC-300-296-01: Latent Conditions Impact Facility Modification was moved from the “critical” risk section to the FY2019 risk trigger section. The risk currently does score a “critical” threat value based the FY2019 qualitative assessment; however, the risk was identified by both the project and the FY19 Annual Risk Analysis as a key FY2019 risk.													
Realized Risks (Risks that are currently impacting project cost/schedule)													
RCC-300-296-08: 300-296 Failure of Cell Shield Door	Failure of shield door(s) or crane shield door(s) shuts down cleanout of REC Cells/Airlock, penetration sealing in Airlock, equipment installation, and other activities for remote soil removal. It may not be possible to repair a shield door due to radiation dose rate and location, resulting in cost and schedule delays. Risk Handling Strategy: Accept Probability: Likely (75% to 90%) Worst Case Impacts: \$460K, 96 days			<table><tr><th>Recovery Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Airlock Entry Recovery from A-Cell Crane Door Malfunction</td><td>7/10/2018</td><td>100</td></tr><tr><td>A-Cell Crane Door Malfunction Recovery</td><td>12/19/2018</td><td>Ongoing</td></tr></table>	Recovery Action(s)	FC Date	%	Airlock Entry Recovery from A-Cell Crane Door Malfunction	7/10/2018	100	A-Cell Crane Door Malfunction Recovery	12/19/2018	Ongoing
				Recovery Action(s)	FC Date	%							
				Airlock Entry Recovery from A-Cell Crane Door Malfunction	7/10/2018	100							
				A-Cell Crane Door Malfunction Recovery	12/19/2018	Ongoing							
Risk Event: Recovery Assessment: No major changes in October. A-Cell crane door became restricted from closing, prohibiting airlock entry. No personnel were affected. Airlock operations were delayed for three weeks while technical response teams deliberate planning actions and evaluations were performed in advance of successfully closing the A-Cell crane door. A-Cell debris cleanout operations will be impacted while the A-Cell crane door is repaired. Recovery continues to progress, as the A-Cell crane door inspection and surveys were performed to support preparation for needed repairs.													
RCC-300-296-30: 300-296 Design Changes Result in Increased Subcontractor Change Order(s) / Claims	Structural modifications estimate is currently based on the vendor’s estimate as of the 30 percent design. The 60 percent design through initiation of 90 percent design and testing of the currently identified 324 Building structural modifications to support design are ongoing. Due to the uncertainty and evolution of developments, design changes may be required upon completion of all design phases. Risk Handling Strategy: Control Probability: Very Likely (>90%) Worst Case Impacts: \$3,318K, 136 days			<table><tr><th>Recovery Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Contractor Prepare and Submit Structure Modification Design -30%-60% (VE2810)</td><td>8/15/2018</td><td>100</td></tr><tr><td>Contractor Prepare and Submit Structure Modification Design (VN1220)</td><td>1/7/2019</td><td>37.5</td></tr></table>	Recovery Action(s)	FC Date	%	Contractor Prepare and Submit Structure Modification Design -30%-60% (VE2810)	8/15/2018	100	Contractor Prepare and Submit Structure Modification Design (VN1220)	1/7/2019	37.5
				Recovery Action(s)	FC Date	%							
				Contractor Prepare and Submit Structure Modification Design -30%-60% (VE2810)	8/15/2018	100							
				Contractor Prepare and Submit Structure Modification Design (VN1220)	1/7/2019	37.5							
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. Recovery Assessment: No major changes in October. The 30 percent to 60 percent Structural Modification Design was submitted on August 15, 2018. The review process for the 90 percent submittal is ongoing to support development of the Final Structural Modification Design. To reduce the potential impacts associated with conflicting drawing information, applicable design efforts were updated to encompass further analysis of cell footings, load limitations, and field demonstrations to ensure safe and successful completion. Additional efforts through progress on the 60 percent design activities have been incorporated into the field execution schedule, along with the estimate to complete (ETC), to reflect impacts of risk being realized.													

RCC-300-296-03: Mockup Testing and Qualification of Remote Equipment/ Process Identifies Major Modification Requirements.	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. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$773K, 80 Days			Risk Event: During Vendor FAT and/or mockup testing, 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 supports and dummy post assemblies) and transfer mechanism (electrical components). <table><tr><th>Recovery action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Perform Construction Acceptance Test (CAT) for Mockup Equipment Install - Cameras and Lighting; REA system with HPUs; Transfer Mechanism (VE0640)</td><td>8/23/2018</td><td>100</td></tr><tr><td>Install Floor Saw & Support System (VN1020)</td><td>2/20/2019</td><td>-</td></tr></table> Recovery Assessment: Construction Acceptance Testing (CAT) for remotely operated mockup equipment procurements was completed in August. Integrated Testing of Remotely Operated Equipment at the mockup was completed in September. However, interferences with nearby equipment/tools was discovered, leading to modifications. The remainder of miscellaneous supporting equipment is scheduled to arrive at the Mockup over the upcoming periods. Once installed, successful integration with Remotely Operated Equipment, through testing and training at the mockup will continue with preparations for 324 Building equipment. Impacts have been incorporated into the project schedule, along with the ETC, to reflect further impacts of risk being realized.	Recovery action(s)	FC Date	%	Perform Construction Acceptance Test (CAT) for Mockup Equipment Install - Cameras and Lighting; REA system with HPUs; Transfer Mechanism (VE0640)	8/23/2018	100	Install Floor Saw & Support System (VN1020)	2/20/2019	-
Recovery action(s)	FC Date	%											
Perform Construction Acceptance Test (CAT) for Mockup Equipment Install - Cameras and Lighting; REA system with HPUs; Transfer Mechanism (VE0640)	8/23/2018	100											
Install Floor Saw & Support System (VN1020)	2/20/2019	-											
100K-KWB-102: KW Basin – Resources Unavailable	Other higher CHPRC priority work results in reallocation of key resources (Rad Planners, RCTs, IH and NCOs), results in cost and schedule delays as projects compete for key CHRPC resources. Risk Handling Strategy: Accept Probability: Low (10% to 25%) Worst Case Impacts: \$15K, 16 Days			Risk Event: 100K Closure Project soil remediation and basin characterization work is experiencing a shortage of radiation control technicians, radiation control engineers, radiation control work planners, and radiation control first line managers. <table><tr><th>Recovery action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>The project continues to work with labor relations and central radiation protection management to fill needed positions.</td><td>Ongoing</td><td>Ongoing</td></tr></table> Recovery Assessment: Ongoing	Recovery action(s)	FC Date	%	The project continues to work with labor relations and central radiation protection management to fill needed positions.	Ongoing	Ongoing			
Recovery action(s)	FC Date	%											
The project continues to work with labor relations and central radiation protection management to fill needed positions.	Ongoing	Ongoing											
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)													
No critical risks identified in October .													
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)													
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: Accept Probability: Likely (75% to 90%) Worst Case Impacts: \$1,561K, 208 days			Risk Trigger Metric: REC crane failure occurs during operations. <table><tr><th>Mitigation action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Order and Procure Spare Parts – REC Cranes</td><td>11/15/2018</td><td>Ongoing</td></tr></table> Mitigation Assessment: No major changes in October . 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 reviewing evaluations and recommendations with manufacturers to assist with determining preventive maintenance, spare parts requirements, and corrective maintenance in the event of necessary repairs. These efforts are expected to reduce the potential for impacts.	Mitigation action(s)	FC Date	%	Order and Procure Spare Parts – REC Cranes	11/15/2018	Ongoing			
Mitigation action(s)	FC Date	%											
Order and Procure Spare Parts – REC Cranes	11/15/2018	Ongoing											
RCC-300-296-15: 300-296 Cell sealing, interference removal and/or core drilling takes longer than planned	Unexpected field conditions encountered during interference removal, sealing of cell penetrations, and/or core drilling work scope. The unexpected field conditions subsequently cause in-scope unplanned work and result in schedule impacts to the project. Risk Handling Strategy: Control Probability: Very Likely (>90%) Worst Case Impacts: \$145.8K, 90 days			Risk Trigger Metric: The project experiences unexpected field conditions outside their control that make cell sealing, interference removal and core drilling more difficult than planned. <table><tr><th>Mitigation action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Perform Core Drilling and Shield Plug Installation (VN1200)</td><td>4/4/2019</td><td>Ongoing</td></tr></table> Mitigation Assessment: No major changes in October . A majority of core drilling interferences have been identified as the project progresses with drilling necessary at the 324 Building in advance of installation of soil remediation equipment. The remaining core drilling efforts are planned to be completed over the upcoming periods. Due to the uniqueness involved with work scope, there exists the	Mitigation action(s)	FC Date	%	Perform Core Drilling and Shield Plug Installation (VN1200)	4/4/2019	Ongoing			
Mitigation action(s)	FC Date	%											
Perform Core Drilling and Shield Plug Installation (VN1200)	4/4/2019	Ongoing											

				potential for unexpected delays and additional Core Drilling efforts.						
FY2019 Risk Triggers (Risk could be realized in FY2019)										
RCC-300-296-01: Latent Conditions Impact Facility Modification	Latent conditions, poor visibility in Radiochemical Engineering Complex (REC) cells, or drawing omissions, inconsistencies, or errors impact facility modifications (e.g. mechanical, electrical IH/RADCON hazards), resulting in unplanned work and subsequently, cost and schedule impacts. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$294.5K, 256 days			Risk Trigger Metric: Available drawings may not reflect the actual conditions in the 324 Building or REC cells. Debris within the REC cells, as well as poor visibility may prevent the verification of in-cell features for installing penetrations, removing interferences and supporting preparation activities for structural modifications.						
				<table><tr><th>Mitigation action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Perform routine preventative maintenance activities</td><td>Ongoing</td><td>N/A</td></tr></table>	Mitigation action(s)	FC Date	%	Perform routine preventative maintenance activities	Ongoing	N/A
				Mitigation action(s)	FC Date	%				
Perform routine preventative maintenance activities	Ongoing	N/A								
Mitigation Assessment: No major changes in October . Uncertainties associated with aging 324 Building systems (e.g., stack sampling), sealing penetrations, and electrical outages needed for interference removal, there exists a potential for this risk to be realized. Based on recent discovery of an elevated latent contamination level (NOC, CHPRC-1801178); corrective actions have been implemented along with additional controls. This risk will continuously be monitored as routine preventative maintenance activities are in place to reduce the likelihood of occurrence.										
Unassigned Risks (Pending ownership of identified risks/opportunities)										
RCC-300-296-04DOE: 300-296 Seismic Event (Force Majeure)	A “Force Majeure” incident, such as a 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 spotlight 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 spotlight 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 spotlight 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	7.9	6.0	7.7	(1.9)	-23.5%	(1.7)	-28.0%

Numbers are rounded to the nearest \$0.1 million

CM Schedule Performance (-\$1.9M/-23.5%)

The current month unfavorable schedule variance is primarily due to delays in 324 Building Disposition Project procurements due to a change in the project's execution strategy. Additionally, cell sealing and core drilling activities in the 324 Building were delayed because of limited resource availability due to crews performing FY2018 carryover interference removal scope not contained in the FY2019 baseline.

CM Cost Performance (-\$1.7M/-28.0%)

The current month unfavorable cost variance is primarily due to additional subcontractor costs at the 324 Building Disposition Project in support of work scope that has pushed into FY2019 from FY2018 (i.e. interference removal, 324 Building design for structural modifications). Because this scope is not in the FY2019 baseline, no performance could be taken in the current period, while actual costs were realized.

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	599.7	596.2	536.9	(3.4)	-0.6%	59.4	10.0%	718.3	658.0	121.2	60.3

Numbers are rounded to the nearest \$0.1 million

CTD Schedule Performance (-\$3.4M/-0.6%)

The contract-to-date schedule variance is within reporting thresholds.

CTD Cost Performance (+\$59.4M/+10.0%)

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 and usage based services 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. These favorable variances are slightly offset by a negative CTD variance caused by challenges at the 324 Building Disposition Project in execution of cell and airlock cleanout, higher-than-planned engineering costs resulting from mockup, 324 structural design changes, and increased expenditures for the design and fabrication of essential procurements.

Variance at Completion (+\$60.3M/+8.4%)

The 100K Closure positive variance at completion (VAC) is primarily due to labor; fewer resources have been supporting the level of effort (LOE) program management and usage based services scope. Some resources have been diverted to other priority work scope, and some resource-sharing has occurred. 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	FY2019		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	132.7	116.6	16.1
Incremental Scope Pending Change Management	0.0	0.0	0.0
RL-0041 - Total	132.7	116.6	16.1

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis:

The FY2019 projected funding for project breakdown structure RL-0041 is \$132.7 million. The projected funding includes carryover from FY2018 and new budget authority. The spending forecast is based on the FY2019 performance measurement baseline annual update submitted to RL with updates through October 2018. FY2019 funding aligns with the RL Integrated Priority List (IPL). The variance primarily reflects the work scope included in the IPL that is pending authorization

Critical Path Schedule:

Critical Path Analysis can be provided upon request.

MILESTONE STATUS

Tri-Party Agreement milestones represent significant events in project execution. RL Enforceable Agreement (EA) milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. 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	Forecasted Date	Status/ Comment
M-016-85A	Complete Remote Excavation of 300-296 Waste Site	9/30/2019	10/07/2020	At risk for meeting due date.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL Approve SNR	10/1/2018 (A)	10/25/2018
RL In-Process Review of 324 DSA/TSR	10/16/2018 (A)	10/29/2018
RL Perform 60 percent Design Review	10/18/2018 (A)	11/7/2018
RL Authorize SPA SEC for Soils – 300-296	10/26/2018	12/24/2018
EPHA Draft – RL Review	11/1/2018	11/15/2018
RL Certify Information – RL Manager Letter to Ecology (1301,1325)	11/12/2018	11/15/2018
Review DSA/TSR Revision	11/16/2018	1/4/2019
Ecology Receive the Certified CHPRC and RL Information (1301, 1325)	11/17/2018	11/17/2018
Class 1 Prime Modification RL Certification send Class 1 Prime to Ecology for Action to close 1301-N and 1325-N	11/22/2018	11/25/2018
Deliver Attachment(s) and Certification(s) to RL (1301, 1325)	11/27/2018	11/27/2018
EPHA Final – RL Approval	12/6/2018	12/20/2018
RL Independent Structural Modification Review	12/28/2018	1/26/2019
RL Authorize SPA SEC for Hot Cell Disposal	1/2/2019	3/1/2019
Provide Comments on DSA/TSR in RCR	1/5/2019	1/14/2019
Concur on DSA/TSR Revision Comment Resolution	1/17/2019	1/30/2019
Prepare DSA/TSR Revision SER	1/31/2019	2/2/2019
SRB Review SER for DSA/TSR Revision	2/21/2019	2/27/2019
Issue SER for 324 DSA/TSR	2/28/2019	3/6/2019
RL Review WCH-539, Treatment Plan for Macro Encapsulation - 324	3/31/2019	4/29/2019

Section G

Fast Flux Test Facility Closure (RL-0042)



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

October 2018
CHPRC-2018-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

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

EMS OBJECTIVES AND TARGET STATUS

None currently identified.

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

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

KEY ACCOMPLISHMENTS

RL-0042 Accomplishments

- Completed draft work instructions and Acceptance Test Plan for replacing the C-670 fire control panel and routed for design authority (DA) review and comment.
- Finished preparing 400 Area circuit verification Engineering Change Request (ECR) to document discrepancies between the system drawings and actual configuration of the 400 Area electrical system. ECR was routed for review and approved.
- Started incorporating updates from the approved 400 Area circuit verification ECR into another ECR that will be used to support final installation of the P-16 pump.

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 work package (WP) to physically verify 400 Area electrical circuits for water utility equipment has been developed, and the verification has been completed. A new ECR has been drafted to document necessary changes to drawings based on observations made during the field verifications.

Status:

The circuit verification ECR was approved in October. This issue is closed.

RISK MANAGEMENT STATUS

No key risks currently identified.

PROJECT BASELINE PERFORMANCE

Current Month

(\$M)

RL-0042 FFTF Closure	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	0.1	0.1	0.1	0.0	0.0%	(0.0)	-11.4%

Numbers are rounded to the nearest \$0.1M

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

The schedule variance is within reporting thresholds.

CM Cost Performance: (-\$0.0M/-11.4%)

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	26.6	26.6	22.1	(0.0)	-0.0%	4.5	16.9%	28.2	23.7	1.6	4.5

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 (+\$4.5M/+16.9%)

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

Variance at Completion (+\$4.5M/+16.0%)

The Variance at Completion reflects efficient use of resources to support deactivation activities.

Contract Performance Report Formats are provided in Appendix A.

FUNDS VS. SPEND FORECAST (\$M)

RL-0042 FFTF Closure	FY2018		
	Projected Funding	Spending Forecast	Variance
RL-0042 Spending Forecast	4.3	2.0	2.3

Numbers are rounded to the nearest \$0.1 million

Funds Analysis

Fiscal year (FY) 2019 funding for project breakdown structure (PBS) RL-0042 is \$4.3 million. The spending forecast of \$2 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



October 2018
CHPRC-2018-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

CONTRACT PERFORMANCE REPORT

FORMAT 1 - WORK BREAKDOWN STRUCTURE

FORM APPROVED
OMB No. 0704-0188

1. CONTRACTOR						2. CONTRACT						3. PROGRAM						4. REPORT PERIOD								
a. NAME CH2M HILL Plateau Remediation Company						a. NAME Plateau Remediation Contract						a. NAME Plateau Remediation Contract						a. FROM (YYYYMMDD) 2018 / 10 / 01								
b. LOCATION (Address and ZIP Code) Richland, WA						b. NUMBER RL14788						b. PHASE						b. TO (YYYYMMDD) 2018 / 10 / 21								
						c. TYPE CPAF						d. SHARE RATIO						e. 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 832,810			d. TARGET PROFIT/FEE 241,605			e. TARGET PRICE 5,830,563			f. ESTIMATED PRICE 6,593,488			g. CONTRACT CEILING 5,830,563			h. ESTIMATED CONTRACT CEILING 6,593,488			i. DATE OF OTB/OTS (YYYYMMDD)		
6. ESTIMATED COST AT COMPLETION																										
						MANAGEMENT ESTIMATE AT COMPLETION (1)			CONTRACT BUDGET BASE (2)			VARIANCE (3)			7. AUTHORIZED CONTRACTOR REPRESENTATIVE											
						6,288,604									a. NAME (Last, First, Middle Initial) Dickerson, Kala K											
						6,514,832									b. TITLE Prime Contract Compliance Manager											
						6,351,882			6,421,767			69,885			c. SIGNATURE											
a. BEST CASE															d. DATE SIGNED (YYYYMMDD)											
b. WORST CASE																										
c. MOST LIKELY																										
8. PERFORMANCE DATA																										
CAPN.PBS			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)																		
ITEM (1)																										
RL-0011 Nuclear Mat Stab & Disp PFP			915	932	3,366	17	-2,434	991,525	978,586	1,144,300	-12,940	-165,715	0	0	0	1,001,762	1,193,938	-192,177								
RL-0012 SNF Stabilization & Disp			969	616	1,017	-354	-401	745,189	744,836	715,128	-354	29,707	0	0	0	761,876	730,999	30,877								
RL-0013 Solid Waste Stab & Disp			9,333	8,822	9,215	-511	-392	1,352,777	1,352,011	1,257,067	-766	94,944	0	0	0	1,498,650	1,401,829	96,821								
RL-0030 Soil & Water Rem-Grndwtr/Vadose			6,447	6,198	6,342	-250	-145	1,533,127	1,532,848	1,480,278	-279	52,570	0	0	0	1,645,011	1,591,540	53,470								
RL-0040 Nuc Fac D&D - Remainder Hanfrd			3,376	5,412	4,778	2,036	634	495,119	497,155	472,622	2,036	24,532	0	0	0	555,266	532,122	23,144								
RL-0041 Nuc Fac D&D - RC Closure Proj			7,902	6,043	7,736	-1,860	-1,693	599,674	596,236	536,859	-3,438	59,376	0	0	0	699,413	639,118	60,294								
RL-0042 Nuc Fac D&D - FFTF Proj			105	105	116	0	-12	26,592	26,580	22,094	-11	4,487	0	0	0	28,197	23,699	4,498								
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			29,048	28,127	32,570	-921	-4,443	5,744,002	5,728,251	5,628,349	-15,752	99,902	0	0	0	175,358	175,358	0								
f. MANAGEMENT RESERVE																										
g. TOTAL			29,048	28,127	32,570	-921	-4,443	5,744,002	5,728,251	5,628,349	-15,752	99,902	0	0	0	63,278	628,604	76,927								
9. RECONCILIATION TO CONTRACT BUDGET BASELINE																										
a. VARIANCE ADJUSTMENT																										
b. TOTAL CONTRACT VARIANCE																										

**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 / 10 / 01	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 10 / 21	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18			

5. PERFORMANCE DATA																		
WBS.Resp Org Group		CURRENT PERIOD					CUMULATIVE TO DATE					REPROGRAMMING			AT COMPLETION			
		BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		ADJUSTMENTS			BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)	
		WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)	COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)				
ITEM (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12a)	(12b)	(13)	(14)	(15)	(16)		
34 - Env Program & Strategic Plng	572	657	554	85	103	85,508	85,593	78,326	85	7,266	0	0	0	95,368	87,698	7,670		
35 - Business Services	0	0	0	0	0	477,296	477,296	453,596	0	23,700	0	0	0	477,296	453,596	23,700		
36 - Prime Contract & Proj Integr	0	0	0	0	0	1,111	1,111	492	0	618	0	0	0	1,111	492	618		
37 - Resource Mgmt & Strategic Intg	99	99	55	0	44	7,795	7,795	4,806	0	2,989	0	0	0	9,314	6,276	3,039		
3B - PFP Closure Project	915	932	3,366	17	-2,434	902,743	889,804	1,063,236	-12,940	-173,432	0	0	0	912,980	1,112,874	-199,894		
3C - Waste & Fuels Management Project	7,282	6,827	7,050	-454	-222	1,205,387	1,204,678	1,118,879	-709	85,799	0	0	0	1,319,969	1,232,864	87,105		
3D - Soil & Groundwater Remediation	5,851	5,516	5,777	-334	-261	1,346,009	1,345,645	1,294,436	-364	51,210	0	0	0	1,447,653	1,395,964	51,690		
3G - K Basin Oper & Plateau Remediation Project	3,872	3,198	3,872	-674	-673	1,042,299	1,041,532	982,401	-767	59,131	0	0	0	1,106,917	1,045,837	61,080		
3H - River Risk Management Project	7,001	5,406	7,017	-1,595	-1,611	242,596	239,515	216,877	-3,081	22,638	0	0	0	324,935	301,604	23,331		
3K - Central Plateau Risk Reduction	3,456	5,492	4,879	2,036	612	433,258	435,283	415,300	2,024	19,983	0	0	0	494,631	476,042	18,589		
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)	29,048	28,127	32,570	-921	-4,443	5,744,002	5,728,251	5,628,349	-15,752	99,902	0	0	0	6,365,532	6,288,604	76,927		
f. MANAGEMENT RESERVE																		
g. TOTAL	29,048	28,127	32,570	-921	-4,443	5,744,002	5,728,251	5,628,349	-15,752	99,902	0	0	0	6,428,810				

* 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: 2018/10/01 b. TO: 2018/10/21									
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 \$832,810		e. CONTRACT BUDGET BASE (C + D) \$6,421,767		f. TOTAL ALLOCATED BUDGET \$6,428,809		g. DIFFERENCE (E - F) (\$7,042)							
h. CONTRACT START DATE 6/19/2008				i. DEFINITIZATION DATE 6/19/2008		j. PLANNED COMPL DATE 9/30/2018		k. CONT COMPLETION DATE 9/30/2018				l. EST COMPLETION DATE 9/30/2018									
6. PERFORMANCE DATA																					
ITEM (1)	BCWS CUM TO DATE (2)	BCWS FOR REPORT PERIOD (3)	SIX MONTH FORECAST						FY09-13 (10)	FY14 (11)	FY15 (12)	FY16 (13)	FY17 (14)	FY18 (15)	FY19 (16)	UNDISTRIB BUDGET (17)	TOTAL BUDGET (18)				
			+1 Nov-18 (4)	+2 Dec-18 (5)	+3 Jan-19 (6)	+4 Feb-19 (7)	+5 Mar-19 (8)	+6 Apr-19 (9)													
a. PM BASELINE (BEGIN OF PERIOD)	5,714,955	0	0	0	0	0	0	0	3,391,477	391,653	471,323	504,826	485,028	470,649	0	175,358	5,890,312				
b. BASELINE CHANGES AUTH DURING REPORT PERIOD																					
BCR-013C-19-001R0, FY2019 Labor, G&A, and Waste Rates Implementation -W-135 CAP															(123)		(123)				
BCR-013C-19-002R0, FY2019 Base Year Shift Implementation -W-135 CAP															0		0				
BCR-041C-19-001R0, FY2019 Labor, G&A, and Waste Rates Implementation-RL-0041 CAP															(1,548)		(1,548)				
BCR-041C-19-002R0, FY2019 Base Year Shift Implementation -RL-0041 CAP															0		0				
BCR-PRC-19-001R0, Implementation of FY2019 Performance Measurement Baseline															490,084		490,084				
BCR-PRC-19-002R0, FY2019 Labor, G&A, and Waste Rates Implementation-OA Projects															(13,194)		(13,194)				
BCR-PRC-19-003R0, FY2019 Base Year Shift Implementation -OA Projects															0		0				
BCRA-PRC-19-005R0, HPIC Updates October 2018															0		0				
c. PM BASELINE (END OF PERIOD)	5,744,002	29,048	42,765	41,040	40,609	38,706	40,556	41,342	3,391,477	391,653	471,323	504,826	485,028	470,649	475,219	175,358	6,365,531				
7. MANAGEMENT RESERVE																	63,278				
8. TOTAL																	6,428,809				

CLASSIFICATION (When Filled In)

CONTRACT PERFORMANCE REPORT FORMAT 4 - STAFFING															FORM APPROVED OMB No. 0704-0188		
															Dollars in: FTE		
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)				
b. LOCATION (Address and ZIP Code) Richland, WA			b. NUMBER RL14788					b. PHASE					2018 / 10 / 01				
			c. TYPE CPAF		d. SHARE RATIO			c. EVMS ACCEPTANCE NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18					b. TO (YYYYMMDD) 2018 / 10 / 21				
5. PERFORMANCE DATA																	
WBS.Resp Org Group		ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	FORECAST (Non-Cumulative)											AT COMPLETION (15)		
ORGANIZATIONAL CATEGORY (1)				SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS							
				+1 NOV 2018 (4)	+2 DEC 2018 (5)	+3 JAN 2019 (6)	+4 FEB 2019 (7)	+5 MAR 2019 (8)	+6 APR 2019 (9)	MAY 2019 (10)	JUN 2019 (11)	FY19 END (12)	FY20-LC (13)	ATCOMPLETE (14)			
		7	814	7	6	7	6	7	6	7	6	7	6	20	0	0	886
303 - Internal Audit		6	535	7	7	7	7	7	7	7	7	7	7	20	0	0	610
304 - General Counsel		4	499	4	4	4	4	4	4	4	4	4	4	13	0	0	546
31 - Communications		8	1,125	8	8	8	8	8	8	8	8	8	8	25	0	0	1,219
32 - Safety Health Security & Quality		55	7,836	61	61	61	61	61	62	62	62	66	193	0	0	0	8,526
34 - Env Program & Strategic Plng		47	5,337	47	45	45	45	45	43	43	43	43	128	0	0	0	5,821
35 - Business Services		55	7,471	57	57	57	57	57	57	57	57	57	170	0	0	0	8,094
36 - Prime Contract & Proj Integr		40	3,968	43	43	43	42	42	42	42	42	42	125	0	0	0	4,430
37 - Resource Mgmt & Strategic Intg		34	2,911	37	38	42	42	42	43	43	43	43	130	0	0	0	3,372
38 - Project Technical Services		38	6,033	32	34	34	34	35	35	35	35	37	111	0	0	0	6,419
3B - PFP Closure Project		185	51,520	197	199	206	194	192	189	183	180	238	0	0	0	0	53,299
3C - Waste & Fuels Management Project		361	54,203	373	386	405	400	391	376	373	1,124	5	0	0	0	0	58,427
3D - Soil & Groundwater Remediation		288	39,853	287	286	297	306	303	300	303	839	19	0	0	0	0	43,099
3G - K Basin Oper & Plateau Remediation Project		216	34,362	211	227	231	219	229	228	217	223	685	0	0	0	0	36,833
3H - River Risk Management Project		225	6,458	212	213	217	219	217	218	217	217	634	14	0	0	0	8,836
3K - Central Plateau Risk Reduction		172	17,679	169	200	216	212	200	166	176	162	513	27	0	0	0	19,720
g. TOTAL DIRECT		1,740	240,604	1,751	1,815	1,881	1,857	1,839	1,807	1,777	1,772	4,969	66	0	0	0	260,138

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) 2018/10/01			
b. LOCATION (Address and ZIP Code) Richland, WA 99354		b. NUMBER DE-AC06-08RL14788		b. PHASE Base		b. TO (YYYY/MM/DD) 2018/10/21			
		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:	29,048	28,127	32,570	(921)	-3.2%	(4,443)	-15.8%	0.97	0.86
Cumulative:	5,744,022	5,728,251	5,628,349	(15,772)	-0.3%	99,902	1.7%	1.00	1.02
	BAC	EAC	VAC in \$	VAC in %	TCPI				
At Complete:	6,365,532	6,288,604	76,927	1.2%	0.97				
Explanation of Variance/Description of Problem:									
<p>Current Period Schedule Variance: The current month (CM) schedule variance is within threshold.</p> <p>Current Period Cost Variance: The CM negative cost variance is primarily due to Project Breakdown Structure (PBS) RL-0011 resumption actions and implementation of the new demolition requirements associated with the December 2017 contamination event. This includes fixative applications, performance of radiological surveys, revising radiological postings, infrastructure modifications, 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 and mockups are performed, costs for labor, subcontracts, and material purchases contribute to the current month variance. Additionally, work to size reduce and loadout debris associated with demolition has been slower than planned due to continued process improvements being implemented and a learning curve associated with revised requirements.</p> <p>PBS RL—41 is also contributing to the negative cost variance due to additional subcontractor costs at the 324 Building Disposition Project in support of work scope that has pushed into FY2019 from FY2018. (i.e., interference removal, 324 Building design for structural modifications).</p> <p>Cumulative Schedule Variance: The variance is within reporting thresholds.</p> <p>Cumulative Cost Variance: The variance is within reporting thresholds.</p>									
Impact:									
<p>Current Period Schedule: The current month schedule variance is not expected to impact the overall contract schedule.</p> <p>Current Period Cost: Cost impacts are being estimated and will be incorporated in the project estimate to complete (ETC).</p> <p>Cumulative Schedule: N/A</p> <p>Cumulative Cost: N/A</p>									
Corrective Action:									
<p>Current Period Schedule: No corrective actions have been identified.</p> <p>Current Period Cost: A baseline change request (BCR) implementing a revised PFP Cap 2 Project baseline is anticipated following receipt of the results of an ICE/EIR performed by DOE-HQ.</p> <p>Cumulative Schedule: N/A</p> <p>Cumulative Cost: N/A</p>									
Monthly Summary (to include technical causes of VARs, Impacts, and Corrective Action(s):									
<p>CHPRC continues to track completion of the contract scope within budget and is currently projecting a variance at completion (VAC) of \$76.9 million, with \$63.3 million of management reserve (MR), for a total positive variance of \$140.2 million. For October, the project was 3.2 percent behind schedule and 15.8 percent over planned cost. Contract to date (CTD), the project was 0.3 percent behind schedule and 1.7 percent under planned cost.</p> <p>There was no increase in the difference between the Contract Budget Base and the Total Allocated Budget on Format 3 since last month.</p> <p>Four of the 11 BCRs implemented in the period impacted the PMB:</p> <ul style="list-style-type: none"> • BCR-013C-19-001R0, <i>FY2019 Labor, G&A, and Waste Rates Implementation –W-135 CAP</i> • BCR-041C-19-001R0, <i>FY2019 Labor, G&A, and Waste Rates Implementation –RL-0041 CAP</i> • BCR-PRC-19-001R0, <i>Implementation of FY2019 Performance Measurement Baseline</i> 									

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

- BCR-PRC-19-002R0, FY2019 Labor, G&A, and Waste Rates Implementation -OA Projects

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 + \$76.9 million, +1.0% and is within reporting thresholds.

Format 1 and 3 Contract Data:

Contract Price Adjustments

CPs - In Process		
	Total Authorized Unpriced Work	\$832,810
Approved Adjustments to Contract Price (not reflected in B.4-1 Table)		
	Total Negotiated Cost Changes	-
	Grand Total Adjustments	\$832,810

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

Undistributed Budget Activity

BCR Number	Title	PBS	Fiscal Year	UB
N/A	N/A	N/A	2019	N/A

There was no change to Undistributed Budget in October.

Management Reserve Activity

BCR Number	Title	PBS	Fiscal Year	MR
N/A	N/A	N/A	2019	\$0

Overall, there was no change in MR during October.

Fee Activity

BCR Number	Title	PBS	Fiscal Year	Fee
N/A	N/A	N/A	2019	N/A

Overall, there was no change to Fee during October.

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

Prepared by:
Project Control Staff

Date:
11/15/2018

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, 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

October 2018
CHPRC-2018-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

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

D. J. Henderson (Acting)
Director of
Communications

K. K. Dickerson
Vice President for
Prime Contract and
Project Integration

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

C. J. Simiele
Vice President for
Resource Management
and Strategic Integration

This section is reported quarterly.

Appendix C

Capital Asset Projects

CH2MHILL
Plateau Remediation Company



October 2018
CHPRC-2018-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

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



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

October 2018
CHPRC-2018-10, 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) has been staged until the area of the 234-5Z Facility is demolished. The total 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

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

MAJOR ISSUES




The shipping of waste to Environmental Restoration Disposal Facility (ERDF) that had been loaded prior to the December 2017 contamination event completed in October. Loadout of existing 234-5Z building debris has continued throughout the month of October 2018 and approximately 8 percent of the existing debris pile has been shipped to ERDF for disposal. The higher-risk demolition, scheduled to begin in March 2019, is currently being planned and preparations for a second management assessment (MA) are being made. This will allow for the removal of the final glovebox remaining in 234-5Z after the higher-risk MA is performed.




CORRECTIVE ACTION LOG

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

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

-  Increased Confidence
-  No Change
-  Decreased Confidence

Risk Title Risk Owner	Unmitigated Risk Impacts	Assessment		Comments
		Month	Trend	
RL-0011/WBS-011.05.01.01.06 (CAP.1)				
Explanation of major changes to the project monthly spotlight chart: No major changes to the spotlight chart in October .				
Realized Risks (Risks that are currently impacting project cost/schedule)				
No realized risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in October .				
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)				
No critical risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in October .				
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 October .				
Unassigned Risks (Pending ownership of identified risks/opportunities)				
No unassigned risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in October .				

CRITICAL PATH SCHEDULE

The Plutonium Finishing Plant (PFP) Critical Path schedule begins with debris disposition of the 234-5Z rubble piles 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 RMA process line demolition will begin after a second MA is completed and concurrence granted by RL to resume higher-risk demolition activities. Working in parallel with RMA and RMC will be the 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 June 25, 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	11/30/2017	6/25/2019	There has been a 9-day loss since September. This was a result of incorporation of further revisions to the revised demo approach responding to the contamination event that occurred in December 2017. The total gloveboxes removed to date remains at 99 percent complete. Completion of CD-4 closure by November 30, 2017, was not achieved.

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

**Forecast 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



October 2018
CHPRC-2018-10, Rev. 0
Contract DE-AC07-08RL14788
Deliverable C.3.1.3.1 - 1

CONTRACT PERFORMANCE REPORT FORMAT 1 - WORK BREAKDOWN STRUCTURE														DOLLARS IN		Thousands of \$		FORM APPROVED OMB No. 0704-0188													
1. CONTRACTOR			2. CONTRACT				3. PROGRAM				4. REPORT PERIOD																				
a. NAME CH2M HILL Plateau Remediation Company			a. NAME Plateau Remediation Contract				a. NAME RL_0011_C1 - PFP D&D (ARRA/Base)				a. FROM (YYYYMMDD) 2018 / 10 / 01																				
b. LOCATION (Address and ZIP Code) Richland, WA			b. NUMBER RL14788				b. PHASE				b. TO (YYYYMMDD) 2018 / 10 / 21																				
			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 330,987		c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 0		d. TARGET PROFIT/FEE 9,878		e. TARGET PRICE 340,865		f. ESTIMATED PRICE 344,864		g. CONTRACT CEILING 340,865		h. ESTIMATED CONTRACT CEILING 344,864		i. DATE OF OTB/OTS (YYYYMMDD)															
6. ESTIMATED COST AT COMPLETION																															
				MANAGEMENT ESTIMATE AT COMPLETION (1)		CONTRACT BUDGET BASE (2)		VARIANCE (3)		7. AUTHORIZED CONTRACTOR REPRESENTATIVE																					
				332,593						a. NAME (Last, First, Middle Initial) Dickerson, Kala K				b. TITLE Prime Contract Compliance Manager																	
a. BEST CASE				334,991						c. SIGNATURE				d. DATE SIGNED (YYYYMMDD)																	
b. WORST CASE				334,986		330,987		-3,999																							
c. MOST LIKELY																															
8. PERFORMANCE DATA																															
CAPN.PBS Control Account.PARS 2 WBS (2)		CURRENT PERIOD				CUMULATIVE TO DATE				REPROGRAMMING ADJUSTMENTS				AT COMPLETION																	
		BUDGETED COST		ACTUAL COST WORK PERFORMED		VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED		VARIANCE				BUDGETED		ESTIMATED		VARIANCE											
ITEM (1)		WORK SCHEDULED (2)		WORK PERFORMED (3)		SCHEDULE (5)		COST (6)		WORK SCHEDULED (7)		WORK PERFORMED (8)		COST (9)		SCHEDULE (10)		COST (11)		COST VARIANCE (12a)		SCHEDULE VARIANCE (12b)		BUDGET (13)		(14)		(15)		(16)	
RL-0011 Nuclear Mat Stab & Disp PFP		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0	
RL_0011_C1.02 Maintain Safe & Compliant PFP		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0	
RL_0011_C1.05 Disposition PFP Facility		0		0		0		0		235,514		235,495		259,792		-19		-24,296		0		0		0		235,514		259,806		-24,291	
RL_0011_C1.06 Project Management & Support		0		0		0		0		11,990		11,990		12,477		0		-487		0		0		0		11,990		12,477		-487	
RL_0011_C1.90 Usage Based Services Distributions -PBS RL-11		0		0		0		0		7,221		7,221		7,731		0		-510		0		0		0		7,221		7,731		-510	
RL_0011_C1.98 Ramp-up and transition		0		0		0		0		19,399		19,399		19,253		0		147		0		0		0		19,399		19,253		147	
RL_0011_C1.99 PBS RL-11 UBS, G-n-A, Direct Distrib		0		0		0		0		41,028		41,028		33,328		0		7,700		0		0		0		41,028		33,328		7,700	
b. COST OF MONEY		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0	
c. GENERAL AND ADMINISTRATIVE		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0	
d. UNDISTRIBUTED BUDGET																															
e. SUBTOTAL		0		0		0		0		315,152		315,133		332,579		-19		-17,446		0		0		0		315,152		332,593		-17,441	
f. MANAGEMENT RESERVE																										2,393					
g. TOTAL		0		0		0		0		315,152		315,133		332,579		-19		-17,446		0		0		0		317,545					
9. RECONCILIATION TO CONTRACT BUDGET BASELINE																															
a. VARIANCE ADJUSTMENT																															
b. TOTAL CONTRACT VARIANCE																															

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

CLASSIFICATION (When Filled In)

CONTRACT PERFORMANCE REPORT
FORMAT 2 - ORGANIZATIONAL CATEGORIES

DOLLARS IN

Thousands of \$

FORM APPROVED

OMB No. 0704-0188

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD					
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL_0011_C1 - PFP D&D (ARRA/Base)		a. FROM (YYYYMMDD) 2018 / 10 / 01					
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 10 / 21					
		c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE <table><tr><td><input type="checkbox"/> NO</td><td><input checked="" type="checkbox"/> X YES</td><td>(YYYYMMDD)</td><td>2009 / 09 / 18</td></tr></table>		<input type="checkbox"/> NO	<input checked="" type="checkbox"/> X YES	(YYYYMMDD)	2009 / 09 / 18
<input type="checkbox"/> NO	<input checked="" type="checkbox"/> X YES	(YYYYMMDD)	2009 / 09 / 18								

5. PERFORMANCE DATA

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					BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)
	WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)	COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)			
35 - Business Services	0	0	0	0	0	60,427	60,427	52,580	0	7,847	0	0	0	60,427	52,580	7,847
3B - PFP Closure Project	0	0	0	0	0	254,725	254,706	279,999	-19	-25,293	0	0	0	254,725	280,013	-25,288
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
d. UNDISTRIBUTED BUDGET														0	0	0
e. SUBTOTAL (Performance Measurement Baseline)	0	0	0	0	0	315,152	315,133	332,579	-19	-17,446	0	0	0	315,152	332,593	-17,441
f. MANAGEMENT RESERVE														2,393		
g. TOTAL	0	0	0	0	0	315,152	315,133	332,579	-19	-17,446	0	0	0	317,545		

CLASSIFICATION (When Filled In)

CONTRACT PERFORMANCE REPORT																Form Approved OMB No. 0704-0188		
FORMAT 3 - BASELINE									DOLLARS IN THOUSANDS									
1. CONTRACTOR CH2M HILL Plateau Remediation Company			2. CONTRACT a. NAME: Plateau Remediation Contract b. NUMBER: RL14788 c. TYPE: CPAF d. SHARE RATIO:						3. PROGRAM RL_0011_C1 - PFP D&D (ARRA/Base) a. NAME: Plateau Remediation Contract b. PHASE c. EVMS ACCEPTANCE NO YES X 9/18/2009							4. REPORT PERIOD a. FROM: 2018/10/01 b. TO: 2018/10/21		
b. LOCATION: Richland, WA																		
5. CONTRACT DATA																		
a. ORIGINAL NEGOTIATED COST 330,967				b. NEGOTIATED CONTRACT CHANGE \$0		c. CURRENT NEGOTIATED COST (A + B) \$330,967		d. ESTIMATED COST AUTH UNPRICED WORK \$0		e. CONTRACT BUDGET BASE (C + D) \$330,967			f. TOTAL ALLOCATED BUDGET \$317,545			g. DIFFERENCE (E - F) \$13,442		
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																		
(1)	BCWS CUM TO DATE (2)	BCWS FOR REPORT PERIOD (3)	SIX MONTH FORECAST						FY09-13 (10)	FY14 (11)	FY15 (12)	FY16 (13)	FY17 (14)	FY18 (15)	FY19 (16)	UNDISTRIB BUDGET (17)	TOTAL BUDGET (18)	
			+1 Nov-18 (4)	+2 Dec-18 (5)	+3 Jan-19 (6)	+4 Feb-19 (7)	+5 Mar-19 (8)	+6 Apr-19 (9)										
a. PM BASELINE (BEGIN OF PERIOD)	315,152	0	0	0	0	0	0	0	302,288	4,109	7,749	890	116	0	0	0	315,152	
b. BASELINE CHANGES AUTH DURING REPORT PERIOD																		
c. None at this time.											0	0	0	0	0	0	0	
d. PM BASELINE (END OF PERIOD)	315,152	0	0	0	0	0	0	0	302,288	4,109	7,749	890	116	0	0	0	315,152	
7. MANAGEMENT RESERVE 2,393																		
8. TOTAL 317,545																		

CONTRACT PERFORMANCE REPORT FORMAT 4 - STAFFING														FORM APPROVED OMB No. 0704-0188	
Dollars in: FTE															
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)		
b. LOCATION (Address and ZIP Code) Richland, WA			b. NUMBER RL14788					b. PHASE					2018 / 10 / 01		
			c. TYPE CPAF		d. SHARE RATIO			c. EVMS ACCEPTANCE <input type="checkbox"/> NO <input checked="" type="checkbox"/> X YES (YYYYMMDD) 2009 / 09 / 18					b. TO (YYYYMMDD) 2018 / 10 / 21		
5. PERFORMANCE DATA															
WBS.Resp Org Group		ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	FORECAST (Non-Cumulative)											AT COMPLETION (15)
ORGANIZATIONAL CATEGORY (1)				SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS					
				+1 NOV 2018 (4)	+2 DEC 2018 (5)	+3 JAN 2019 (6)	+4 FEB 2019 (7)	+5 MAR 2019 (8)	+6 APR 2019 (9)	MAY 2019 (10)	JUN 2019 (11)	FY19 END (12)	FY20-LC (13)	ATCOMPLETE (14)	
35 - Business Services		0	17	0	0	0	0	0	0	0	0	0	0	0	17
3B - PFP Closure Project		0	15,441	0	0	0	0	0	1	0	0	0	0	0	15,442
g. TOTAL DIRECT		0	15,458	0	0	0	0	0	1	0	0	0	0	0	15,459

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) 2018/10/01	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE				b. TO (YYYYMMDD) 2018/10/21	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE No X Yes (YYYYMMDD) 2009 / 09 / 18					
Direct Projects									
5. Evaluation	Budget	Earned	Actuals	SV in \$	SV in %	CV in \$	CV in %	SPI	CPI
Current:	0	0	0	0	0	0	0	0	0
Cumulative:	315,152	315,133	332,579	-19	0.0%	-17,446	-5.5%	1.00	0.95
	BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:	315,152	332,593	-17,441	-5.5%	0	1.37			
<p>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.</p> <p>Cumulative To Date: Schedule Variance: Within Threshold Cost Variance: Within Threshold</p> <p>Impact: Impact: The RL-011.C1 project baseline completion date is November 19, 2016. The current schedule now reflects a completion date of June 25, 2019. There has been a 9-day loss since September. This was a result of incorporation of further revisions to the revised demo approach responding to the contamination event that occurred in December 2017.</p> <p>The current RL-11 performance schedule indicates that the PFP project will achieve slab-on-grade by June 24, 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. 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.</p> <p>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.</p> <p>Cost variance is not considered recoverable as there is only a small amount of scope remaining to complete the KPP.</p> <p>Corrective Action: None at this time</p> <p>No Corrective Actions Required</p> <ol style="list-style-type: none"> Schedule Margin Analysis: There is no schedule margin associated with the RL-011.C1 capital asset account. IMS Data dictionary Changes: None in the month of October. Forecast Schedule with No Baseline: None in the month of October. UB Balance: None in the month of October. Negative ACWP: None in the month of October. EAC Analysis: Best Case = \$332,593; Most Likely = \$334,986; Worst Case = \$334,991. 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 ETC 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. Negative CV > VAC: Scope to perform size reduction efforts on the high gram glovebox removal efforts was estimated to be completed in a much shorter time frame with much fewer resources than originally planned causing the large Cost Variance. The EAC is reflective of the current approach to perform the remaining work scope. MR Transactions: None in the month of October. Freeze Period Changes: None in the month of October. Retroactive Changes: None in the month of October. EVT Changes: None in the month of October. 									
Prepared by: Cory McCoy			11/12/2018			Approved by:		Date:	

Appendix C.2

Capital Asset Project

RL-0011.C2 - Demolition of PFP Facilities



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

October 2018
CHPRC-2018-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

The shipping of waste to the Environmental Restoration Disposal Facility (ERDF), that had been loaded prior to the December 2017 contamination event, completed in October. Loadout of existing 234-5Z building debris has continued throughout the month and approximately 8 percent of the existing debris pile has been shipped to ERDF for disposal. The higher-risk demolition, scheduled to begin in March 2019 is currently being planned and preparations for a second management assessment (MA) are being made.

<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

- Finished shipping waste loaded prior to the December 2017 contamination event.
- Loaded and shipped approximately eight percent of existing 234-5Z rubble debris.
- Continued process improvements for ERDF waste disposition by elevating the loadout area and procuring steel plates that will be placed under the waste containers to expedite the loading and unloading of the containers, directing any liquids toward the berm and speed up the process of cleaning up any spills.

MAJOR ISSUES

No major issues experienced in October.

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

CRITICAL PATH SCHEDULE

The PFP Critical Path schedule begins with the resumption of debris disposition of the 234-5Z rubble piles starting with the frontside waste. Once the waste debris is loaded out, demolition will resume on the remaining sections of Zones two and seven, with the exception of the drain line. Remote Mechanical C process line demolition, Remote Mechanical A process line demolition, and loadout of glovebox HA-46, in parallel with completion of the basement of 234-5Z demolition, will begin after a second MA and concurrence is obtained to resume high-risk demo from RL. The 234-5Z demolition is projected to complete April 23, 2019. The 236-Z canyon demolition will then resume with completion scheduled for June 24, 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 in September 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.	8/31/2018	9/5/2019	There was a 9-day loss of schedule since September. This was a result of incorporation of further revisions to the revised demo approach responding to the contamination event that occurred in December 2017. Pre-start corrective actions were completed in September and the project began debris loadout. Loadout of the existing debris continued in October with approximately 8 percent of the total debris pile shipped to ERDF for disposal.

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

**Forecast date reflects CD-4 due date without DOE contingency.

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: Risk PFP-P-014, <i>Bump and Roll, LAMP, or Other Contractor Hiring of Bargaining Unit Employees Affecting Productivity</i> , were added to the spotlight chart as realized risks. In addition, risks PFP-P-007, <i>Demolition Equipment Reliability and Modification</i> , and PFP-P5-006, <i>Additional Soil Removal is Required</i> , were added to the spotlight chart as Fiscal Year (FY) 2019 Risk Triggers based on the FY2019 Risk Analysis.																			
Realized Risks (Risks that are currently impacting project cost/schedule)																			
PFP-P-014: Bump and Roll, LAMP, or Other Contractor Hiring of Bargaining Unit Employees Affecting Productivity	Plutonium Finishing Plant (PFP) Hanford Atomic Metal Trades Council (HAMTC) labor resources are unavailable or unqualified due to the bump and roll, LAMP (Labor Assets Management Program) or other job postings, resulting in schedule impacts to the project. Risk Handling Strategy: Control Probability: Very Low (<10%) Worst Case Impacts: \$0, 64 days			Risk Event: Twenty-five Decontamination and Decommissioning (D&D) workers have been hired to other projects on the Hanford Site and will be leaving PFP. The process to hire new D&D workers has been initiated. <table border="1"><thead><tr><th>Risk recovery action(s)</th><th>FC Date</th><th>%</th></tr></thead><tbody><tr><td>Communication and coordination with other projects, contractors, and unions to reduce or eliminate the impact of the bump and roll process.</td><td>Ongoing</td><td>N/A</td></tr><tr><td>Hire and train additional D&D workers as needed to perform demolition work at PFP.</td><td>1/29/19</td><td>10%</td></tr></tbody></table> Risk Action Assessment: Offers have been made to new D&D workers and training is scheduled to begin December 3, 2018.	Risk recovery action(s)	FC Date	%	Communication and coordination with other projects, contractors, and unions to reduce or eliminate the impact of the bump and roll process.	Ongoing	N/A	Hire and train additional D&D workers as needed to perform demolition work at PFP.	1/29/19	10%						
Risk recovery action(s)	FC Date	%																	
Communication and coordination with other projects, contractors, and unions to reduce or eliminate the impact of the bump and roll process.	Ongoing	N/A																	
Hire and train additional D&D workers as needed to perform demolition work at PFP.	1/29/19	10%																	
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)																			
No critical risks in October.																			
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)																			
No high risk threat value risks in October.																			
FY2019 Risk Triggers (Risk could be realized in FY2019)																			
PFP-P-004: Stop Work From Concerned Workers	Concerned workers result in a stop work to address 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 Probability: Very Likely (>90%) Worst Case Impacts: \$0, 52 days			Risk Event: During resumption of PFP demolition activities, an increase in stop works could result in delays. <table border="1"><thead><tr><th>Mitigation action(s)</th><th>FC Date</th><th>%</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> Mitigation Assessment: No major changes in October. Increased communication and worker involvement to avoid confusion and concern in an effort to minimize stop works.	Mitigation 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
Mitigation 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-007: Demolition Equipment Reliability and Modification	Ineffective demolition equipment attachments, mechanical failures, or contamination of clean equipment, impact the demolition of PFP. Equipment modification, leasing, or replacement will be required resulting in cost and schedule impacts. Risk Handling Strategy: Control Probability: Low (10% to 25%) Worst Case Impacts: \$1M, 48 days			Risk Trigger: Equipment failures result in delays to fieldwork. <table border="1"><thead><tr><th>Mitigation action(s)</th><th>FC Date</th><th>%</th></tr></thead><tbody><tr><td>Repurpose other owned equipment on-site.</td><td>Ongoing</td><td>N/A</td></tr><tr><td>Develop and maintain min/max inventory of spares.</td><td>10/15/18</td><td>100%</td></tr><tr><td>Perform planned preventative maintenance on equipment.</td><td>2/28/19</td><td>80%</td></tr></tbody></table> Mitigation Assessment: All mitigations have been sufficient to maintain equipment in working condition.	Mitigation action(s)	FC Date	%	Repurpose other owned equipment on-site.	Ongoing	N/A	Develop and maintain min/max inventory of spares.	10/15/18	100%	Perform planned preventative maintenance on equipment.	2/28/19	80%			
Mitigation action(s)	FC Date	%																	
Repurpose other owned equipment on-site.	Ongoing	N/A																	
Develop and maintain min/max inventory of spares.	10/15/18	100%																	
Perform planned preventative maintenance on equipment.	2/28/19	80%																	
PFP-P5-006: Additional Soil Removal is Required	Prior to the placement of the cover cap, the additional soil added for contamination control is required to be dispositioned,			Risk Trigger: Additional soil, above planned value, is required to be removed due to contamination or regulatory concerns.															

	resulting in cost and schedule delays to the project. Risk Handling Strategy: Control Probability: Low (10% to 25%) Worst Case Impacts: \$0, 54 days			Mitigation action(s)	FC Date	%
				Engage early with RL to identify a path forward associated with the additional soil.	11/9/18	75%
				Replan the schedule as needed to incorporate plan prior to Critical Decision-2/3 rebaselining efforts.	12/3/18	50%
				Mitigation Assessment: Continued communication with RL on required soil removal. No additional soil above planned quantity is required at this time.		
Unassigned Risks (Pending ownership of identified risks/opportunities)						
No unassigned risks identified in October .						

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None to report at this time.

DOE ACTIONS / DECISIONS

Working with RL on CD-4 closure actions.

Appendix C.2

RL-0011.C2 - Demolition of PFP Facilities

Contract Performance Reports

Format 1 - Work Breakdown Structure

Format 2 - Organizational Categories

Format 3 - Baseline

Format 4 - Staffing

Format 5 - Explanation and Problem Analysis



October 2018
CHPRC-2018-10, 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 / 10 / 01											
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 10 / 21											
		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. 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 146,304	g. CONTRACT CEILING 56,683	h. ESTIMATED CONTRACT CEILING 146,304	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		137,869			c. SIGNATURE		d. DATE SIGNED (YYYYMMDD)										
b. WORST CASE		141,304															
c. MOST LIKELY		141,304	51,683	-89,621													
8. PERFORMANCE DATA																	
CAPN.PBS Control Account.PARS 2 WBS (2) ITEM (1)		CURRENT PERIOD				CUMULATIVE TO DATE				REPROGRAMMING ADJUSTMENTS			AT COMPLETION				
		BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)
		WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)						
RL-0011 Nuclear Mat Stab & Disp PFP																	
RL_0011_C2.05 Disposition PFP Facility		0	32	2,577	32	-2,546	55,307	42,410	97,600	-12,897	-55,191	0	0	0	55,307	137,869	-82,562
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															
e. SUBTOTAL		0	32	2,577	32	-2,546	55,307	42,410	97,600	-12,897	-55,191	0	0	0	55,307	137,869	-82,562
f. MANAGEMENT RESERVE		3,434															
g. TOTAL		0	32	2,577	32	-2,546	55,307	42,410	97,600	-12,897	-55,191	0	0	0	58,741		
9. RECONCILIATION TO CONTRACT BUDGET BASELINE																	
a. VARIANCE ADJUSTMENT																	
b. TOTAL CONTRACT VARIANCE															58,741	137,869	-79,128

CONTRACT PERFORMANCE REPORT															FORM APPROVED		
FORMAT 2 - ORGANIZATIONAL CATEGORIES															DOLLARS IN Thousands of \$ 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)				
b. LOCATION (Address and ZIP Code) Richland, WA			b. NUMBER RL14788					b. PHASE					2018 / 10 / 01				
			c. TYPE CPAF		d. SHARE RATIO			c. EVMS ACCEPTANCE <div><input type="checkbox"/> NO<input checked="" type="checkbox"/> X YES</div> (YYYYMMDD)2009 / 09 / 18					b. TO (YYYYMMDD)				
													2018 / 10 / 21				
5. PERFORMANCE DATA																	
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	WORK PERFORMED	COST WORK PERFORMED	SCHEDULE	COST	WORK SCHEDULED	WORK PERFORMED	COST WORK PERFORMED	SCHEDULE	COST	COST VARIANCE	SCHEDULE VARIANCE	BUDGET			
ITEM (1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12a)	(12b)	(13)	(14)	(15)	(16)
3B - PFP Closure Project		0	32	2,577	32	-2,546	55,307	42,410	97,600	-12,897	-55,191	0	0	0	55,307	137,869	-82,562
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	32	2,577	32	-2,546	55,307	42,410	97,600	-12,897	-55,191	0	0	0	55,307	137,869	-82,562
f. MANAGEMENT RESERVE															3,434		
g. TOTAL		0	32	2,577	32	-2,546	55,307	42,410	97,600	-12,897	-55,191	0	0	0	58,741		

CLASSIFICATION (When Filled In)

[illegible]

CONTRACT PERFORMANCE REPORT FORMAT 4 - STAFFING													FORM APPROVED OMB No. 0704-0188		
Dollars in: FTE															
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 / 10 / 01				
b. LOCATION (Address and ZIP Code) Richland, WA			b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 10 / 21								
			c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE <div><div></div>NO<div><input checked="" type="checkbox"/>YES</div>(YYYYMMDD)2009 / 09 / 18</div>								
5. PERFORMANCE DATA															
WBS.Resp Org Group		ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	FORECAST (Non-Cumulative)										AT COMPLETION (15)	
ORGANIZATIONAL CATEGORY (1)				SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS					
				+1 NOV 2018 (4)	+2 DEC 2018 (5)	+3 JAN 2019 (6)	+4 FEB 2019 (7)	+5 MAR 2019 (8)	+6 APR 2019 (9)	MAY 2019 (10)	JUN 2019 (11)	FY19 END (12)	FY20-LC (13)		ATCOMPLETE (14)
3B - PFP Closure Project		138	2,363	145	149	156	144	143	142	140	140	201	0	0	3,722
g. TOTAL DIRECT		138	2,363	145	149	156	144	143	142	140	140	201	0	0	3,722

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) 2018/10/01		
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE			b. TO (YYYYMMDD) 2018/10/21		
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
Current:		0.0	31.6	2,577.2	31.6	0	-2,545.7	-8060.9%	0
Cumulative:		55,306.9	42,409.6	97,600.2	-12,897.2	-23.3%	-55,190.6	-130.1%	0.77
		BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC		
At Complete:		55,306.9	137,869.3	-82,562.4	-149.3%	0	0.32		
Explanation of Variance/Description of Problem:									
Current Month:									
Schedule Variance: The schedule variance for the current month is within threshold.									
<p>Cost Variance: 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, revising radiological postings, infrastructure modifications, 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 and mockups are performed, costs for labor, subcontracts, and material purchases add to the current month variance. Additionally, work to size reduce and loadout debris associated with demolition has been slower than planned due to continued process improvements being implemented and a learning curve associated with revised requirements.</p> <p>Cumulative to Date:</p> <p>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.</p> <p>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.</p>									
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. 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. Completion of all demolition activities are scheduled to occur in June 2019. The June date is reflective of the known actions and resumption efforts associated with a contamination event that occurred in December, 2017. 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.									
<p>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.</p>									
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.									

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.

All corrective actions and resumption pre-start items identified in the management assessment are have been completed, and the DOE has provided concurrence for the resumption of lower risk work. The Stop Work issued by CHPRC management on demo activities has been lifted and resumption of low risk debris distositon has been initiated.

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 October
3. Forecast Schedule with No Baseline: No change in the month of October
4. UB Balance: No change in the month of October
5. Negative ACWP: No change in the month of October
6. EAC Analysis: Best Case = \$137,869; Most Likely = \$141,304; Worst Case = \$141,304. 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 ETC 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.
7. Negative CV > VAC: No change in the month of October
8. MR Transactions: No change in the month of October
9. Freeze Period Changes: No change in the month of October
10. Retroactive Changes: No change in the month of October
11. EVT Changes: No change in the month of October

Prepared by: Cory McCoy

Date: 11/12/18

Approved by:

Date:

Appendix C.3

Capital Asset Project

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



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

October 2018
CHPRC-2018-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

Infrastructure demobilization of the 618-10 Burial Ground was completed in September, marking completion of the 618-10 Burial Ground Complex project.

KEY ACCOMPLISHMENTS

There was no progress in the current period as the 618-10 Burial Ground Complex project was completed in fiscal year (FY) 2018.

MAJOR ISSUES




No major issues to report on at this time.




CORRECTIVE ACTION LOG

Reference Appendix C.3 Format 5 for specific corrective actions for this Capital 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 spotlight chart: No major changes in October .				
Realized Risks (Risks that are currently impacting project cost/schedule)				
No realized risks identified in October .				
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)				
No critical risks identified in October .				
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)				
Lifecycle Risk Triggers (Risk could be realized at any point of the project)				
Unassigned Risks (Pending ownership of identified threats/opportunities)				
No unassigned risks identified in October .				

CONTRACT-TO-DATE

WBS 041/ RL-0041 Capital Asset Project	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Estimate to Complete (ETC)	Variance at Completion (VAC)
Total	68.9	68.9	46.6	0.0	0.0%	22.4	32.4%	68.9	46.6	0.0	22.4

Numbers are rounded to the nearest \$0.1 million

Reference Appendix C.3 Format 5 for narrative on Contract-to-Date performance analysis.

CRITICAL PATH SCHEDULE

There is no critical path because the project is complete.

SCHEDULE MARGIN/MANAGEMENT RESERVE

Reference Appendix C.3 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	8/2/2018 (A)		The 618-10 Burial Ground closeout verification package (CVP) was issued on August 2, 2018, completing requirements of KPP 1.
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		12/13/2018	CHPRC activities for Critical Decision (CD)-4 closeout will be complete with the transmittal of the project closeout report, which cannot be transmitted until all costs have been finalized.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None to report at this time.

DOE ACTIONS / DECISIONS

None to report at this time.

Appendix C.3

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



October 2018
CHPRC-2018-10, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled in)

CONTRACT PERFORMANCE REPORT
FORMAT 1 - WORK BREAKDOWN STRUCTURE

DOLLARS IN

Thousands of \$

FORM APPROVED

OMB No. 0704-0188

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD											
a. NAME CH2M HILL Plateau Remediation Company		a. NAME PARS II - RL-0041.C1 Base Funded Nuc Fac D&D River Corr		a. NAME PARS II - RL-0041.C1 Base Funded Nuc Fac D&D River Corr		a. FROM (YYYYMMDD) 2018 / 10 / 01											
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 10 / 21											
		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 0	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 68,921	d. TARGET PROFIT/FEE 0	e. TARGET PRICE 0	f. ESTIMATED PRICE 46,557	g. CONTRACT CEILING 0	h. ESTIMATED CONTRACT CEILING 46,557	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		46,557			c. SIGNATURE		d. DATE SIGNED (YYYYMMDD)										
b. WORST CASE		46,557															
c. MOST LIKELY		46,557	0	-46,557													
8. PERFORMANCE DATA																	
CAPN.PBS Control Account.PARS 2 WBS (3)		CURRENT PERIOD				CUMULATIVE TO DATE				REPROGRAMMING ADJUSTMENTS			AT COMPLETION				
		BUDGETED COST		ACTUAL COST WORK PERFORMED	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED	VARIANCE					BUDGETED	ESTIMATED	VARIANCE
ITEM (1)		WORK SCHEDULED (2)	WORK PERFORMED (3)	COST WORK PERFORMED (4)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	COST WORK PERFORMED (9)	SCHEDULE (10)	COST (11)	COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	(14)	(15)	(16)
RL-0041 Nuc Fac D&D - RC Closure Proj																	
RL_0041_C1.05.02 618-10 Burial Ground		0	0	26	0	-26	56,014	56,014	41,843	0	14,172	0	0	0	56,014	41,843	14,172
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		0	0	0	0	0	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		0	0	-1	0	1	112	112	11	0	101	0	0	0	112	11	101
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	0	25	0	-25	68,921	68,921	46,557	0	22,363	0	0	0	68,921	46,557	22,363
f. MANAGEMENT RESERVE															0		
g. TOTAL		0	0	25	0	-25	68,921	68,921	46,557	0	22,363	0	0	0	68,921		
9. RECONCILIATION TO CONTRACT BUDGET BASELINE																	
a. VARIANCE ADJUSTMENT																	
b. TOTAL CONTRACT VARIANCE										0		22,363		68,921 46,557 22,363			

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 / 10 / 01											
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2018 / 10 / 21											
		c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE <input type="checkbox"/> NO <input checked="" type="checkbox"/> X YES (YYYYMMDD) 2009 / 09 / 18											
5. PERFORMANCE DATA																	
WBS.FOC Control Account.PARS 2 WBS (3) ITEM (1)		CURRENT PERIOD				CUMULATIVE TO DATE				REPROGRAMMING ADJUSTMENTS			AT COMPLETION				
		BUDGETED COST		ACTUAL	VARIANCE		BUDGETED COST		ACTUAL	VARIANCE					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)
041.6 - 618 10 Projects																	
RL_0041_C1.05.02 618-10 Burial Ground		0	0	26	0	-26	56,014	56,014	41,843	0	14,172	0	0	0	56,014	41,843	14,172
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		0	0	0	0	0	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		0	0	-1	0	1	112	112	11	0	101	0	0	0	112	11	101
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															
e. SUBTOTAL (Performance Measurement Baseline)		0	0	25	0	-25	68,921	68,921	46,557	0	22,363	0	0	0	68,921	46,557	22,363
f. MANAGEMENT RESERVE		0															

CONTRACT PERFORMANCE REPORT FORMAT 3 - BASELINE														DOLLARS IN THOUSANDS				Form Approved OMB No. 0704-0188			
1. CONTRACTOR CH2M HILL Plateau Remediation Company			2. CONTRACT a. NAME: Plateau Remediation Contract b. NUMBER: RL14788 c. TYPE: CPAF d. SHARE RATIO:						3. PROGRAM a. NAME: PARS II - RL-0041.C1 Base Funded Nuc Fact D&D River Corr b. PHASE: Plateau Remediation Contract c. EVMS ACCEPTANCE: NO YES X 9/18/2009					4. REPORT PERIOD a. FROM: 2018/10/01 b. TO: 2018/10/21							
b. LOCATION: Richland, WA																					
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			BUDGETED COST FOR WORK SCHEDULED (NON - CUMULATIVE)																		
ITEM (1)	BCWS CUM TO DATE (2)	BCWS FOR REPORT PERIOD (3)	SIX MONTH FORECAST						FY09-13 (10)	FY14 (11)	FY15 (12)	FY16 (13)	FY17 (14)	FY18 (15)	FY19 (16)	UNDISTRIB BUDGET (17)	TOTAL BUDGET (18)				
			+1 Nov-18 (4)	+2 Dec-18 (5)	+3 Jan-19 (6)	+4 Feb-19 (7)	+5 Mar-19 (8)	+6 Apr-19 (9)													
a. PM BASELINE (BEGIN OF PERIOD)	68,921	0	0	0	0	0	0	0	0	0	0	3,497	47,591	17,833	0	0	68,921				
b. BASELINE CHANGES AUTH DURING REPORT PERIOD																					
RL_0041_C1.05.02 618-10 Burial Ground																					
None at this time												0	0	0	0	0					
RL_0041_C1.05.03 316-4 Waste Site																					
None at this time												0	0	0	0	0					
RL_0041_C1.05.04 600-63 Waste Site																					
None at this time												0	0	0	0	0					
c. PM BASELINE (END OF PERIOD)	68,921	0	0	0	0	0	0	0	0	0	0	3,497	47,591	17,833	0	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 / 10 / 01	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE				b. TO (YYYYMMDD) 2018 / 10 / 21	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE <div>NoXYes</div>		(YYYYMMDD) 2009 / 09 / 18			
5. Evaluation									
Direct Projects									
	Budget	Earned	Actuals	SV in \$	SV in %	CV in \$	CV in %	SPI	CPI
Current:	0.0	0.0	24.6	0.0		-24.6	0	0	0.00
Cumulative:	68,920.9	68,920.9	46,557.5	0.0	0.0%	22,363.4	32.4%	1.00	1.48
	BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:	68,920.9	46,557.5	22,363.4	32.4%	0.00	0			
Explanation of Variance/Description of Problem:									
<p>CURRENT MONTH</p> <p>The current month schedule variance is within reporting thresholds.</p> <p>The current month cost variance is within reporting thresholds.</p> <p>CONTRACT TO DATE</p> <p>The cumulative schedule variance is within reporting thresholds.</p> <p>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.</p> <p>VARIANCE AT COMPLETION</p> <p>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.</p> <p>IMPACTS</p> <p>There are no current impacts to the project schedule or cost.</p>									
Corrective Action:									
<p>Corrective Action:</p> <p>None.</p>									
Monthly Summary (to include technical causes of VARs, Impacts) and Corrective Action(s):									
<p>1. Schedule Margin Analysis: N/A, pending definitization of the scope.</p> <p>2. IMS Data dictionary Changes: None in the month of October.</p> <p>3. Forecast Schedule with No Baseline: None in the month of October.</p> <p>4. UB Balance: N/A</p> <p>5. Negative ACWP: Negative actuals in multiple accounts due to accrual reversals and corrections from FY2018.</p> <p>6. EAC Analysis: Best Case: \$46.6M; Most Likely: \$46.6M; Worst Case: \$46.6M. 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> <p>7. Negative CV > VAC: N/A</p> <p>8. MR Transactions: None in the month of October.</p> <p>9. Freeze Period Changes: None in the month of October.</p> <p>10. Retroactive Changes: None in the month of October.</p> <p>11. EVT Changes: None in the month of October.</p>									