

Monthly Performance Report

February 2020

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

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

CH2MHILL
Plateau Remediation Company

P.O. Box 1600
Richland, Washington 99352

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Date Published
March 2020

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CH2MHILL
Plateau Remediation Company
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L. Ty Blackford
President and
Chief Executive Officer

Monthly Performance Report

U.S. Department of Energy Contract
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February 2020
CHPRC-2020-02, Revision 0

CONTENTS

EXECUTIVE SUMMARY 2

TARGET ZERO PERFORMANCE..... 5

KEY ACCOMPLISHMENTS 6

MAJOR ISSUES 6

EARNED VALUE MANAGEMENT 7

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) has advanced cleanup throughout the Hanford Site during February. Major accomplishments included the following:

- **Soil and Groundwater Remediation Project**

(S&GRP): One extraction well in the 100-KR-4 Operable Unit (OU) was completed in February. The 200-ZP-1 Ringold A Sampling Analysis Plan (SAP), Revision 0, was issued in February to support characterization of the deeper portion of the 200-ZP-1 aquifer. As described in the SAP, this is a key element to determine the appropriate remedy for the deeper contamination within the 200-ZP-1 groundwater OU. The preparation of the 200-CP-1 Remedial Investigation/Feasibility Study work plan was initiated in February and is on an accelerated schedule to meet the *Hanford Federal Facility Agreement and Consent Order* milestone date of September 30, 2020, for transmittal of the draft document to the State of Washington, Department of Ecology for review. This high profile document lays the foundation for how the Plutonium Uranium



A flatbed truck was outfitted with a skid and 500-gallon tank to allow crews to pump and transport small volumes of purge water to support groundwater sampling efforts. The innovative setup not only increases efficiency and flexibility, but also cuts costs.

Extraction Plant (PUREX) canyon will be investigated and eventually remediated. The project continues trending toward a record year for the volume of groundwater treated.

- **Plutonium Finishing Plant (PFP) Closure Project:** Crews completed loadout of Remote Mechanical A line debris, the remaining step in completion of demolition of PFP's main processing facility, changing the landscape at the Hanford Site and marking a truly historic accomplishment in the cleanup mission. Crews also completed size reduction and loadout of ancillary facilities mobile office MO671 and HS47, as well as other miscellaneous structures. Moving into final debris disposition, crews began initial Plutonium Reclamation Facility (PRF) rubble loadout, including completion of a management observation report on the loadout process and readiness. Shipped 94 roll on/roll-off truck containers of final phase demolition debris to the Environmental Restoration Disposal Facility (ERDF) for permanent disposal, including 10 Contaminated Equipment – Special Package Authorization shipments of containers of PRF debris.
- **K Basins Operations:** The Garnet Filter Media Removal System moved forward on the Readiness Self-Assessment (RSA) that will begin in April by completing the plan of action, RSA evaluation criteria, and identified and scheduled the assessment team. Essential electrical connections and power tie-ins were completed, 900 gallons of water was drained from the system, and flushing of the lines was initiated. Soil remediation work continued with excavation activities at the 116-KE-2 Waste Site, and initiation of remediation excavation work on the 100-K-47:2 Waste Site, with 441 roll on/roll-off truck containers of contaminated soil sent to ERDF for disposal. Demolition of the 166KE fuel storage bunker continued, with the demolition of the west bay tank and 166KE Annex completed. Completed the 166KW Structural Integrity report, which verified that the roof is safe to support rooftop access by personnel.
- **Waste and Fuels Management Project:** The management of cesium and strontium capsule (MCSC) project subcontractor responsible for the construction of the capsule storage area completed all pre-mobilization submittals. At the Maintenance and Storage Facility (MASF), another subcontractor completed installation of the MCSC project capsule handling equipment mockup structure floor. At the Waste Encapsulation and Storage Facility, installation of the replacement canyon crane rail brackets was completed. At the Canister

Storage Building, the team performed multi-canister overpack (MCO) sampling proficiency demonstrations using the MCO shield plug mockup. At the Central Waste Complex (CWC), repair or replacement of 13 waste storage box covers was completed. The transuranic (TRU) program continues to perform the enhancement of acceptable knowledge on TRU waste streams. The second of 10 waste streams was completed.

- **River Risk Management Project (RRMP):** The 324 Building Disposition Project continued resumption activities following a stop work in November 2019. Crew training, personal protective equipment evaluation, and proficiency demonstrations continued. During this resumption period, non-contamination area and minimum safe activities continued. The project completed steam coil repairs in the 324 Building heating system, completed cell dam test frame installation at MASF to support cell dam installation practice and completed structural improvements to the exterior wall on the southwest side of the 324 Building. At the Integrated Disposal Facility (IDF), the public comment period ended for the facilities Resource Conservations and Recovery Act of 1976 permit modification application to add secondary waste disposal. Work started on supporting the regulator to respond to the public comments.
- **Central Plateau Risk Management Project:** Crews abated 486 feet of asbestos insulation on above ground steam lines in the 200 East Area. At the 224B Facility, personnel initiated exterior asbestos abatement and mechanical isolations to support the cold and dark process and finalized the 224B Facility Removal Action Work Plan. At PUREX North, personnel completed radiological characterization of facilities 2714A, 214A, 210A, and the interior of 2701AB. Finally, crews completed installation and setup of the waste container transfer area at the Reduction and Oxidation (REDOX) Canyon Facility.

The President's Zero Accident Council (PZAC) meeting for February was hosted by Prime Contracts and Project Integration. The three main ideas were:

- Change happens – wanted and unwanted.
- Physical and emotional reactions – including the effects of stress on the heart.
- Be kind to self and others – focus on self-care and care of others.

Four “Thinking Target Zero” bulletins were published to convey important occupational, safety, health and environmental messages:

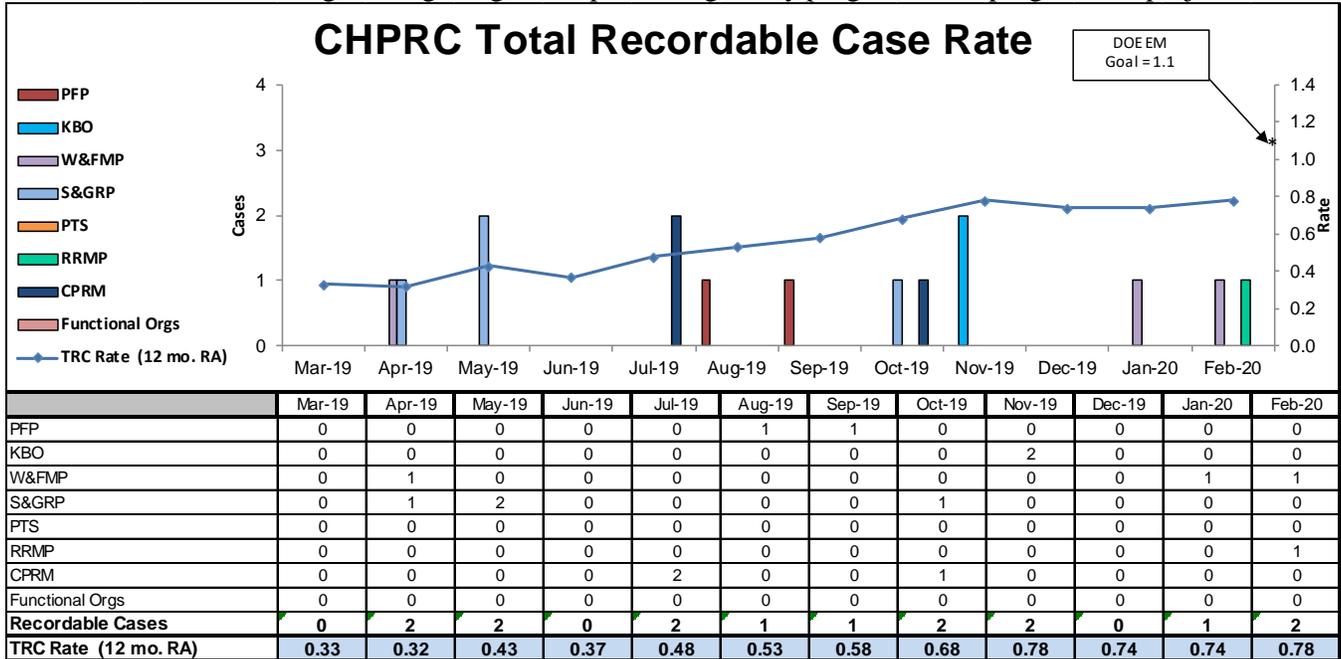
- Heart Health Month.
- Recognize Driving Distractions.
- EMS 2020 Aspects.
- Share the Road.

Weekly Safety Tailgate briefing packages communicated relevant topics and safety information to the workforce:

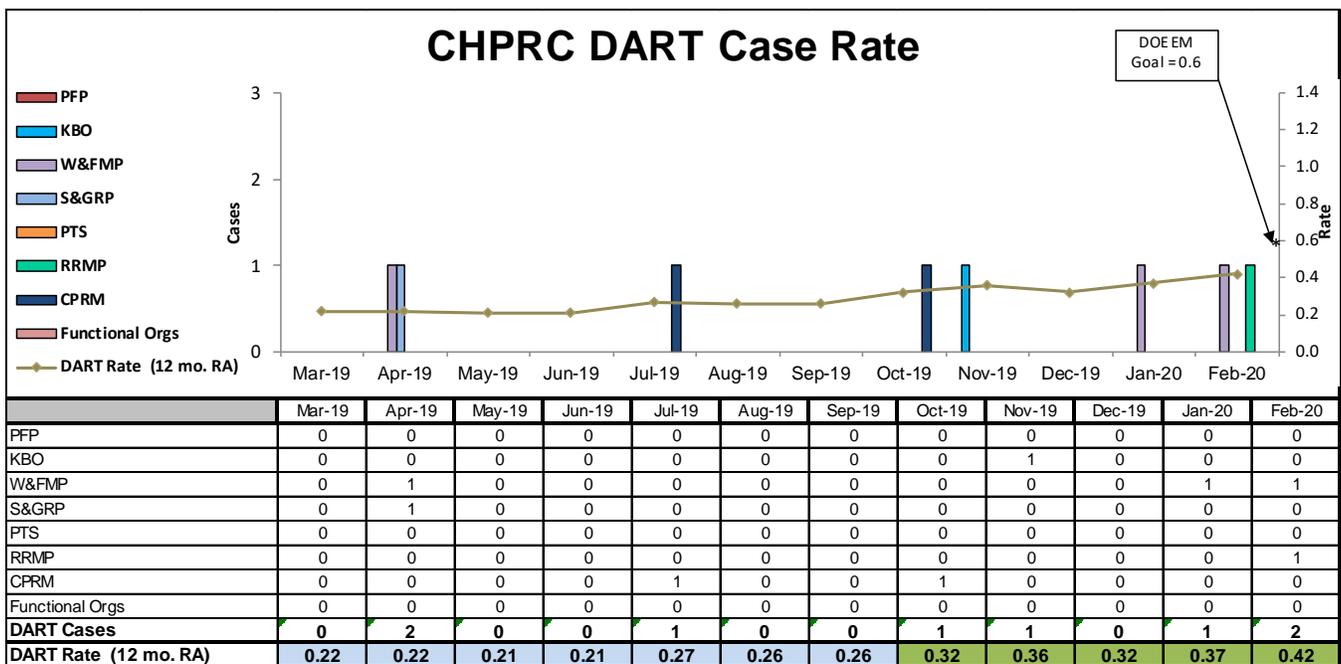
- Four lessons learned:
 - OPEXShare: 2020-SGRP-0001, Legacy Equipment May Contain Legacy Issues.
 - OPEXShare: INL-2020-0002, Hurrying is An At-Risk Behavior That Can Lead to Undesired Consequences.
 - OPEXShare: 2020-RRMP-0002, Rheostat Contacted During Relocation of Grout Pump.
 - OPEXShare: WRPS-WF-2020-001, Use a ‘Dress Verifier’ Prior to Commencing High Risk Work.
- Injuries.
- Weekly ethics moments.
- Vehicle events.
- Heart health month.
- Medications at work.
- Drive responsibly poster.
- Safe driving reminders.
- Exposure assessments.
- CHPRC safety focus.
- Dosimeter reminder.
- PZAC takeaways.
- Radiological survey changes.

TARGET ZERO PERFORMANCE

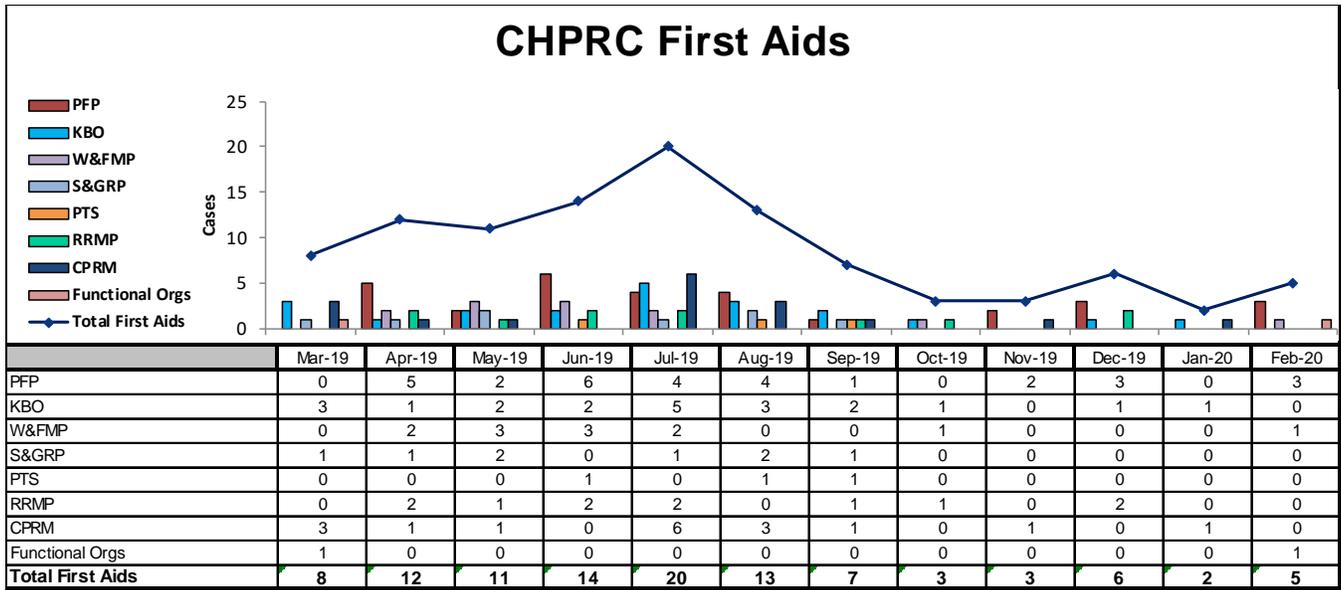
CHPRC continued focusing on integrating and implementing safety programs in all program and project areas.



Total Recordable Injury Case Rate: The 12-month rolling average rate of 0.78 is based on a total of 15 recordable injuries. February had two reported recordable cases.



Days Away, Restricted, or Transferred (DART) workdays case rate: The 12-month rolling average rate of 0.42 is based on a total of eight days away cases. February had two reported DART cases.



First Aid case summary: CHPRC reported five First Aid cases in February. The contributors were two abrasions/bruises/contusions, one sprain/strain/pain, one cut/laceration/puncture, and one undescribed/precautionary injury.

KEY ACCOMPLISHMENTS

Projects

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

Project Services and Support

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

MAJOR ISSUES

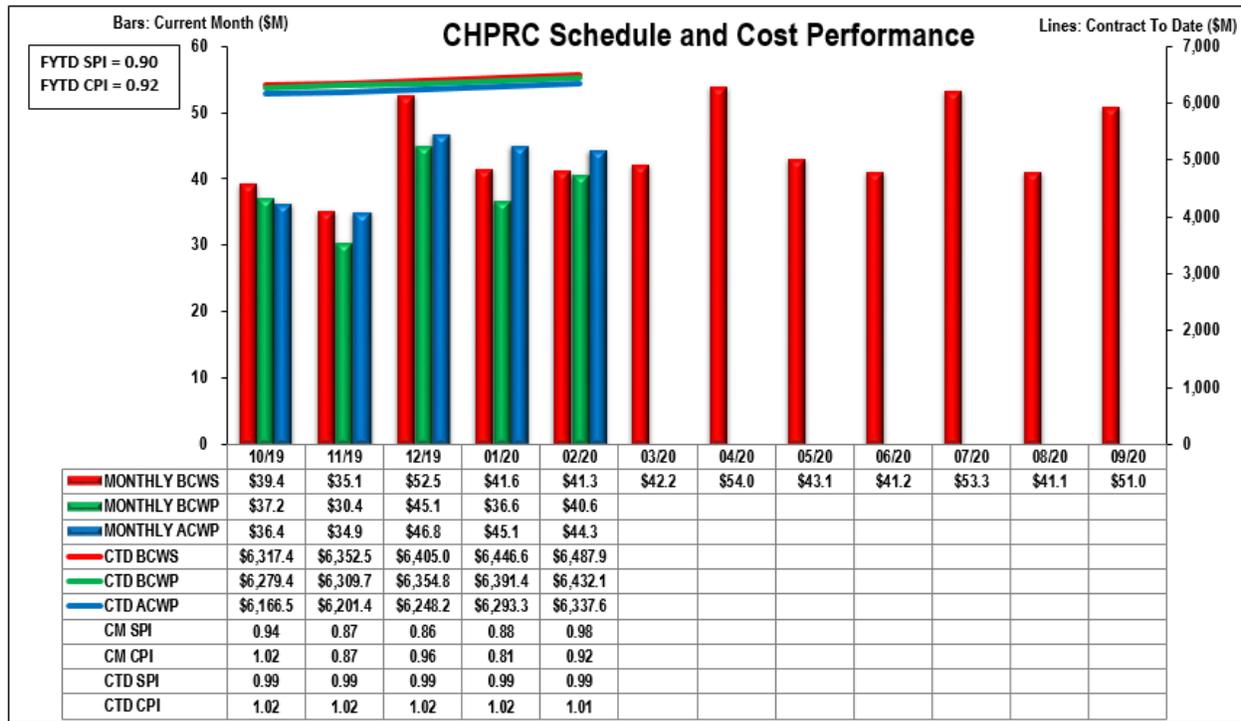
Projects

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

Project Services and Support

- No major issues to report for the current month.

EARNED VALUE MANAGEMENT



	\$M						\$M					\$M		
	Current Period			Contract to Date			Contract to Date			Contract Period				
	Budgeted Cost	Actual Cost	Variance	Budgeted Cost	Actual Cost	Variance	BAC	EAC	Variance					
RL-0011 - Nuclear Materials Stab & Disp PFP	3.0	1.7	4.9	(1.3)	(3.2)	1,143.3	1,126.4	1,227.8	(17.0)	(101.4)	1,143.6	1,239.7	(96.2)	
RL-0012 - SNF Stabilization & Disposition	-	-	0.0	-	(0.0)	759.6	759.6	729.8	(0.0)	29.8	759.6	729.8	29.8	
RL-0013 - Solid Waste Stab & Disposition	15.7	15.7	15.2	(0.0)	0.4	1,552.6	1,542.7	1,459.0	(9.9)	83.7	1,677.0	1,601.0	76.1	
RL-0030 - Soil & Water Rem-Grndwtr/Vadose	8.0	9.8	8.4	1.9	1.4	1,676.3	1,671.7	1,622.3	(4.6)	49.4	1,757.6	1,702.7	54.9	
RL-0040 - Nuc Fac D&D - Remainder	5.0	4.6	5.0	(0.3)	(0.3)	587.8	581.2	564.9	(6.7)	16.3	625.8	612.0	13.8	
RL-0041 - Nuc Fac D&D - RC Closure Project	9.4	8.5	10.5	(0.9)	(2.1)	738.3	720.6	708.5	(17.7)	12.1	817.3	800.9	16.5	
RL-0042 - Nuc Fac D&D - FTF Project	0.2	0.3	0.3	0.1	0.1	30.0	30.0	25.3	(0.0)	4.7	32.9	28.4	4.4	
(Values are rounded to the nearest \$0.1M)	Total	41.3	40.6	44.3	(0.6)	(3.7)	6,487.9	6,432.1	6,337.6	(55.8)	94.5	6,813.8	6,714.5	99.3

Performance Summary

CHPRC continues to track completion of the contract within budget. Currently, a variance at completion of \$99.3 million is projected, with an additional \$48.4 million of management reserve (MR), for a total positive variance of \$147.7 million. For February, the project was 1.5 percent behind schedule and 9.0 percent over planned cost. Contract to date, the project was 0.9 percent behind schedule and 1.5 percent under planned cost.

The current month (CM) negative cost variance is primarily due to PFP and RRMP. At PFP, the performance on 236-Z rubble loadout has been slower than planned due to heavy accumulation of water. A change recommended by craft personnel in the demolition approach the last week of February was initiated and has shown early signs of improved performance. At RRMP, the 324 Facility negative cost variance is primarily due to the November 14, 2019, contamination event resulting in a management stop work in radiologically contaminated areas. Meanwhile, resumption and corrective action plans are being worked, while the project incurs costs without progress on planned scope.

The CM negative schedule variance is also primarily due to PFP and RRMP; however, these variances were offset by schedule recovery in S&GRP for the delivery of the shop drawings for the 200 West Area air stripper package.

FUNDING ANALYSIS

FY2020 Funds vs. Fiscal Year Spend Forecast (\$M)

PBS	Project	FY2020		Variance
		Projected Funding	Spending Forecast	
Estimate at Complete				
RL-0011	Nuclear Materials Stabilization and Disposition	29.5	35.2	(5.6)
RL-0012	Spent Nuclear Fuel Stabilization and Disposition	0.6	(0.0)	0.6
RL-0013	Waste and Fuels Management Project	198.8	202.8	(4.0)
RL-0013	Management of Cesium and Strontium Capsules	14.3	0.6	13.7
RL-0030	Soil, Groundwater and Vadose Zone Remediation	134.7	123.9	10.8
RL-0040	Nuclear Facility D&D, Remainder of Hanford	93.3	92.5	0.7
RL-0041	Nuclear Facility D&D, River Corridor	150.9	150.6	0.3
RL-0042	Fast Flux Test Facility Closure	4.8	4.6	0.2
Total Estimate at Complete		626.8	610.1	16.7

Funds/Variance Analysis

Fiscal Year (FY) 2020 projected funding of \$626.8 million remains unchanged from last month. The spending forecast decreased \$1.2 million primarily in RL-0030 for lower-than-anticipated subcontract cost and scope pushing into FY2021.

BASELINE CHANGE REQUESTS

In February, CHPRC approved and implemented eight Baseline Change Requests (BCRs) into the Performance Measurement Baseline (PMB) budget. Six of the eight BCRs impacted the PMB budget. Each change request is identified in the following table:

Change Request #	Title	PBS	Summary of Change
BCR-013-20-012R0	<i>Change in Approach for NDA Box Campaign to use CHPRC Labor Rather than Subcontractor</i>	RL-0013	This BCR re-examined the use of subcontract resources to develop a statement of work and request for proposal (RFP) to acquire an offsite contractor to perform portable assay of 15 large waste boxes in the CWC Outer Storage Area. It was determined that in-house resources were available to perform this action. This BCR decreased the PMB by \$590.6K.
BCR-013-20-014R0	<i>Remove IDF Raw Water Installation Scope</i>	RL-0013	Due to changes of design requirements, this BCR eliminated the need for additional raw water lines, two truck fill stations and two hydrants for the IDF project. This BCR decreased the PMB by \$585.8K.
BCR-030-20-010R0	<i>RL-030 Scope Reductions</i>	RL-0030	This BCR removed planned scope that will not be performed in FY2020 to align with the FY2020 Execution Integrated Priority List (IPL) Revision 2A, as directed by RL in CHPRC correspondence No. 1904079.1, dated January 23, 2020. Specific activities identified for deletion from the FY2020 PMB were agreed to during collaborative meetings between CHPRC S&GRP and RL personnel on January 23, 2020. This BCR decreased the PMB by \$6,466.1K
BCR-040-20-002R0	<i>Incorporate Additional 221U Asbestos Abatement and Chemical Draining</i>	RL-0040	This BCR incorporated additional 221U scope, which includes abatement of any remaining Thermal System Insulation asbestos in the Sample Gallery, draining and disposition of any residual chemicals, and treatment of chemicals at Perma-Fix Northwest (PFNW). Personnel previously supporting the REDOX scope that have not been assigned elsewhere will be reassigned to perform this scope. This BCR increased the PMB by \$1,108.6K.
BCR-040-20-003R0	<i>Incorporate Procurement and Installation of the Personnel Trailers at B-Plant and PUREX</i>	RL-0040	This BCR re-planned procurement and installation of trailers to meet the new infrastructure requirements due to the change of personnel assignments in the wake of the work stoppage at REDOX. This BCR increased the PMB value by \$584.9K.

Change Request #	Title	PBS	Summary of Change
BCR-041-20-005R0	<i>Add FY2020 105KE ISS Scope</i>	RL-0041	This BCR implements the continuation of the Interim Secure Storage (ISS) of 105KE Reactor preparation activities, as directed in the revised Project Direction Notice to incorporate the FY2020 Execution IPL Revision 2A, as authorized in email Correspondence 1904079.1, <i>Re: AMRP Execution IPL Rev 2 - Final</i> , dated February 3, 2020. The project team will develop: a statement of work, bid documents, prepare the RFP, obtain and evaluate bid proposals, prior to the award of the fabrication and construction of the 105KE ISS steel structure. At this time, no action beyond proposal review will be performed. Additional scope also includes preparation of an RFP for the site preparation and installation of construction support trailers, with electrical and communication connectivity. Electrical hookup to be performed by Mission Support Alliance, Inc. resources. As the construction project spans multiple fiscal years, the solicited quotes will aid in out-year planning. This BCR increased the PMB by \$372.3K.
BCR-041-20-006R0	<i>Correction to FY2020 RL-105KW Facility Deactivation Planning</i>	RL-0041	This BCR corrected the time-phasing error incurred due to the replanning of construction resources outlined in BCR-PRC-20-007R0. Corrective action taken involved zeroing out the resources in the existing activities and adding two new activities with the same resource quantities to align the cost and schedule baselines together. This BCR did not change the PMB value.
BCRA-PRC-20-008R0	<i>HPIC Updates February 2020</i>	RL-0011 RL-0030 RL-0040 RL-0041	This Administrative BCR documented HPIC changes made in February 2020 performance period prior to archive. These changes include new work packages, cost account charge number requests, and control account manager changes as documented in the HPIC forms. This BCR did not change the PMB value.

The allocated (distributed) budget decreased \$5,576.7K in February.

Undistributed Budget (UB) Activity

BCR Number	Title	PBS	Fiscal Year	UB
N/A	N/A	N/A	2020	\$0

There was no change to UB in February.

Management Reserve (MR) Activity

BCR Number	Title	PBS	Fiscal Year	MR
N/A	N/A	N/A	2020	\$0

There was no change to MR in February.

Fee Activity

BCR Number	Title	PBS	Fiscal Year	Fee
N/A	N/A	N/A	2020	\$0

There was no change to fee in February.

The PMB values of change requests are summarized by FY in the following tables. For a list of change requests that have impacted the PMB budget by FY, see the Format 3 Report in Appendix A.

February 2020 Summary of Changes (\$M)

	FY 2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FYs 2014-2018	FY2019	FY2020	Contract Period Total	Total PMB
January 2020 Estimate											
PMB	3,391.5	391.7	471.3	504.8	485.0	470.6	2,323.5	563.1	541.3	6,819.4	6,819.4
MR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.4	48.4	48.4
Fee	155.5	14.3	14.5	27.8	10.6	18.9	86.1	36.5	0.0	278.1	278.1
Total	3,547.0	406.0	485.8	532.6	495.6	489.5	2,409.6	599.5	589.7	7,145.8	7,145.8
February 2020 Change											
PMB											
Change to PMB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.6	-5.6	-5.6
MR											
Change to MR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fee											
Change to Fee	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.6	-5.6	-5.6
February 2020 Estimate											
PMB	3,391.5	391.7	471.3	504.8	485.0	470.6	2,323.5	563.1	535.8	6,813.8	6,813.8
MR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.4	48.4	48.4
Fee	155.5	14.3	14.5	27.8	10.6	18.9	86.1	36.5	0.0	278.1	278.1
Total	3,547.0	406.0	485.8	532.6	495.6	489.5	2,409.6	599.5	584.1	7,140.2	7,140.2

Changes to/Utilization of Management Reserve in February 2020 (\$M)

	FY2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2014-2018	FY2019	FY2020	Total
January 2020 MR Totals										
RL-0011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	5.5
RL-0012	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	5.4
RL-0013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	8.4
RL-0030	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	3.6
RL-0040	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5	11.5
RL-0041	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.6	13.6
RL-0042	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5
Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.4	48.4
February 2020 MR Changes/Utilization										
RL-0011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RL-0012	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RL-0013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RL-0030	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RL-0040	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RL-0041	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RL-0042	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
February 2020 MR Totals										
RL-0011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	5.5
RL-0012	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	5.4
RL-0013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	8.4
RL-0030	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	3.6
RL-0040	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5	11.5
RL-0041	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.6	13.6
RL-0042	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5
Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.4	48.4

SELF-PERFORMED WORK

Business structure information documents ongoing compliance with the requirements of the contract Section H.20 clause “Self-Performed Work.”

Contract-to-Date Actual Awards & Mods (\$M) 10/1/2008 - 02/29/2020					
Reporting Category					
	\$ Value	%	Goal %		
SB	\$1,724.77	56.69%	49.3%	PRC clause H.20b small business requirement ≥ 17% of CHPRC Contract Price performed by SB.	
SDB	\$323.46	10.63%	8.2%		
SWOB	\$307.51	10.11%	7.5%		
HUB	\$99.74	3.28%	2.2%		
VOSB	\$265.89	8.74%	3.5%	CHPRC Contract Value: \$6,596.68	
SDVO	\$172.84	5.68%	1.3%	SB actual: \$1,724.77	
NAB	\$104.52	3.44%	N/A	SB Performed %: 26.15%	
Large	\$815.29	26.80%	N/A	PRC clause H.20a max self performed requirement ≤ 65% of Contract Price Self Performed	
GOVT	\$5.49	0.18%	N/A		
GOVT CONT	\$483.22	15.88%	N/A	CHPRC Contract Value: \$6,596.68	
EDUCATION	\$0.17	0.01%	N/A	CHPRC Self Performed: \$3,846.55	
NONPROFIT_	\$4.45	0.15%	N/A	CHPRC Self Performed %: 58.31%	
FOREIGN	\$9.22	0.30%	N/A		
Total	\$3,042.62	100.00%	N/A		

Notes:

1. Since the contract award in October 2008, CHPRC has subcontracted more than \$3.0 billion in goods and services, with more than 56 percent going to small businesses. All subcontracting goals have been exceeded.
2. Approximately 91 percent of the total dollars arise from service and staffing contracts and contract amendments, with 6 percent of the remaining expenditures arising from PCard purchases and 3 percent from the balance in purchase orders for materials and equipment.
3. Data are 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
J.12/C.2.2, C.2.3	PBS-11, <i>Plutonium Finishing Plant Closure Project</i> PBS-13, <i>Solid and Liquid Waste Treatment and Disposal</i>	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, acts as signatory on the shipping papers and ensures compliance with DOE Manual 460.2-1, <i>Radioactive Material Transportation Practices Manual for Use with DOE O 460.2A</i> . RL arranges for Commercial Motor Vehicle Safety Alliance Level VI Vehicle Inspections and verifies that the government drivers meet the applicable U.S. 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.
J.12/C.2.3.6	PBS-13, <i>Transuranic Waste Certification</i>	Waste Isolation Pilot Plan (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-Headquarters 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 and 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
a Jacobs company



J. L. Casper
Vice President for
Plutonium Finishing Plant
Closure Project

February 2020
CHPRC-2020-02, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

In February, the Plutonium Finishing Plant (PFP) Closure Project team completed loadout of Remote Mechanical A line debris, the remaining step in completion of the demolition of the PFP main processing facility, changing the landscape at the Hanford Site and marking a truly historic accomplishment in the cleanup mission. Crews also completed size reduction and loadout of ancillary facilities mobile office (MO) 671 and HS47 as well as other miscellaneous structures. Moving into final debris disposition, crews began initial Plutonium Reclamation Facility (PRF) rubble loadout, including completion of a Management Observation Report on the loadout process and readiness. Ninety-four containers of final-phase demolition debris were shipped to the Environmental Restoration Disposal Facility (ERDF) for permanent disposal, including 10 Contaminated Equipment – Special Package Authorization shipments of PRF debris.

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 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	4	67 structures
Non-radioactive Waste Shipped	0	89.8 m ³
Transuranic/Transuranic Mixed (TRU/TRU-M) Shipped	0	5,014 m ³
Low-level Waste (LLW)/Mixed (M)LLW Shipped	658 m ³	23,045 m ³

EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
20-EMS-PFP-OBJI-P1	Complete <i>Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)</i> removal action at the PFP Complex.	Performs actions for final PFP turnover to surveillance and maintenance.	7/30/2020	25%

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	2	N/A
First Aid Cases	3	30	<p>2/03/2020 – Employee pinched a finger while tarping an ERDF container. Employee noticed blood on the left middle finger upon removing the worker’s glove. Worker was taken to HPM Corporation (HPMC) for evaluation, provided zone dressing, and released back to work without restriction. (25476)</p> <p>2/25/2020 – Employee struck lower left leg (shin) on a protruding railroad tie causing an abrasion while removing tarps from ERDF containers. Worker was taken to HPMC, provided over-the-counter medicine, and released back to work without restriction. (25493)</p> <p>2/25/2020 – Employee experienced soreness in the lower left leg after tarping/untarping ERDF containers. Employee over extended while reaching during tarping/untarping activities. Worker was taken to HPMC, provided elastic bandage, and released back to work without restriction. (25494)</p>
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

RL-0011 Accomplishments:

- Completed preparations for PRF rubble loadout, including grooming traveling paths, installing berms to control water flow, and placing gravel and dirt.
- Crews began initial PRF rubble loadout, including a completion of a Management Observation Report on the loadout process and readiness.
- Demolished ancillary facilities and moved the debris into the demolition pile. Facilities include connexes 240021, 240030, 240031, 240036, 240041, 240046, 113994, 652760, 4015329, 652940, 100265, 2014506, 2009801, and 224192; cargo containers CC1194, CC1046, MCC007, and CC0782; MO671 (MODEC) and MO605; and hazardous storage facility HC047 and the 234-5Z Facility.
- Shipped 94 containers of final-phase demolition debris to ERDF for permanent disposal, including 10 containers of PRF rubble debris.

MAJOR ISSUES

Issue

The project’s fiscal year (FY) 2020 forecast reflects spending approximately \$5.6 million more than the entire allotted carryover balance. Additional funding is required in FY2020 to complete PFP demolition. The current forecast reflects that projected funding would not be exceeded until about April 2020.

Corrective Action

Resolve funding shortfall.

Status

CH2M HILL Plateau Remediation Company (CHPRC) is working with the U.S. Department of Energy (DOE), Richland Operations Office (RL), to address this issue and anticipates resolving it prior to April 2020 so that funding limitations will not impact project completion.

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-0011										
Explanation of major changes to the project monthly stoplight chart:										
Risk PFP-P-002: “Unavailable Resources” and PFP-P-014: “Bump and Roll, Labor Assets Management Program (LAMP), or Other Contractor Hiring of Bargaining Unit Employees Affecting Productivity,” were removed from the stoplight chart in February.										
Realized Risks (Risks that are currently impacting project cost/schedule)										
No realized risks identified in February.										
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)										
No critical risks identified in February.										
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)										
No high threat risks identified in February.										
FY2020 Key Risks										
PFP-P3-003: “Weather Impacts During 234-5Z Demolition”	Inclement weather, including moderate winds, low or high temperatures, above average snowfall or thunderstorms will result in in-scope unplanned work and schedule impacts to the project. Risk Handling Strategy: Control Probability: Low (10% to 25%) Worst Case Impacts: \$0, 8 days			Risk Trigger: High winds and cold weather may impact the project in the fall/winter seasons. Average winds above 15 miles per hour (mph) shut down demolition activities, and average winds above 30 mph require additional surveys. Cold weather prevents the foggers from operating and, therefore, shuts down fieldwork activities. <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 5px;"> <thead> <tr> <th style="width: 70%;">Mitigation Action(s)</th> <th style="width: 15%;">FC Date</th> <th style="width: 15%;">%</th> </tr> </thead> <tbody> <tr> <td>Install heat trace and installation on fixative tanks</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> Mitigation Assessment: Demolition of 234-5Z was completed in February. This risk is no longer a key risk for the project and will be removed from the stoplight chart prior to March reporting.	Mitigation Action(s)	FC Date	%	Install heat trace and installation on fixative tanks	Complete	100
Mitigation Action(s)	FC Date	%								
Install heat trace and installation on fixative tanks	Complete	100								

Unmitigated Risk Impacts	Assessment		Comments															
	Month	Trend																
RL-0011																		
<p>PFP-P4-002: “Weather Impacts During 236-Z Demolition”</p> <p>Inclement weather, including moderate winds, low or high temperatures, and above average snowfall or thunderstorms will result in in-scope unplanned work and schedule impacts to the project.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Low (10% to 25%) Worst Case Impacts: \$0, 30 days</p>	●	↔	<p>Risk Trigger: High winds and cold weather may impact the project in the winter and spring seasons. Average winds above 15 mph shut down demolition activities, and average winds above 30 mph require additional surveys. Cold weather prevents the foggers from operating and, therefore, shuts down fieldwork activities.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Install heat trace and installation on fixative tanks.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p>Mitigation Assessment: No major changes in February. A winter preparedness plan was developed for PFP to mitigate impacts from cold weather. Heated tanks have been purchased and installed to ensure that a ready supply of fixative is always available in the demolition zone. Wind events continue to impact the project, including two days of work control zone restrictions due to high winds or expected high winds in February.</p>	Mitigation Action(s)	FC Date	%	Install heat trace and installation on fixative tanks.	Complete	100									
Mitigation Action(s)	FC Date	%																
Install heat trace and installation on fixative tanks.	Complete	100																
<p>PFP-P-004: “Stop Work From Concerned Workers”</p> <p>Concerned workers can implement 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.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Medium (26% to 74%) Worst Case Impacts: \$0, 16 days</p>	●	↔	<p>Risk Trigger: During PFP demolition activities, an increase in stop works could result in delays.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Update communications as positions change.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Provide new maps with entry/exit instructions when boundaries are revised.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Encourage additional worker involvement.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Increase frequency of post-job reviews.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No major changes in February. Increased communication and worker involvement to avoid confusion and concern to minimize stop works have continued; stop works may impact the project schedule going forward. One stop work was called in February.</p>	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																
Unassigned Risks (Pending ownership of identified threats/opportunities)																		
No unassigned risks identified in February.																		

PROJECT BASELINE PERFORMANCE Current Month (CM) (\$M)

WBS 011/RL-0011 Nuclear Matl Stab & Disp PFP	Budgeted Cost of Work Scheduled (BCWS)	Budgeted Cost of Work Performed (BCWP)	Actual Cost of Work Performed (ACWP)	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	3.0	1.7	4.9	(1.3)	-44.3%	(3.2)	-191.1%

Numbers are rounded to the nearest \$0.1 million.

CM Schedule Variance: (-\$1.3M/-44.3%)

The unfavorable schedule variance is due to the lagging demolition of 234-5Z and 236-Z. The project was scheduled to be slab-on-grade in December 2019. Rubble loadout of 236-Z began in February 2020. The behind schedule condition is due to delays in sizing 234-5Z rubble, weather events and a conservative approach to demolition and loadout. In the current month, the project experienced accumulation of water during 236-Z rubble loadout. A change recommended by craft personnel in the demolition approach the last week of February was initiated and has shown early signs of improved performance.

CM Cost Variance: (-\$3.2M/-191.1%)

The unfavorable cost variance is due to slower than planned performance on 236-Z demolition. Due to the conservative approach to demolition, weather events and heavy accumulation of water, progress has been hindered. A change recommended by craft personnel in the demolition approach the final week of February was initiated and has shown early signs of improved performance.

Contract to Date (CTD) (\$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	1,143.3	1,126.4	1,227.8	(17.0)	-1.5%	(101.4)	-9.0%	1,143.6	1,239.7	11.9	(96.2)

Numbers are rounded to the nearest \$0.1 million.

CTD Schedule Variance: (-\$17.0M/-1.5%)

The CTD schedule variance is within threshold.

CTD Cost Variance: (-\$101.4M/-9.0%)

The negative CTD cost variance is primarily a result of unplanned costs to support implementation of PFP schedule efficiency initiatives (i.e., foaming, Perma-Fix Northwest [PFNW] size reduction support, PremAire Breathing System); increased training costs of additional PFP radiation control technicians (RCTs) and deactivation and decommissioning (D&D) workers; additional resources to recover schedule from asbestos-removal activities and support the unplanned asbestos removal (about 10,000 feet); unplanned shipping materials (waste shipping containers TL-1800s, SLB2s, IP-1 bags, etc.) required for TRU waste disposition loadout activities; and unplanned work to reconfigure the high-density polyethylene (HDPE) water loop to support the new radiological boundaries.

Contributors to the negative cost variance include resumption actions associated with the December 2017 contamination event encompassing fixative applications, performing radiological surveys, revising radiological postings, implementing infrastructure modifications, and performing stabilization activities. Reassignment of CHPRC personnel to support the radiological control area (RCA) and programmatic assessments also contributed to the variance.

After resumption activities were completed, a deliberate and in series approach has resulted in slower progress on demolition, size reduction, and waste loadout. Process improvements for planning and training activities to replenish D&D and RCT staffing support have additionally increased costs.

The negative cost variance was partially offset by the use of fewer breathing air suits (three per day versus five) and fewer hoses than originally planned for 242-Z entries. These reductions were the result of fewer fieldwork team members required to perform hands-on work in 242-Z due to the confined space.

In addition, recognized efficiencies contributed to the negative variance offset, including crews completing process vacuum removal in 291-Z with reduced effort; characterization results indicating lower levels of holdup, allowing for accelerated piping removal; isolations performed more efficiently by disconnecting the main electrical power from outside the 291-Z Facility versus individual isolations from within; hazardous material removal, stabilization and decontamination was more resourceful than anticipated (i.e., powerful fans used with vertical fixative flow up the stack); and additional efficiencies associated with 242-Z, 291-Z and 234-5ZA demolition.

Variance at Completion (VAC): (-\$96.2M/-8.4%)

The unfavorable VAC reflects extended hotel load and field resource costs due to delays in demolition-ready and demolition activities, as well as resumption actions associated with the December 2017 contamination event encompassing fixative applications, performing radiological surveys, and revising radiological postings, infrastructure modifications, and stabilization activities. Reassignment of CHPRC personnel to support the RCA and programmatic assessments also contributed to the variance.

Overtime used to ready the 234-5Z Building for demolition by September 2017 and unplanned work on the HDPE water loop also contributed to the unfavorable variance, which was partially offset by recognized efficiencies due to characterization data in 234-5Z, allowing piping and ducting to be left in place for demolition.

Contract Performance Report Formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST (\$M)

RL-0011 Nuclear Matl Stab & Disp PFP	FY2020		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	29.5	35.2	(5.6)

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis

Projected funding in FY2020 of \$29.5 million consists entirely of FY2019 carryover funds. The spend forecast reflects the continuation of demolition activities to achieve slab-on-grade. CHPRC is working with RL to address the projected funding shortfall and anticipates a resolution prior to the issue impacting the project.

Critical Path Analysis

The PFP critical path schedule begins with the completion of 236-Z Canyon loadout, which is anticipated by April 7, 2020, meeting the requirements for the *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) Milestone M-083-00A, "Plutonium Finishing Plant (PFP) Facility Transition and Selected Disposition Activities." Demolition completion will be followed by site stabilization and demobilization, turnover to surveillance and maintenance, and project closeout activities, completing by June 24, 2020.

MILESTONE STATUS

The following table is a one-year look ahead to project breakdown structure (PBS) RL-0011 Tri-Party Agreement enforceable milestones, nonenforceable target due dates, and commitments.

Number	Title	Due Date	Actual Date	Forecast Date	Status/Comment
M-083-00A	“Plutonium Finishing Plant (PFP) Facility Transition and Selected Disposition Activities”	9/30/2017		4/7/2020	The project began PRF rubble disposition in February, with completion forecasted for early April.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

Contract Section	Project	GFS/I	Status
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, acts as signatory on the shipping papers and ensures compliance with DOE Manual 460.2-1A, <i>Radioactive Material Transportation Practices Manual for Use with DOE O 460.2A</i> . RL arranges for Commercial Motor Vehicle Safety Alliance Level VI vehicle inspections and verifies that the government drivers meet applicable U.S. 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

DOE activities supporting the approval of ancillary facility status change forms are complete to date.

Section B

Spent Nuclear Fuel Stabilization and Disposition (RL-0012)

CH2MHILL
Plateau Remediation Company
a Jacobs company



R. M. Geimer
Vice President for
K Basin Operations

February 2020
CHPRC-2020-02, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

Sludge removal from the 105K West basin completed in fiscal year (FY) 2019. Documentation for the completion of the *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) Milestone M-016-176 was submitted to the U.S. Department of Energy (DOE), Richland Operations Office (RL) in December. There was no significant progress in February, as the project is completing administrative closeout activities.

EMS OBJECTIVES AND TARGET STATUS

None currently identified.

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis)

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

KEY ACCOMPLISHMENTS

None currently identified.

MAJOR ISSUES

None currently identified.

RISK MANAGEMENT STATUS

None currently identified.

PROJECT BASELINE PERFORMANCE

Current Month (CM)

(\$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	0.0	0.0	0.0	0.0	0.0%	(0.0)	0.0%

Numbers rounded to the nearest \$0.1 million.

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

Variance is within threshold.

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

Variance is within threshold.

Contract-to-Date (CTD)

(\$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	759.6	759.6	729.8	0.0	0.0%	29.8	3.9%	759.6	729.8	0.0	29.8

Numbers rounded to the nearest \$0.1 million.

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

The variance is within reporting thresholds.

CTD Cost Performance (+\$29.8M/+3.9%)

The variance is within reporting thresholds.

Variance at Completion (+\$29.8M/+3.9%)

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	FY2020		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	0.6	0.0	0.6

Numbers rounded to the nearest \$0.1 million.

Funds/Variance Analysis

FY2020 funding for project breakdown structure (PBS) RL-0012 is \$0.6 million. The projected funding includes carryover from FY2019 and new budget authority. The FY2020 spending forecast reflects early completion of the Sludge Retrieval and Transfer Project and aligns with the RL FY2020 Integrated Priority List.

Critical Path Analysis

All project scope is complete with the exception of closeout-related activities. The project completed Tri-Party Agreement Milestone M-016-176 ahead of the December 31, 2019, due date.

MILESTONE STATUS

The following table is a one-year look ahead of PBS RL-0012 Tri-Party Agreement enforceable milestones, non-enforceable target due dates, and commitments.

Number	Title	Due Date	Forecast Date	Status/ Comment
M-016-176	Complete sludgeremoval	12/31/2019	09/11/2019(A)	Complete

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)

CH2MHILL
Plateau Remediation Company
a Jacobs company



K. R. Shupe
Vice President for
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T. L. Hobbes
Vice President for
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M. A. Wright
Vice President for Project Technical Services

February 2020
CHPRC-2020-02, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

In the February reporting period (January 27 to February 23, 2020), the Waste and Fuels Management Project (W&FMP) maintained facilities in a safe and compliant condition. The River Risk Management Project continued to operate the Environmental Restoration Disposal Facility (ERDF) and the Integrated Disposal Facility (IDF) in a safe and compliant condition.

The following items were accomplished this month:

- The subcontractor for the capsule storage area (CSA) construction of the Management of Cesium and Strontium Capsule (MCSC) project completed all pre-mobilization submittals. The Maintenance and Storage Facility (MASF) modifications subcontractor completed installation of the MCSC mockup structure floor.
- At Waste Encapsulation and Storage Facility (WESF), installation has been completed for the replacement of the canyon crane rail brackets. Cleaning and paint removal from the 15-ton canyon crane rails was initiated.
- At the Canister Storage Building (CSB), the team performed multi-canister overpack (MCO) sampling proficiency demonstrations using the MCO shield plug mockup.
- The transuranic (TRU) program continued to perform the enhancement of acceptable knowledge on TRU waste streams. The second of 10 waste streams is complete.
- At IDF, the public comment period is complete for the facilities *Resource Conservation and Recovery Act of 1976* (RCRA) permit modification application to add secondary waste disposal. Work was started on supporting the regulator to respond to the public comments.

EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
20-EMS-WFMP-OBJ1-P1	Complete installation of MASF integrated testing mockup and demobilization	Erect mockup structure and demobilization	9/30/2020	0%
20-EMS-WFMP-OBJ2-P1	Receive three garnet filter shipments at T Plant	T Plant Complex to receive three garnet filter shipments	9/30/2020	0%
20-EMS-WFMP-OBJ3-P1	Repackage 400 m ³ of TRU/transuranic mixed (TRUM) waste in preparation for certification/shipment to the Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico	Complete repackaging 400 m ³ of TRU/TRUM waste	9/30/2020	42%
20-EMS-RRMP-OBJ1-P1	Track maintenance/recycling activities at ERDF e.g., used oil recycling, tires, batteries and product drums, etc.	On a quarterly basis, track the maintenance recycling activities of the ERDF subcontractor and CH2M HILL Plateau Remediation Company (CHPRC) transportation organization	9/30/2020	20%

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred (DART)	1	3*	* 1 DART, Project Technical Services (PTS) in support of RL-0013 * 1 DART, Mission Support Alliance, LLC (MSA) in support of RL-0013. * 2/19/2020 – While moving A cabinet, the cabinet shifted striking the upper right arm of employee (25489).
Total Recordable Injuries	0	0	N/A
First Aid Cases	1	19	* 2/3/2020 – Wire wheel kicked back and caused abrasion to employee's left knee. The employee was transported to HPM Corporation and returned to work (25479).
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

Waste and Fuels Management Project

13.01 Project Management

- WESF Permit: CH2M HILL Plateau Remediation Company (CHPRC) closed all the Washington State Department of Ecology (Ecology) comments on the preparedness and prevention, security and contingency plan addenda for WESF, completing the addenda.
- Solid Waste Operations Complex (SWOC) Part B Permit: On February 12, 2020, the Contingency Plan Addendum for the low-level burial grounds was transmitted to Ecology for informal review.
- Consent Agreement and Final Order: On February 4, 2020, the U.S. Department of Energy (DOE), Richland Operations Office (RL) and CHPRC completed the data quality objectives (DQOs) process for the Central Waste Center (CWC) Outside Storage Area A and Outside Storage Area B and began drafting the DQOs summary report.

13.02 Capsule Storage and Disposition

- Completed installation of replacement canyon crane rail brackets.
- Initiated cleaning and paint removal from the 15-ton canyon crane rails in support of the crane retrieval system adjustments.
- Completed removal of G Cell canyon cover blocks (four total), surveyed and performed radiological decontamination.
- Completed a full-up emergency preparedness drill.
- Completed two operational drills at WESF.
- Completed 31 preventative maintenance (PM) packages.

13.03 Canister Storage Building (CSB)

- Performed MCO sampling proficiency demonstrations using the MCO shield plug mockup.
- Completed one operational drill.
- Completed 20 PM packages.

13.06 TRU Repackaging

- Completed repackaging of 21.6 m³ of TRU/TRUM waste for a total of 288.1 m³ fiscal year to date (FYTD).

13.07 Waste Receiving and Processing

- Shipped one 1800TL from the Waste Receiving and Processing Facility (WRAP) to Perma-Fix Northwest (PFNW) in one shipment for processing.
- Completed 192 surveillances and 14 PM packages.

13.08 T Plant

- Shipped four drums from T Plant to Stericycle in one shipment.
- Completed 494 surveillances and 18 PM packages.

13.09 CWC and Low-Level Burial Grounds

- Completed the repair or replacement of 13 waste storage box covers.
- Shipped one 1800TL and one Super 7A loaded radioactive waste containers from the CWC to PFNW in two shipments for processing.
- Received 12 standard radioactive waste boxes containing processed waste from PFNW at CWC in three shipments.
- Completed 285 surveillances and 21 PM packages.

13.15 TRU Disposition

- Continuing enhancement of acceptable knowledge on TRU waste streams. The second of 10 waste streams is complete.

13.16 Offsite Spent Nuclear Fuel Disposition

- Maintained coordination of offsite spent nuclear fuel disposition.

13.21 Mixed-Waste Disposal Trenches (MWT)

- Received 10 boxes from PFNW to MWT 31 in three shipments.
- Completed 106 surveillances.

13.24 Management of Cesium (Cs) and Strontium (St) Capsules Project (MSCS)

- The subcontractor for the CSA construction of the MCSC project completed all premobilization submittals.
- The subcontractor for MASF modifications completed installation of the MSCS project mockup structure floor at the MASF.
- With the support of PTS, the following progress was made on MCSC subproject construction activities:
 - The CSA construction contractor mobilized to the site.
 - Received MSA's cost estimate for performing the 13.8KV distribution work scope associated with the WESF truck port utility relocation.
 - The manipulator support frame steel was installed at the mockup facility.

River Risk Management Project

13.10 Environmental Restoration Disposal Facility

- Received 14,464 tons of waste for disposal.
- Received 22,649 tons of waste for disposal FYTD. Any corrections in previous months are reflected in this total.
- Received 101 shipments (1,711 tons) of Plutonium Finishing Plant (PFP) Closure Project waste using the enhanced radiological controls during disposal operations.
- Disposal started enhanced PFP place and cover.
- Offloaded the 241-A-101 thermocouple from Washington River Protection Solutions, LLC.
- Completed the first special packaging authorization shipment from PFP to ERDF on February 21, 2020.

13.12 Integrated Disposal Facility

- Care and Custody
 - Completed February monthly inspections.
 - Performed routine maintenance work (ground fault circuit interrupter replacements, etc.)
 - Replaced low-volume pump in the Cell 2 Leachate Collection and Recovery System sump.
 - Replaced and calibrated Leak Detection System flow meter in Crest Pad Building 219E.
 - Installed and calibrated new level switches for both the Cell 1 and Cell 2 leachate storage tanks.
- IDF Operational Readiness
 - With the support of PTS, the following progress was made on installation of IDF infrastructure:
 - Continued grading activities of the waste receiving area.
 - Continued utility installation.
 - Mobilized the subcontractor for construction of the leachate tank covers.
- RCRA Permit Modification Request
 - The RL 60-day public comment period for the IDF RCRA Permit Modification Request ended on February 14, 2020.

MAJOR ISSUES

Issue

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

Corrective Action

TRU disposition activities would prepare the contents of these containers in a configuration suitable for eventual disposal at the WIPP in Carlsbad, New Mexico. The configuration would also mitigate or 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 fiscal year (FY) 2020 TRU commercial repackaging, allowing shipments to PFNW for repackaging to continue throughout the year.

Issue

CHPRC submitted CHPRC-1901804, *Preliminary Documented Safety Analysis for the Capsule Storage Area*, to RL for review on May 13, 2019, and anticipated receiving approval 120 days later on September 12, 2019. Due to the extent and complexity of DOE headquarters (HQ) and RL comments, approval of the preliminary documented safety analysis (PDSA) did not occur on September 12, 2019, and that delay impacts initiation of CSA procurement/construction and Cask Storage System (CSS) procurement/fabrication.

Corrective Action

Submit an early procurement request to RL for approval to commence CSA procurement/construction and CSS procurement/fabrication prior to RL approval of the PDSA. CHPRC personnel continue to work with RL personnel to resolve outstanding comments.

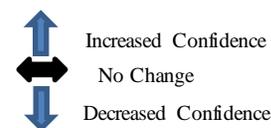
Status

CHPRC submitted an early procurement request to RL for review and approval on October 21, 2019. RL subsequently authorized the construction and fabrication of the CSA and early procurement of CSS universal capsule sleeves and transportable storage container baskets (reference 1905014/20-PFD-0003, dated November 26, 2019). RL is withholding authorization of early procurement of the transportable storage containers and vertical concrete casks until the associated RL PDSA review comments are satisfactorily resolved. CHPRC and RL personnel continue to work to resolve outstanding PDSA comments. Authorization is anticipated in fiscal month March.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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



Risk Title	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
RL-0013/WBS-013													
Explanation of major changes to the project monthly stoplight chart: There are no major changes to the stoplight chart in February.													
Realized Risks (Risks that are currently impacting project cost/schedule)													
13-RCRA-REV9-001: "RL-13 - Additional Dangerous Waste Management Units (DWMUs)"	Unplanned DWMUs are added to the scope, requiring additional document support, impacting the project in both cost and schedule. Risk Handling Strategy: Control Probability: Very likely (>90%) Worst Case Impacts: \$0, 48 days	●	↔	<p>Risk Event: Ecology provided technical comments on the permit addendum, expanding the number of DWMUs.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Risk Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Conduct weekly meetings with Ecology and RL.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Risk Action Assessment: No significant changes in February. Impacts associated with realization of this risk are ongoing; as such, this risk will continue to be reported for visibility until it no longer poses a threat to the project. The project does not expect to resolve this realized risk within the current contract period.</p>	Risk Recovery Action(s)	FC Date	%	Conduct weekly meetings with Ecology and RL.	Ongoing	N/A			
Risk Recovery Action(s)	FC Date	%											
Conduct weekly meetings with Ecology and RL.	Ongoing	N/A											
13-RCRA-REV9-003: "RL-13 - Ecology Delays"	Scope supported by Ecology is impacted by delays in Ecology review time that do not align with the Permit Management Schedule. This issue requires that the project take recovery actions that result in schedule impacts. Risk Handling Strategy: Control Probability: Very likely (>90%) Worst Case Impacts: \$0, 96 days	●	↔	<p>Risk Event: Ecology's review time is impacting the Permit Management Schedule.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Risk Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Conduct routine meetings with Ecology and the contractor to promote communication efforts.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Risk Action Assessment: No significant changes in February. Select staff are prepared to respond to comments when they are received. Impacts associated with realization of this risk are ongoing; as such, this risk will continue to be reported for visibility until it no longer poses a threat to the project. The project does not expect to resolve this realized risk within the current contract period.</p>	Risk Recovery Action(s)	FC Date	%	Conduct routine meetings with Ecology and the contractor to promote communication efforts.	Ongoing	N/A			
Risk Recovery Action(s)	FC Date	%											
Conduct routine meetings with Ecology and the contractor to promote communication efforts.	Ongoing	N/A											
WSD-138: "Regulatory Document (Closure Plan with Ecology) Results in Significant Comments from the Regulator"	Significant comments from the regulator on closure plans submitted for approval results in nonapproval of the permit or rework, causing schedule impacts to the project. Risk Handling Strategy: Control Probability: Very likely (>90%) Worst Case Impacts: \$0, 96 days	●	↔	<p>Risk Event: Eight closure plans were formally resubmitted to Ecology in August and November 2018. In January 2019, Ecology provided additional comments changing the closure strategy for several units.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Risk Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Use a standardized approach to quickly evaluate and categorize comments for resolution.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Conduct routine meetings to address agency comments and to remain current on the influences from agencies.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Risk Action Assessment: No significant changes in February. RL informed Ecology that additional document revisions would not be completed at this time. The impacts associated with the realization of this risk are ongoing; as such, this risk will continue to be reported for visibility until it no longer poses a threat to the project. The project does not expect to resolve this realized risk within the current contract period.</p>	Risk Recovery Action(s)	FC Date	%	Use a standardized approach to quickly evaluate and categorize comments for resolution.	Ongoing	N/A	Conduct routine meetings to address agency comments and to remain current on the influences from agencies.	Ongoing	N/A
Risk Recovery Action(s)	FC Date	%											
Use a standardized approach to quickly evaluate and categorize comments for resolution.	Ongoing	N/A											
Conduct routine meetings to address agency comments and to remain current on the influences from agencies.	Ongoing	N/A											

Risk Title	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
RL-0013/WBS-013													
WSD-CSA-015: "Delays in PDSA/FHA Approval by DOE"	<p>A delay in DOE approval of the PDSA/Fire Hazard Analysis delays start of CSA construction.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Very likely (>90%)</p> <p>Worst Case Impact: \$0K, 96 days</p>	●	↔	<p>Risk Event: CHPRC received DOE-HQ comments on the CSA PDSA that require additional analysis. Due to the time it has taken to resolve RL comments, the delay of PDSA approval was impacting the start of CSA material procurement and construction.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Risk Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Continue working with DOE-HQ to resolve the comments that may prevent RL approval of the CSA PDSA.</td> <td>3/19/20</td> <td>90</td> </tr> </tbody> </table> <p>Risk Assessment Action: No significant changes in February. Due to outstanding comments on the CSA PDSA, RL was unable to approve this document by the scheduled date of September 12, 2019. The RL federal project director and the CHPRC project manager agreed that submitting an early procurement request was appropriate and would minimize negative impact to the W-135 project baseline. Approval of the early procurement request occurred via 1905014/20-PFD-0003 on November 26, 2019. In addition, the RL and CHPRC W-135 team are working to resolve outstanding CSA PDSA comments. Resolution of DOE-HQ comments is anticipated to lead to RL issuing a safety evaluation report (SER), approving the CSA PDSA currently forecast for May 2020.</p>	Risk Recovery Action(s)	FC Date	%	Continue working with DOE-HQ to resolve the comments that may prevent RL approval of the CSA PDSA.	3/19/20	90			
Risk Recovery Action(s)	FC Date	%											
Continue working with DOE-HQ to resolve the comments that may prevent RL approval of the CSA PDSA.	3/19/20	90											
WSD-CSS-009: "PDSA Comments Result in Schedule Delays"	<p>Comments on the PDSA received from RL are unable to be resolved within the allotted time frame provided in the baseline schedule, resulting in schedule delays.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Very likely (>90%)</p> <p>Worst Case Impacts: \$1.7M, 192 days</p>	●	↔	<p>Risk Event: CHPRC received DOE-HQ comments on the CSA PDSA that require additional analysis of the CSS final design. Depending on the analysis results, the CSS final design may need to be modified. Additionally, delay of the PDSA approval could impact CSS procurement/fabrication.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Risk Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Receive RL approval of CSS early procurement as requested via CHPRC-1904278.</td> <td>3/5/20</td> <td>30</td> </tr> <tr> <td>Continue working with DOE-HQ to resolve the comments that may prevent RL approval of the CSA PDSA.</td> <td>3/19/20</td> <td>90</td> </tr> </tbody> </table> <p>Risk Assessment Action: No significant changes in February. Due to outstanding comments, RL was unable to approve the CSA PDSA by the scheduled date of September 12, 2019. The RL federal project director and the CHPRC project manager agreed that submitting an early procurement request was appropriate and would minimize negative impact to the W-135 project baseline. Partial approval of the early procurement request occurred via 1905014/20-PFD-0003 on November 26, 2019; however, full authorization for procurement of the balance of CSS equipment is not anticipated until March 19, 2020. Resolution of DOE-HQ comments is anticipated to lead to RL issuing an SER, approving the CSA PDSA currently forecast for May 2020.</p>	Risk Recovery Action(s)	FC Date	%	Receive RL approval of CSS early procurement as requested via CHPRC-1904278.	3/5/20	30	Continue working with DOE-HQ to resolve the comments that may prevent RL approval of the CSA PDSA.	3/19/20	90
Risk Recovery Action(s)	FC Date	%											
Receive RL approval of CSS early procurement as requested via CHPRC-1904278.	3/5/20	30											
Continue working with DOE-HQ to resolve the comments that may prevent RL approval of the CSA PDSA.	3/19/20	90											
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)													
WSD-097: "Major Equipment Failure – T Plant"	<p>T Plant suffers a major equipment failure (crane, primary power supply, etc.), resulting in cost impacts and schedule delays.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Medium (26% to 74%)</p> <p>Worst Case Impacts: \$3M, 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 contract.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Implement aggressive CM/PM program.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in February. The project has commenced mitigating strategies (i.e., aggressive surveillance and maintenance activities) to help reduce this risk. The canyon crane is currently operational, and spare parts have been procured for the most critical spares.</p>	Mitigation Action(s)	FC Date	%	Implement aggressive CM/PM program.	Ongoing	N/A			
Mitigation Action(s)	FC Date	%											
Implement aggressive CM/PM program.	Ongoing	N/A											

Risk Title	Unmitigated Risk Impacts	Assessment		Comments												
		Month	Trend													
RL-0013/WBS-013																
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)																
WSD-CSS-006: “Fabrication of the Equipment from the Contractor”	Fabrication of critical items for the long-term storage of the Cs and Sr capsules does not go exactly as planned, resulting in design changes and rework. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$5M, 64 days	●	↔	<p>Risk Trigger Metric: Fabrication of required equipment and items does not go according to schedule, requiring redesign or additional components that will affect the project’s cost and schedule baseline. Fabrication is not currently anticipated until fiscal month June.</p> <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>The scope of each task will be reviewed prior to initiation to ensure that the contractor is aligned for the upcoming work. Contractor oversight is accomplished via weekly interface meetings and trips to the contractor’s location for in-person interface meetings.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No changes in February. Procurement of transfer (including universal capsule sleeves) and ancillary equipment commenced in January 2020 following RL approval of the Task 5/6 and 9 consent packages. Fabrication is scheduled to commence in June 2020.</p>	Mitigation Action(s)	FC Date	%	The scope of each task will be reviewed prior to initiation to ensure that the contractor is aligned for the upcoming work. Contractor oversight is accomplished via weekly interface meetings and trips to the contractor’s location for in-person interface meetings.	Ongoing	N/A						
Mitigation Action(s)	FC Date	%														
The scope of each task will be reviewed prior to initiation to ensure that the contractor is aligned for the upcoming work. Contractor oversight is accomplished via weekly interface meetings and trips to the contractor’s location for in-person interface meetings.	Ongoing	N/A														
FY2020 Key Risks																
WSD-086: “W&FM Industrial Accident or Contamination”	An industrial accident or contamination event requires corrective actions. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$3M, 0 days	●	↔	<p>Risk Trigger Metric: An industrial accident or contamination event requires corrective actions, resulting in cost impacts.</p> <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Adhere to CHPRC procedures, safety programs and training programs that are designed to minimize the potential of worker injury.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Process 10 large waste boxes.</td> <td>7/21/20</td> <td>40</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in February. This risk was identified as a key project risk for FY2020. The project continued to follow CHPRC procedures and safety programs to minimize any industrial accidents or contamination events. Four large waste boxes have been processed in FY2020, reducing the risk of a contamination event.</p>	Mitigation Action(s)	FC Date	%	Adhere to CHPRC procedures, safety programs and training programs that are designed to minimize the potential of worker injury.	Ongoing	N/A	Process 10 large waste boxes.	7/21/20	40			
Mitigation Action(s)	FC Date	%														
Adhere to CHPRC procedures, safety programs and training programs that are designed to minimize the potential of worker injury.	Ongoing	N/A														
Process 10 large waste boxes.	7/21/20	40														
WSD-125: “Multi-Year Pause in Waste Processing Results in Unexpected Container Integrity Issues”	A pause in waste processing results in an unexpected container degradation within the SWOC (excluding TRU retrieval activities) and requires additional resources to respond. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$5M, 0 days	●	↔	<p>Risk Trigger Metric: Degraded containers are discovered in CWC.</p> <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Perform daily/weekly waste container surveillances to identify container abnormalities.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Manage a “watch list” of waste containers that have shown signs of degradation or are associated with degraded containers.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Process waste packages at a rate funded by RL.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in February. This risk was identified as a key project risk for FY2020. Surveillances continue to be performed for the project to identify container and container cover abnormalities. 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
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														
WSD-136: “CWC/Waste Receiving and Processing (WRAP) Components Fail”	CWC facilities and components may reach their end of life. These items will need to be replaced and/or repaired outside of planned funding profiles, resulting in cost impacts. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$2M, 0 days	●	↔	<p>Risk Trigger Metric: Maintenance activities at CWC increase due to aging facilities.</p> <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Conduct floor repairs as necessary.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Conducting doorframe replacements and electrical equipment repairs as necessary.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Design roof replacement preparation process pad.</td> <td>09/30/20</td> <td>8</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in February. This risk was identified as a key project risk for FY2020. The WRAP roof was analyzed for structural integrity following water intrusion. There was insufficient basis for the roof’s integrity, which will lead to an eventual roof replacement planned for FY2020-21, pending weather conditions. The master documented safety analysis container stacking requirements are complete. Maintenance work at CWC will be scheduled based on facility work priorities.</p>	Mitigation Action(s)	FC Date	%	Conduct floor repairs as necessary.	Ongoing	N/A	Conducting doorframe replacements and electrical equipment repairs as necessary.	Ongoing	N/A	Design roof replacement preparation process pad.	09/30/20	8
Mitigation Action(s)	FC Date	%														
Conduct floor repairs as necessary.	Ongoing	N/A														
Conducting doorframe replacements and electrical equipment repairs as necessary.	Ongoing	N/A														
Design roof replacement preparation process pad.	09/30/20	8														

Risk Title	Unmitigated Risk Impacts	Assessment		Comments												
		Month	Trend													
RL-0013/WBS-013																
WSD-140: “As-Found-Unknown Conditions - W&FMP Facilities”	Unknowns, as found or emergent conditions, impact the operability of one or more W&FMP facilities, requiring recovery actions that result in in-scope unplanned work. Risk Handling Strategy: Accept Probability: Very likely (>90%) Worst Case Impacts: \$2M, 0 days	●	↔	Risk Trigger Metric: Unknowns, as found or emergent conditions impact the operability of one or more W&FMP facilities, requiring recovery actions that result in in-scope unplanned work. <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> Mitigation Assessment: No significant changes in February. This risk was identified as a key project risk for FY2020. This risk is an accepted risk, as the project cannot mitigate for unknown conditions.	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-144: “Changes to Ecology Strategy”	Ecology issues a permit that is significantly different than planned scope, resulting in both cost and schedule impacts to the project. Risk Handling Strategy: Control Probability: Low (10% to 25%) Worst Case Impacts: \$10M, 192 days	●	↔	Risk Trigger Metric: Ecology issues a permit that does not align with CHPRC’s plans. DOE does not appeal the permit, causing CHPRC to incorporate all permit requirements. <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Continuous communication and routine meetings to address agency comments.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Periodic meetings with DOE to discuss the impacts of Ecology decisions.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> Mitigation Assessment: No significant changes in February. This risk was identified as a key project risk for FY2020. W&FMP personnel continue to meet routinely with Ecology to resolve comments on permit addenda and preclude issuance of a draft permit different in scope than anticipated.	Mitigation Action(s)	FC Date	%	Continuous communication and routine meetings to address agency comments.	Ongoing	N/A	Periodic meetings with DOE to discuss the impacts of Ecology decisions.	Ongoing	N/A			
Mitigation Action(s)	FC Date	%														
Continuous communication and routine meetings to address agency comments.	Ongoing	N/A														
Periodic meetings with DOE to discuss the impacts of Ecology decisions.	Ongoing	N/A														
WSD-CSA-006: “Delays Associated with Temporary Authorization”	Delays are experienced while awaiting Ecology approval of the temporary authorization (TA) for CSA construction, thereby impacting the schedule. Risk Handling Strategy: Control Probability: Low (10% to 25%) Worst Case Impacts: \$0, 96 days	●	↔	Risk Trigger Metric: Ecology is not successful at issuing the RCRA Part B Permit or the TA prior to the March 1, 2020, construction start date. <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Continued communication with Ecology to facilitate the early approval of the TA.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> Mitigation Assessment: This risk has been identified as a key risk for FY2020. The CSA RCRA Part B Permit was issued on February 20, 2020. Following a 30-calendar day period, the permit will become effective.	Mitigation Action(s)	FC Date	%	Continued communication with Ecology to facilitate the early approval of the TA.	Ongoing	N/A						
Mitigation Action(s)	FC Date	%														
Continued communication with Ecology to facilitate the early approval of the TA.	Ongoing	N/A														
WSD-CSA-013: “CSA Site Location Found to Have Extensive Contamination”	The CSA location is found to have contaminated soil or volumes of unfavorable (e.g., loose) soils. Risk Handling Strategy: Accept Probability: Medium (26% to 74%) Worst Case Impacts: \$100K, 48 days	●	↔	Risk Trigger Metric: Significant volumes of contaminated or otherwise unsuitable soils are discovered during CSA construction that cause delays and costs, resulting in the required excavation of additional soil and potentially causing the contamination of leased equipment. CSA construction is forecast to commence in March 2020. <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> Mitigation Assessment: No significant changes in February. This risk has been identified as a key project risk for FY2020. This risk has been accepted, as the project has taken great precaution to plan the location of the CSA away from any potential contamination. In the unlikely event that contamination is detected within the CSA site location, project costs and a schedule delay will be accepted, and shipping the contaminated soil to ERDF for disposal will proceed.	Mitigation Action(s)	FC Date	%	None identified at this time.	N/A	N/A						
Mitigation Action(s)	FC Date	%														
None identified at this time.	N/A	N/A														
WSD-W135-31: “Canyon Crane Non-Functional/ Not Serviceable”	The WESF crane is put back into limited usage for the W-130 Project; however, the crane is found to be unserviceable or fails during the W-135 construction and or 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 border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Install rail brackets for canyon crane</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Perform preventative/corrective maintenance procedures on the crane to facilitate reliability</td> <td>08/31/20</td> <td>0</td> </tr> <tr> <td>Procure critical spares</td> <td>9/30/21</td> <td>0</td> </tr> </tbody> </table> Mitigation Assessment: Installation of the new WESF canyon crane rail brackets completed on January 30, 2020. This risk has been identified as a key risk for FY2020. Facility personnel will complete crane PMs in FY2020. Critical spares will be evaluated and procured prior to the end of FY2021.	Mitigation Action(s)	FC Date	%	Install rail brackets for canyon crane	Complete	100	Perform preventative/corrective maintenance procedures on the crane to facilitate reliability	08/31/20	0	Procure critical spares	9/30/21	0
Mitigation Action(s)	FC Date	%														
Install rail brackets for canyon crane	Complete	100														
Perform preventative/corrective maintenance procedures on the crane to facilitate reliability	08/31/20	0														
Procure critical spares	9/30/21	0														

Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
RL-0013/WBS-013										
WSD-IDF-11: "Discovery of Unplanned Site Conditions"	Unexpected site conditions are encountered during soil excavation activities, resulting in recovery actions. Risk Handling Strategy: Accept Probability: Low (10% to 24%) Worst Case Impacts: \$240K, 16 days	●	↔	Risk Trigger Metric: During excavation activities within the established Waste Information Data System site, the project encounters unplanned contamination, debris, legacy waste (drums) or utilities. <table border="1" style="width: 100%;"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> Mitigation Assessment: No significant changes in February. This risk has been identified as a key project risk for FY2020. Although this risk is accepted, detailed reviews of existing drawings, site walk downs and continuous site radiological surveys throughout excavation efforts have already been executed. There is a low probability of unplanned contamination and/or culturally sensitive issues, and project cost and schedule delays are accepted.	Mitigation Action(s)	FC Date	%	None identified at this time.	N/A	N/A
Mitigation Action(s)	FC Date	%								
None identified at this time.	N/A	N/A								
Unassigned Risks (Pending ownership of identified risks/opportunities)										
No unassigned risks identified in February.										

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	15.7	15.7	15.2	(0.0)	-0.1%	0.4	2.8%

Numbers are rounded to the nearest \$0.1 million.

CM Schedule Performance (-\$0.0M/-0.1%)

The CM schedule variance is within threshold.

CM Cost Performance (+\$0.4M/+2.8%)

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	1,552.6	1,542.7	1,459.0	(9.9)	-0.6%	83.7	5.4%	1,677.0	1,601.0	142.0	76.1

Numbers are rounded to the nearest \$0.1 million.

CTD Schedule Performance (-\$9.9M/-0.6%)

The CTD schedule variance is within threshold.

CTD Cost Performance (+\$83.7/+5.4%)

The CTD favorable cost variance is a result of realizing the following efficiencies:

- 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 and associated surveillances/routines and records.
- Tagging out unneeded equipment and reducing the frequency and number of PM 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 and reducing operations fieldwork supervision.
- Increasing emphasis on managing planned absence coverage within existing resources.
- Simplifying and optimizing acquisition and procurement management within W&FMP.
- Eliminating the separate waste forecast system by integrating forecasting as part of the baseline process and the Solid Waste Inventory Tracking System (SWITS).

Variance at Completion (+\$76.1M/+4.5%)

The projected VAC decreased from \$87.2 million in January to \$76.1 in February to reflect the increase of the W-135 CSS acceleration scope based upon the revised Integrated Priority List 2a. This scope will be incorporated into the performance management baseline in March and adjust the VAC accordingly.

The favorable VAC is primarily the result of realizing the following efficiencies:

- 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/radiation area monitors and associated surveillances/routines and records.
- Tagging out unneeded equipment and reducing the frequency and number of PM activities.
- Increasing shared resources across all of the SWOC.
- Reducing dedicated resources for CAS and using project-wide support.
- Optimizing maintenance scheduling and execution and reducing operations fieldwork supervision.
- Increasing emphasis on managing planned absence coverage within existing resources.
- Simplifying and optimizing acquisition and procurement management within W&FMP.
- Eliminating the separate waste forecast system by integrating forecasting as part of the baseline process and SWITS.

Contract Performance Report Formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST (\$M)

RL-0013 Solid Waste Stabilization and Disposition	FY2020		Variance
	Projected Funding	Spending Forecast	
Waste Stabilization and Disposition	198.8	202.8	(4.0)
Management of Cesium and Strontium Capsules (Line Item)	14.3	0.6	13.7
RL-0013 – Total	213.1	203.4	9.7

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis

The current FY2020 projected funding level of \$213.1 million reflects the final FY2020 project management baseline annual update submitted to RL in September FY2019, with updates through fiscal month February. Line item funding reflects FY2019 carryover and FY2020 new funding targets. The spending forecast of \$203.4 million reflects an increase of approximately \$0.7 million from January, primarily due to additional resources for waste determinations, and unanticipated need to purchase grapples at IDF.

Critical Path Analysis

Critical path analysis will be provided upon request.

MILESTONE STATUS

The following table is a one-year look ahead of project breakdown structure (PBS) RL-0013 *Hanford Federal Facility Agreement and Consent Order*-enforceable milestones, nonenforceable target due dates and commitments.

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	9/30/2018			Ecology has not agreed to the change form
M-091-03N	TPA M-091-03N Submit Revision of TRUM Waste and Mixed Low-level Waste to Ecology	6/30/2020		6/30/2020	On schedule
M-091-44T	Submit Change Request to Establish Schedule for Achieving Offsite Shipment of All TRUM Waste	9/30/2020		9/30/2020	On schedule
M-091-49A	Submit a Change Request to Establish a Schedule for Achieving the Retrieval of RSW	9/30/2020		9/30/2020	On schedule

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

Contract Section	Project	GFS/I	Status
J.12/C.2.2, C.2.3	PBS-RL-0011, <i>Plutonium Finishing Plant Closure Project</i> PBS-RL-0013, <i>Solid and Liquid Waste Treatment and Disposal</i>	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, acts as signatory on the shipping papers and ensures compliance with DOE Manual 460.2-1, <i>Radioactive Material Transportation Practices Manual for Use with DOE O 460.2A</i> . RL arranges for Commercial Motor Vehicle Safety Alliance Level VI vehicle inspections and verifies that the government drivers meet the applicable U.S. 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 treatment, storage and disposal requirements.	Ongoing
J.12/C.2.3.6	PBS-RL-0013, <i>Transuranic Waste Certification</i>	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.	No WIPP shipments are planned within the remaining contract period of performance.

DOE ACTIONS/DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
CSA – RL: Review/Approve PDSA (first FY)	5/16/2019(A)	6/1/2020
RL Review WESF Safety Design Strategy Rev. 3	4/06/2020	5/06/2020
RL Approve IDF Final Hazard Categorization	4/16/2020	4/30/2020
RL Review of Project W-135, WESF Modifications, CD-2/CD-3 Documentation	6/5/2020	10/2/2020

The expected due date for RL review and approval of the CSA PDSA slipped two days to June 1, 2020, since the expected date reported in January 2020. The revised date reflects current projections based on the status of resolving RL questions and concerns associated with the draft CSA PDSA submitted on May 16, 2019.

Section D

Soil and Groundwater Remediation Project (RL-0030)

CH2MHILL
Plateau Remediation Company
a Jacobs company



W. F. Barrett
Vice President and
Project Manager for
Soil and Groundwater
Remediation Project

M. A. Wright
Vice President for
Project Technical
Services

February 2020
CHPRC-2020-02, 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

Progress continued in February on the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)* remedial process documentation for the River Corridor and Central Plateau. Fiscal year (FY) 2020 planned well drilling was reduced in February to reflect the implementation of Baseline Change Request (BCR)-030-20-010R0, *RL-030 Scope Reductions*, which reduced planned FY2020 scope due to a funding reduction. The 200 West Area Pump and Treat (P&T) Facility continued to operate at record flow rates. Groundwater treatment and well drilling (including development) that was completed 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	29.1	150.3	1.4	8.3						
HX P&T	20.6	112.3	2.8	15.8						
KR-4 P&T	12.7	61.5	0.1	0.4						
KW P&T	12.3	64.0	0.8	7.1						
KX P&T	35.5	192.2	1.8	10.2						
200 West P&T	104.1	516.0	0.1	2.9	179.0	821.0	1.44×10 ¹¹	7.33×10 ¹¹	7.3	44.7
Combined	214.3	1,096.3	7.0	44.7	179.0	821.0	1.44×10¹¹	7.33×10¹¹	7.3	44.7
FY2020 Gold Metric	--	2,200.0	--	80.0	--	1,800.0	--	N/A	--	90.0

Well Drilling Completion by Area*	FY2020 Planned	Current Calendar Month	FY2020 Cumulative
100-KR-4	3	1	1
100-HR-3	9	0	0
200-DV-1	2	0	0
200-ZP-1	7	0	0
M-24 Milestone	3	0	0
Total FY2020 Wells	24	0	0
Site Wide Boreholes	0	0	0
	FY2019 Carryover	Current Calendar Month	Cumulative
200-BP-5	2	0	2
200-ZP-1	1	0	1
Total FY2019 Carryover Wells	3	0	1

*Well drilling "completion" indicates achieving all drilling activities (drill, construct, develop and complete).

EMS Objectives and Target Status

Objective Action Plan#	Objective	Due Date	Status
20-SGRP-OBJ-1-P1	With the suspension of biological treatment, carbon tetrachloride concentrations will be monitored in the air emissions for measuring granulated activated carbon loading and meeting regulatory limits.	7/30/2020	50%
20-SGRP-OBJ-2-P1	The number and types of spills at from the Soil and Groundwater Remediation Project (S&GRP) will be tracked, the workforce will be briefed on spill prevention, and if needed, a plan for reducing spills will be created.	9/30/2020	22%
20-SGRP-OBJ-3-P1	S&GRP operates six P&T facilities that remove contaminants from groundwater at the Hanford Site. The goal is to treat and remediate a total of 2.2 billion gallons of groundwater.	9/30/2020	49%
20-SGRP-OBJ-4-P1	Utilization of the new Centralized Groundwater CERCLA Waste Storage Area will lead to simplification of waste management and reduction in greenhouse gas emissions from operations vehicles.	9/30/2020	38%

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis)

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	1	N/A
Total Recordable Injuries	0	3	N/A
First Aid Cases	0	8	N/A
Near-Misses	0	0	N/A

KEY ACCOMPLISHMENTS

Strategic Integration

- Replacement of the failed head-node server from the Gaia Environmental modeling computing system and subsequent acceptance testing of the new configuration to bring the system back online was completed by February 10, 2020. The Gaia Environmental system supports cumulative impact evaluation (CIE) and composite analysis (CA) modeling activities.

River Corridor

100-HR-3 Operable Unit (OU)

- Initiated drilling campaign to install eight monitoring wells and one extraction well on February 5, 2020.
- Submitted 100-D/H Hexavalent Chromium Source Evaluation, Draft Revision 0, report to the U.S. Department of Energy, Richland Operations Office (RL), for review and comment on February 19, 2020.

100-KR-4 OU

- Operations continued at the 100K West soil flushing infiltration gallery. As of February 23, 2020, about 28.8 million gallons of water have been sent to the infiltration gallery, which continues to operate at the higher infiltration rate, ranging from 160 to 175 gallons per minute (gpm).
- Completed incorporating RL comments and updating the 100-KR-4 Feasibility Study, Draft B, on February 21, 2020. This document will be provided to RL on April 23, 2020, for submittal to the U.S. Environmental Protection Agency (EPA) for review.

100-NR-2 OU

- Completed revision and internal review of the Interim Action Waste Management Plan for 100-NR-2 OU, Revision 2.

300-FF-5 OU

- Completed the uranium mobility testing and reporting associated with the 300-FF-5 Stage B Uranium Sequestration project on February 3, 2020.

Central Plateau**200-UP-1**

- Transmitted 200-UP-1 Groundwater OU remedial design/remedial action work plan, Revision 1, Draft A, to RL on January 30, 2020, for transmittal to EPA for review.

200-ZP-1 OU

- Initiated drilling on the first two of five extraction wells on January 27, 2020 (299-W11-103) and February 18, 2020 (299-W11-104).
- Issued DOE/RL-2019-23, *200-ZP-1 Operable Unit Ringold Formation A Characterization Sampling and Analysis Plan*, Revision 0, on February 13, 2020.

Groundwater Sciences

- Prepared and submitted DOE/RL-2019-65, *Hanford Site RCRA Groundwater Monitoring Report for 2019*, Revision 0, for RL review and entry into the Electronic Suspense Tracking and Routing System.

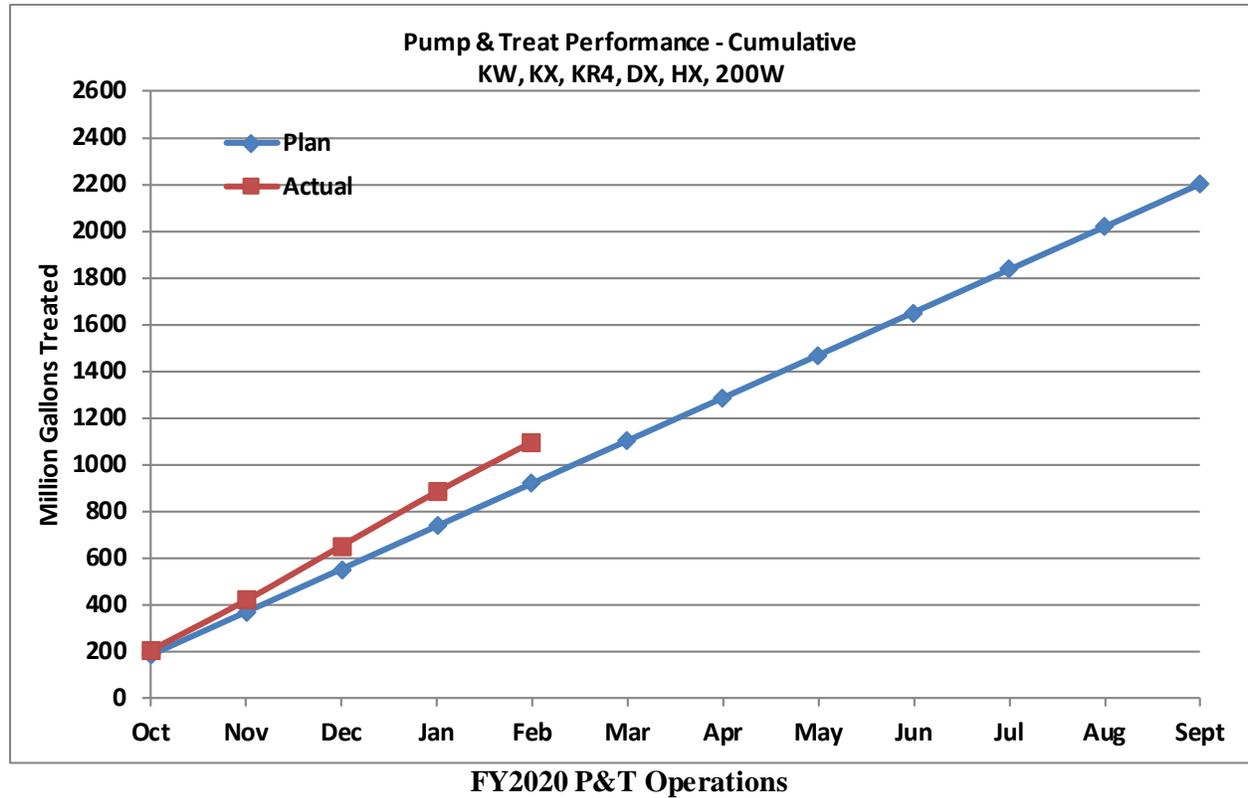
Groundwater P&T Facilities**200 West P&T**

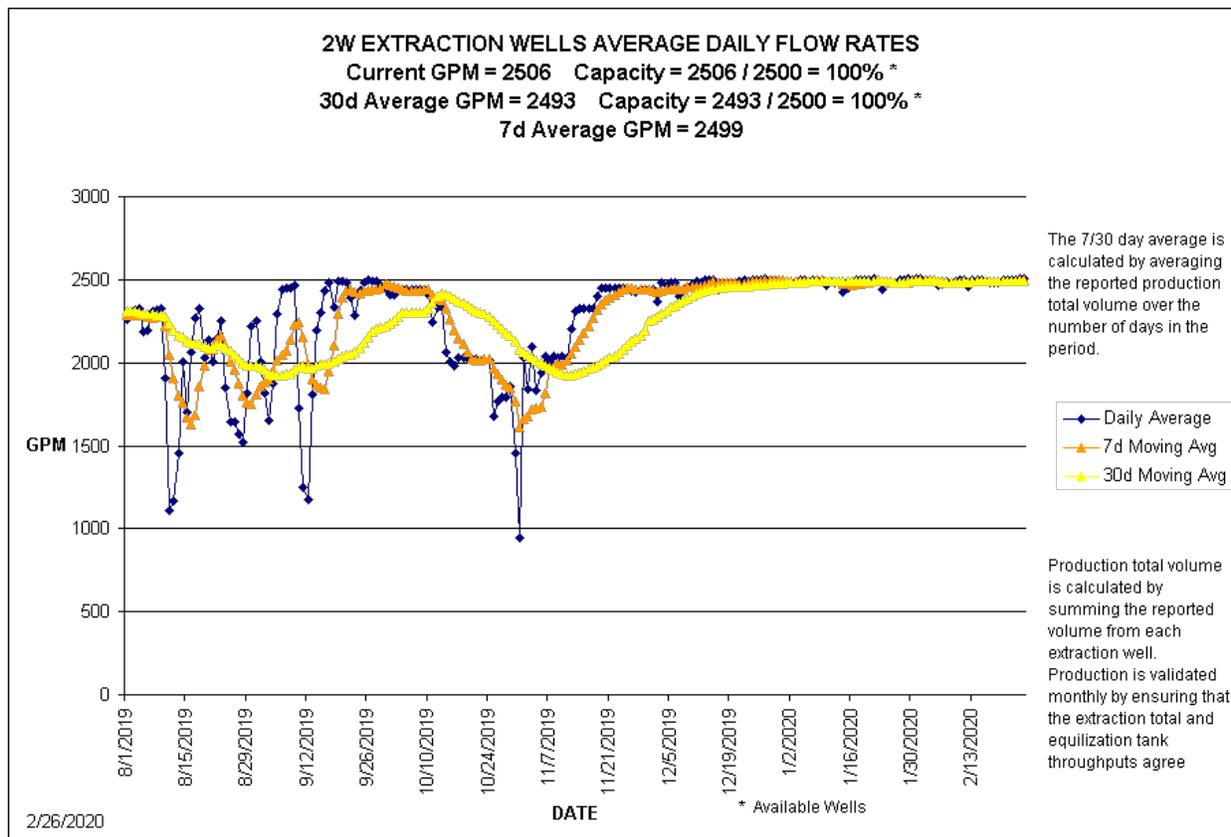
- Operated the 200 West P&T at an average of 2,488 gpm. Continued progress on 200-ZP-1 optimization activities supporting the nitrate treatment system layup:
 - Completed offloading lime from the lime silos for system layup.
 - Completed cross tie between equalization tank and recycle tank.
 - Continued construction to place road crossing and piping in preparation for an additional air stripper to be installed later in the year.

100 Area P&Ts

- Operated the DX P&T at 700 gpm, below the facility capacity of 775 gpm.
- Operated the KR-4 P&T at 305 gpm, below the facility capacity of 330 gpm.

- Operated the KW P&T at 294 gpm, below the facility capacity of 330 gpm. Continued operation of the soil infiltration gallery.
- Operated the KX P&T at 850 gpm, below the facility capacity of 900 gpm.
- Operated the HX P&T at 490 gpm, below the facility capacity of 900 gpm.





200 West P&T Operations

MAJOR ISSUES

Issue

A head-node server failure of the Gaia Environmental modeling computing system resulted in a shutdown of modeling runs in late December 2019, which impacted CIE and CA work activities.

Corrective Action

Work with Mission Support Alliance, LLC (MSA) to develop a mitigation strategy to avoid future failures. This mitigation may include placing the front-end node on a virtual server to avoid a similar failure that was recently experienced.

Status

Replacement of the failed component and acceptance testing of the new configuration to bring the system back online was completed in February. The project is working with MSA to address and execute the mitigation plan to avoid future failures. This issue is closed and will no longer be reported on.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

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

Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
RL-0030/WBS-030										
Explanation of major changes to the project monthly stoplight chart: Recovery actions for Realized Risk SGW-009: <i>Key Environmental Modeling Hardware Failure</i> have been completed. Once a viable mitigation action is approved (e.g. virtual server), this risk will be removed from the stoplight chart.										
Realized Risks (Risks that are currently impacting project cost/schedule)										
SGW-009: Key Environmental Modeling Hardware Failure	Computer hardware components for environmental modeling fail, requiring immediate replacement and resulting in cost and schedule impacts to CH2M Hill Plateau Remediation Company (CHPRC) and other Hanford Site contractor's projects. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$350K, 25 days	●	↑	Risk Event: The primary node of the Gaia Environmental modeling super computer server failed in December 2019, impacting CIE and CA work activities. <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr style="background-color: #e0e0e0;"> <th style="width: 70%;">Recovery Action(s)</th> <th style="width: 15%;">FC Date</th> <th style="width: 15%;">%</th> </tr> </thead> <tbody> <tr> <td>Replace failed server component.</td> <td>1/31/2020</td> <td>100</td> </tr> </tbody> </table> Recovery Assessment: MSA has replaced the failed component, and acceptance testing was completed on February 10, 2020. Mitigation action that is being considered is the use of a virtual server to prevent the impact of future system component failures. Once a viable mitigation action is approved, this risk will be removed from the stoplight chart. This risk will be moved to the FY2020 Key Risk section next month, while the implementation of mitigation actions are being monitored.	Recovery Action(s)	FC Date	%	Replace failed server component.	1/31/2020	100
Recovery Action(s)	FC Date	%								
Replace failed server component.	1/31/2020	100								
SGW-216B-02: 216-B-63 Closure Plan Atypical Comments	Atypical 216-B-63 comments result in multiple rounds of comment resolution that require additional effort and duration. Risk Handling Strategy: Accept Probability: Likely (75% to 90%) Worst Case Impacts: \$174.0K, 80 days	●	↓	Risk Event: RL's 216-B-63 Closure Plan comments provided in June 2019 requested removal of the pipeline for consistency with the 241-CX Tank System Closure Plan and because they were being addressed in 200-IS-1 OU. CHPRC was coordinating with both RL and the Washington State Department of Ecology (Ecology) to resolve this comment while the review was ongoing. Efforts to resolve the pipeline comment were nearing completion between RL and Ecology in July 2019 when additional Ecology comments and research requests were provided from the new Ecology lead. The issue has grown to include a more global conveyance discussion (based on a December 2019 meeting), and new comments have been received that requested additional historic information (based on a January 2020 meeting). CHPRC continues with efforts to support RL in resolving the original pipeline comments and the new comments. Ecology has expressed the desire to incorporate the resolutions into the two other closure plans currently in process (216-S-10 and 216-B-3), as well as other closure plans already certified or frozen. RL or CHPRC have not acted on this request. The issues will be revisited once resolution is reached within this 216-B-63 Closure Plan. <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr style="background-color: #e0e0e0;"> <th style="width: 70%;">Recovery Action(s)</th> <th style="width: 15%;">FC Date</th> <th style="width: 15%;">%</th> </tr> </thead> <tbody> <tr> <td>None identified.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> Recovery Assessment: No significant changes in February. CHPRC will continue to support comment resolution at RL's request. Similar comments on other closure plans will be addressed in the same approach as decided in this closure plan.	Recovery Action(s)	FC Date	%	None identified.	N/A	N/A
Recovery Action(s)	FC Date	%								
None identified.	N/A	N/A								
SGW-216B-01: 216-B-3 Closure Plan Atypical Comments	Atypical 216-B-3 comments result in multiple rounds of comment resolution that require additional effort and duration. Risk Handling Strategy: Accept Probability: Likely (75% to 90%) Worst Case Impacts: \$174.0K, 80 days	●	↓	Risk Event: RL and Ecology comments were originally received in April 2019. Since that date, additional Ecology comments were received in October and December 2019 as part of their "confirm comment capture" task. Additional comments were also received via the 216-B-63 Closure Plan review. <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr style="background-color: #e0e0e0;"> <th style="width: 70%;">Recovery Action(s)</th> <th style="width: 15%;">FC Date</th> <th style="width: 15%;">%</th> </tr> </thead> <tbody> <tr> <td>None identified.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> Recovery Assessment: CHPRC will continue to support comment resolution at RL's request. However, efforts are not planned on the new comments that have been received until resolution is reached within 216-B-63 Closure Plan.	Recovery Action(s)	FC Date	%	None identified.	N/A	N/A
Recovery Action(s)	FC Date	%								
None identified.	N/A	N/A								

Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
RL-0030/WBS-030										
SGW-216S-01: 216-S-10 Closure Plan Atypical Comments	Atypical 216-S-10 comments result in multiple rounds of comment resolution that require additional effort and duration. Risk Handling Strategy: Accept Probability: Likely (75% to 90%) Worst Case Impacts: \$174.0K, 80 days	●	↓	<p>Risk Event: RL and Ecology comments were originally received in April 2019. Since that date, additional Ecology comments were received in August, November and December 2019 as part of their “confirm comment capture” task. Additional comments were received via the 216-B-63 Closure Plan review.</p> <table border="1"> <thead> <tr> <th>Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p>Recovery Assessment: No significant changes in February. CHPRC will continue to support comment resolution at RL’s request. However, efforts are not planned on the new comments until resolution is reached within the 216-B-63 Closure Plan.</p>	Recovery Action(s)	FC Date	%	None identified.	N/A	N/A
Recovery Action(s)	FC Date	%								
None identified.	N/A	N/A								
SGW-216A-01: 216-A-29 Closure Plan Atypical Comments	Atypical 216-A-29 comments result in multiple rounds of comment resolution that require additional effort and duration. Risk Handling Strategy: Accept Probability: Likely (75% to 90%) Worst Case Impacts: \$174.0K, 80 days	●	↓	<p>Risk Event: This closure plan was “frozen” by Ecology in April 2019, with the remaining activity of certification and transmittal to occur concurrently with the in-process 216-B-63, 216-B-3 and 216-S-10 Closure Plans. During the 216-B-63 Closure Plan comment resolution meeting held in December 2019, Ecology expressed a desire to update the 216-A-29 Closure Plan upon resolution of the conveyance discussions. During the January 2020 conveyance follow-up meeting with Ecology, new comments were provided regarding a request for additional historical information, and also with an informal statement that the other certified or frozen closure plans may also need to be revised according.</p> <table border="1"> <thead> <tr> <th>Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p>Recovery Assessment: No significant changes in February. RL or CHPRC have not acted on these requests. The issues will be revisited once resolution is reached on 216-B-63 Closure Plan. There is no FY2020 budgeted cost of work scheduled (BCWS) for 216-A-29 Ditch Closure Plan.</p>	Recovery Action(s)	FC Date	%	None identified.	N/A	N/A
Recovery Action(s)	FC Date	%								
None identified.	N/A	N/A								
SGW-KR4-05: FS (Feasibility Study) – Greater Than Expected Comments from RL or Regulators	Atypical RL or regulator review comments result in multiple rounds of comment resolution and/or are global in nature, requiring additional time for comment incorporation and/or rework. Risk Handling Strategy: Control Probability: Likely (75% to 90%) Worst Case Impacts: \$120.0K, 48 days	●	↔	<p>Risk Event: Early collaborative reviews of the decisional draft FS by the EPA has resulted in a change of approach in the alternatives evolution that created rework of the FS during preparation of the Draft A version.</p> <table border="1"> <thead> <tr> <th>Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p>Recovery Assessment: No significant changes in February. Continue collaborating with EPA to help reduce the number of comments during their review.</p>	Recovery Action(s)	FC Date	%	None identified at this time.	N/A	N/A
Recovery Action(s)	FC Date	%								
None identified at this time.	N/A	N/A								
SGW-ZP1-03: Air Stripper Phase 1 Installation Design Maturity	Air Stripper Phase 1 installation final design is more complex than planned, resulting in increased project cost. Risk Handling Strategy: Accept Probability: Very Likely (>90%) Worst Case Impacts: \$2,400K, 0 days	●	↔	<p>Risk Event: Phase 1 installation design matures and the project experiences in-scope, unplanned work resulting in significant cost growth in FY2020.</p> <table border="1"> <thead> <tr> <th>Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p>Recovery Assessment: The Phase 1 installation activity was added to the performance measurement baseline (PMB) without identifying discrete scope. Design activities have progressed enough to determine that Phase 1 must include preparatory fieldwork, receipt of tower and bolt to ground. The forecast cost based on the clarified requirements is \$2.2 million over budget. No mitigation actions have been identified; however, the current forecast under-run in the stripper tower procurement offsets the anticipated over-run in installation.</p>	Recovery Action(s)	FC Date	%	None identified at this time.	N/A	N/A
Recovery Action(s)	FC Date	%								
None identified at this time.	N/A	N/A								
SGW-169-ZP1: ZP1 – Increase in Sampling & Analysis Requirements	Increased sampling requirements due to additional analysis requests or changes from the Data Quality Objective (DQO)/Sample Analysis Plan (SAP) for the five planned 200-ZP-1 extraction wells and two planned Ringold A monitoring wells. Risk Handling Strategy: Accept Probability: Very Likely (>90%) Worst Case Impacts: \$510K, 0 days	●	↓	<p>Risk Event: Additional characterization was identified during the DQO/SAP development process for the Ringold A monitoring wells and 200-ZP-1 extraction wells. Additional characterization is needed to adequately understand the subsurface conditions.</p> <table border="1"> <thead> <tr> <th>Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p>Recovery Assessment: No significant changes in February. The characterization SAPs have been finalized, and this risk has been realized. The estimate to complete has been revised to reflect the anticipated increase in sampling costs.</p>	Recovery Action(s)	FC Date	%	None identified at this time.	N/A	N/A
Recovery Action(s)	FC Date	%								
None identified at this time.	N/A	N/A								
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)										

Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
RL-0030/WBS-030										
No Critical Risks identified in February.										
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)										
No High Risks identified in February.										
FY2020 Key Risks										
SGW-BP5-02: BP5 – IX Skid Uncertainty	Installation design differs from planning assumptions, causing impacts to cost and schedule. Risk Handling Strategy: Accept Probability: Likely (26% to 74%) Worst Case Impacts: \$1,226.9K, 12 days	●	↓	Risk Event: RL has expressed a desire for an effluent concentration as low as reasonably possible (less than maximum contaminant level and previous targets). This request may result in design changes that differ from the planning assumptions. The design is 98 percent complete, so the outcome of the desired design changes may require rework and result in design criteria that is more expensive and takes longer than planning assumptions. <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> Mitigation Assessment: Weekly meetings are being held with RL to work through revised design requirements. The design has not been finalized due to pending DOE comments.	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								
SGW-170: Lack of Qualified Drilling Contractors	Availability of qualified drilling bidders to perform the FY2020 drilling scope becomes hindered, resulting in cost and schedule impacts. Risk Handling Strategy: Accept Probability: Medium (26% to 74%) Worst Case Impacts: \$1,509.7K, 0 days	●	↑	Risk Event: Due to an exodus in the nuclear environmental remediation business, qualified drilling contractors are difficult to find, resulting in higher subcontracting cost or potential impacts to performing work within schedule. <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> Mitigation Assessment: No significant changes in February. Proposals are being reviewed to determine whether a more comprehensive approach can be taken to reduce bids; however, mitigation actions may not exist for this risk.	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								
SGW-171: Increase in Routine Sampling & Analysis Requirements	Sampling and characterization requirements increase above planning assumptions due to changes from DQO/SAP sessions and/or other requested changes to analyses, resulting in cost impacts. Risk Handling Strategy: Accept Probability: Likely (75% to 90%) Worst Case Impacts: \$1,792.0K, 0 days	●	↔	Risk Event: During review of the completed SAPs for multiple well locations, it is determined that an increase in the number of samples or complexity of sample type is above the baseline planning. <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> Mitigation Assessment: No significant changes in February. Although a Sampling Change Board has been formed to review and validate the sampling requirements for optimization, some of the SAPs were not completed during development of the FY2020 baseline budget. For that reason, budgets may not reflect required sampling, and in-scope unplanned work may not be mitigated.	Mitigation Action(s)	FC Date	%	None identified at this time.	N/A	N/A
Mitigation Action(s)	FC Date	%								
None identified at this time.	N/A	N/A								
Unassigned Risks (Pending ownership of identified risks/opportunities)										
No unassigned risks identified in February.										

PROJECT BASELINE PERFORMANCE

Current Month (CM)

(\$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	8.0	9.8	8.4	1.9	23.7%	1.4	14.5%

Numbers are rounded to the nearest \$0.1 million.

CM Schedule Performance (+\$1.9M/23.7%)

The primary drivers of the current period positive schedule variances (SV) include the following:

- The implementation of BCR-030-20-010R0, *RL-030 Scope Reductions*, which modified the FY2020 PMB to remove planned scope as a result of funding reduction. Some of that scope was behind the current period and when removed, created negative BCWS in the current period and generated a positive SV.
- The vendor design submittal package for the 200-ZP-1 air stripper tower was received in February, two months behind schedule, generating a positive SV in the current period.

CM Cost Performance (+\$1.4M/+14.5%)

The primary driver of the current period positive cost variance was the receipt of the vendor design submittal package for the 200-ZP-1 air stripper tower. The PMB relied in part on the cost of previous air stripper tower procurements; however, in FY2020, the firm-fixed price contract was awarded for much lower than previous procurements.

Contract-to-Date (CTD)

(\$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	1,676.3	1,671.7	1,622.3	(4.6)	-0.3%	49.4	3.0%	1,757.6	1,702.7	80.4	54.9

Numbers are rounded to the nearest \$0.1 million.

CTD Schedule Performance (-\$4.6M/-0.3%)

The CTD negative schedule variance is within reporting thresholds.

CTD Cost Performance (+\$49.4M/+3.0%)

The CTD positive cost variance is within reporting thresholds.

Variance at Completion (+\$54.9M/+3.1%)

The variance at completion is within reporting thresholds.

Contract Performance Report Formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST

(\$M) RL-0030 Soil and Groundwater Remediation	FY2020		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	134.7	123.9	10.8

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis

Projected FY2020 funding in February is \$134.7 million. The spending forecast of \$123.9 million reflects a funds reserve to support funding shortfalls within the Central Plateau control point. The FY2020 estimate at completion was reduced from the prior period by approximately \$1.8 million due to drilling subcontract reductions based on actual and anticipated contract award values and schedule revisions that pushed activities into FY2021.

Critical Path Analysis

Critical path analysis will be provided upon request.

MILESTONE STATUS

The following table is a one-year look ahead of project breakdown structure RL-0030, *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement)-enforceable milestones, nonenforceable target due dates and commitments for CHPRC.

Number	Title	Due Date	Actual Date	Forecast Date	Status/Comment
M-015-93C	Initiate Characterization Fieldwork for 200-SW-2 Operable Unit Landfills	9/30/2018		To be determined (TBD)	In dispute resolution
M-015-98	Complete Remedial Investigation of U Plant Related Waste Sites located in 200-WA-1	6/30/2019		TBD	In dispute resolution
M-085-70	Submit to Ecology a Remedial Investigation/Feasibility Study Work Package for 200-CB-1	9/30/2019		TBD	In dispute resolution
M-015-99	Complete Remedial Investigation of Plutonium Finishing Plant (PFP) Related Waste Sites Located in 200-WA-1	12/31/2019		TBD	In dispute resolution
M-024-58M	Initiate Discussions of Well Commitments	6/01/2020		6/01/2020	On schedule
M-024-71-T01	Conclude Discussions of Well Commitments Initiated under M-024-58	8/01/2020		7/30/2020	On schedule
M-085-80	Submit Remedial Investigation/Feasibility Study Work Plan for 200-CP-1 to Ecology	9/30/2020		TBD	At risk

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-015-112	Submit Draft B 200-IS-1 RFI/CMS/RI/FS Work Plan to Ecology with Schedule Dates	11/30/2020		1/25/2022	At risk
M-016-110-T02	Take Actions Such that Hexavalent Chromium Meets Drinking Water Standards	12/31/2020		12/31/2020	On schedule
M-016-119-T01	Operational System in Place to Contain GW Plumes in 200 NPL Area	12/31/2020		10/23/2020	On schedule
M-024-71	Complete the Construction of All Wells Listed for CY20 and Before	12/31/2020		12/31/2020	On schedule

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS/DECISIONS*

Description	CHPRC Delivery Date	Expected RL Due Date
RL Transmit RCRA Annual Report to Ecology	2/27/2020 (A)	2/27/2020 (A)
RL Transmit Central Plateau Tracer Study SAP Draft Revision 0 to Regulators for Review	3/25/2020	3/25/2020
RL Review DOE/RL-2009-124 200-ZP-1 Operations & Maintenance (O&M) Plan - Remove Bio Treatment, Decisional Draft Revision 6	3/19/2020	3/26/2020
RL Review of 200-BP-5 Waste Management Area (WMA)-C Drilling SAP Draft	3/12/2020	4/12/2020
RL Forward 100-HR-3 Remedial Design/Remedial Action Work Plan Draft Revision 0 to Regulators for Review	4/14/2020	4/14/2020
RL and Ecology Review of Low-Level Burial Ground WMA-2 Engineering Evaluation Report Regulator Review Draft	3/26/2020	4/15/2020
RL Review of 100-D/H Waste Site Closeout Package B	4/6/2020	4/16/2020
RL Review of Biomobilization/Biointrusion Root Characterization Decisional Study Plan	3/21/2020	4/19/2020
RL and Ecology Review of the Draft West Ground Water Monitoring Plan in Support of RCRA Revision 9 Permit Modification	4/3/2020	4/30/2020
RL Review of KW Soil Flushing Decisional Draft Treatability Test Report	4/3/2020	5/2/2020
RL Review of 100-D/H Waste Site Closeout Package C	4/22/2020	5/5/2020
RL Transmit 100-KR-4 Feasibility Study Draft B for EPA Review	4/23/2020	5/7/2020
RL Review DOE/RL-2009-124 200-ZP-1 O&M Plan - Remove Bio Treatment, Decisional Draft Revision 6	3/25/2020	5/8/2020
RL Review of Draft Annual Groundwater Report	4/10/2020	5/9/2020
RL Transmit 200-ZP-1 O&M Plan Draft A to EPA	5/9/2020	5/23/2020
RL Certify and Submit to Ecology 216-S-10 Pond and Ditch Addendum	5/12/2020	5/25/2020
RL Transmit 200-UP-1 Performance Monitoring Plan, Revision 1 to EPA for Approval	5/20/2020	5/26/2020

Description	CHPRC Delivery Date	Expected RL Due Date
RL Review of 100-KE Soil Flushing Explanation of Significant Difference	5/1/2020	5/30/2020
RL Review of Draft 200 Area Pump and Treat Report	5/2/2020	5/31/2020
RL Review of Draft 100 Area Pump and Treat Annual Report	5/9/2020	6/7/2020
RL Transmit 200-EA-1-Remedial Investigation/Feasibility Study Work Plan Draft Revision 0 to Regulators	5/9/2020	6/11/2020
RL Review of 100-KR-4 FY2021 Drilling Sample Analysis Plan Addendum Draft	5/22/2020	6/20/2020
RL Review of 100-KR-4 Waste Management Plan, Revision 7	6/5/2020	7/4/2020

*This table identifies key DOE actions/decisions only.

Section E

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

CH2MHILL
Plateau Remediation Company

a Jacobs company



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

February 2020
CHPRC-2020-02, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

In February, Central Plateau Risk Management (CPRM) crews abated 486 feet of steam line asbestos insulation on above ground steam lines in the 200 East Area. At the 224B Facility, personnel initiated exterior asbestos abatement, mechanical isolations to support the cold and dark process, and finalized the 224B Removal Action Work Plan (RAWP). At Plutonium Uranium Extraction Plant (PUREX) North, personnel completed all radiological characterization of facilities 2714A, 214A, 210A and the interior of 2701AB. Finally, crews completed setup and installation of the Container Transfer Area (CTA) at the Reduction and Oxidation (REDOX) Canyon Facility.

EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
20-EMS-CPRM-OBJ-P1	Improve compliance, Environmental Management System (EMS) awareness and employee involvement	Present or facilitate a discussion of EMS topics to personnel on a minimum of four different occasions in fiscal year (FY) 2020 and recruit personnel (other than environmental) to participate in at least two compliance review/programmatic walk downs.	9/30/2020	15%

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	Current Month	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	2	N/A
Total Recordable Injuries	0	1	N/A
First Aid Cases	0	17	N/A
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

Central Plateau Risk Management (CPRM) Surveillance and Maintenance

- Completed tri-annual/annual 200 East Area outdoor waste sites surveillances.
- Performed miscellaneous facility surveillance (exterior only) for 222T, dry grout facility and hot semi.
- Completed B Plant exterior surveillance.

REDOX Canyon Risk Mitigation

- Repainted the hexone line and fixed contamination area in order to downpost the site as clean.
- Completed posting the established truck route and boundary location for the CTA and *Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA) waste storage area.
- Installed the REDOX stack sampler callout system and performed annual fan preventative maintenance.

224B Demolition Preparation

- Completed mechanical isolations of the 224B sanitary and process sewer lines, 224B building raw water supply line and the northwest potable water line.
- Removed deteriorating 145 square feet of plastic containment on the third floor of 224B.
- Completed the cleanup of the F Cell loadout-area flooring.
- Installed generators that are necessary for the decontamination shower trailer and facility heaters.
- Completed electrical verifications for the electrical isolation index. The new isolation index has been revised and approved.

PUREX North

- Completed radiological characterization of facilities 2714A, 214A, 210A and the interior of 2701AB.
- The PUREX Sampling Analysis Plan (SAP) was transmitted to regulators for a 45-day review.

Steam Line Asbestos Removal

- Completed waste processing and loadout of debris associated with 1,269 feet of asbestos insulated steam lines west of Baltimore Street in the 200 East Area.
- Abated 486 linear feet of asbestos-insulated steam line from Leg 18, east of Atlanta Avenue, in the 200 East Area.

MAJOR ISSUES

Issue

Management directed a work stand down at REDOX on October 2, 2019, to address a variety of issues, including step-off pad upgrades, temporary lighting and lack of ventilation throughout the facility. This management-directed work stand down was intended to obtain feedback from REDOX personnel on recommendations to improve the infrastructure at REDOX to support future work scope and minimize the risk of potential issues the project has experienced previously.

Corrective Action

On October 3, 2019, REDOX and CPRM management held a meeting with REDOX personnel to identify all issues and concerns that workers experience while performing risk mitigation activities at REDOX. From this meeting, a list of actions was developed and assigned to functional managers. A phased approach was established and categorized into two sections to address the issues identified and captured as actions. Phase I consists of improving infrastructure that would better facilitate entries into radiologically posted areas at REDOX and reviewing all governing documentation (i.e., work packages, radiological work permits, etc.) for adequacy. Phase II addresses the working conditions on the interior of REDOX in radiologically posted areas, including ways to improve ventilation and temporary power needs in the areas where risk mitigation activities are being performed. The list of actions is updated weekly and posted in a location that is easily accessible to all REDOX personnel.

Status

With engagement from REDOX personnel, REDOX management identified a path of improving the infrastructure at REDOX that includes moving the step-off pad outside the facility. Procurement activities are complete to improve the step-off pad. REDOX management and personnel have completed work package reviews and procedure reviews to address the future work scope. The fieldwork installation of the doublewide and shower trailers have begun and is expected to complete at the end of March, and the step-off pad will be operating by mid-April. The development of a work package to install temporary power and lighting within REDOX is expected to finish in June to ensure that Phase II activities can begin after the completion of Phase I.

Issue

In February, electricians entered the 224B Facility and noticed exposed electrical wiring hanging out of the back of a standalone metal equipment rack in the gallery control room. The lead electrician recognized the potential hazard and ordered the room cleared. The initial investigation determined this to be a legacy condition found in the older buildings scheduled for demolition. When the legacy buildings were closed, the common practice was to decommission the building's electrical equipment by air gapping or equipment isolation. However, records of these actions are not part of the current work record, and techniques/requirements have evolved over time.

Corrective Action

Determine how to bring the building to electrical neutrality before going to a cold and dark state and review recent events at the 224B Facility to determine if a common cause or a negative trend exists. In addition, all annual surveillance and maintenance (S&M) rounds on aged facilities are stopped until configuration control is established.

Status

CPRM senior management suspended all work packages for 224B Facility surveillances. Power to the building was shut off and controlled with a lockout/tagout until further notice. Continuing development of Energized Electrical Work Permits (EEWP) for each facility and performing electrical investigations as EEWPs are released for work.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

-  Increased Confidence
-  No Change
-  Decreased Confidence

Risk Title	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
RL-0040/WBS-040													
Explanation of major changes to the project monthly stoplight chart: Risks 224B-007: "Cold & Dark Latent Condition" and 224B-008: "Impacted by Other Hanford Contractors (OHC) or other CHPRC Projects" were added to the stoplight chart as realized risks. REDOX-VS-001: "Changes to Stack & Stack Monitoring Requirements Affect the Project Schedule" was added to the stoplight chart as a key project risk.													
Realized Risks (Risks that are currently impacting project cost/schedule)													
224B-007: "Cold & Dark Latent Condition"	During cold and dark activities, an unexpected condition (e.g., higher-than-expected radiological readings; inaccuracies in historical drawings and documentation; and discovery of unidentified electrical, mechanical or sewer/water utilities/configuration) results in unplanned work resulting in cost and schedule impacts to the project. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$100K, 24 days			Risk Event: The risk event was due to exposed electrical wires discovered during an electrical safe condition being performed, thus posing a potential electrical risk. This was identified for all CPRM legacy facilities that are currently being electrically investigated for potential electrical risk. <table border="1" style="width: 100%;"> <thead> <tr> <th>Risk Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Complete electrical isolations.</td> <td>April 2020</td> <td>10</td> </tr> </tbody> </table> Recovery Action Assessment: Electrical isolations are ongoing to complete cold and dark of the 224B Facility.	Risk Recovery Action(s)	FC Date	%	Complete electrical isolations.	April 2020	10			
Risk Recovery Action(s)	FC Date	%											
Complete electrical isolations.	April 2020	10											
224B-008: "Impacted by OHC (Other Hanford Contractors) or Other CHPRC Projects"	Delays by OHC or other CHPRC projects impacts the schedule and technical approach due to inconsistencies with CHPRC execution, resulting in recovery actions. Risk Handling Strategy: Control Probability: Low (10% to 25%) Worst Case Impacts: \$30K, 12 days			Risk Event: MSA Electrical Utilities (EU) impacted the 224B Facility electrical deactivation. The need for unforeseen electrical isolations due to an asbestos event at 2101M that removed the EU planner from completing the work package to support 224B. <table border="1" style="width: 100%;"> <thead> <tr> <th>Risk Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Mitigate OHC delays.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> Recovery Action Assessment: Asbestos issues continue to impact the MSA EU organization.	Risk Recovery Action(s)	FC Date	%	Mitigate OHC delays.	Ongoing	N/A			
Risk Recovery Action(s)	FC Date	%											
Mitigate OHC delays.	Ongoing	N/A											
REDOX-07: "Building Accessibility due to Water Intrusion"	Extensive leaks are experienced in the galleries due to the current state of the annex areas and silo roof, resulting in schedule delays to the project. Risk Handling Strategy: Control Probability: Likely (75% to 90%) Worst Case Impacts: \$0, 32 days			Risk Event: Leaking roofs have allowed water to accumulate in limited access areas of the facility. Due to electrical concerns, REDOX personnel have been unable to access the west end of the North Sample Gallery. <table border="1" style="width: 100%;"> <thead> <tr> <th>Risk Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Procure a contractor to patch the annex roof.</td> <td>June 2020</td> <td>5</td> </tr> <tr> <td>Develop plans to remove annexes.</td> <td>September 2020</td> <td>5</td> </tr> </tbody> </table> Recovery Action Assessment: No major changes in February. The project workers continue to repair minor roof defects. The new leak discovered in August continues to be evaluated to identify a path forward. A formal procedure for any discovery of liquids in REDOX was finalized in December. Two plans are being developed and are currently under review to address the leaking roofs at REDOX. Maintenance crews are looking into procuring a contractor to repair the roofs on the annexes where the leaks are expected to occur. The other plan is looking into the demolition of the annexes at REDOX once personnel from other projects are available and the work is authorized.	Risk Recovery Action(s)	FC Date	%	Procure a contractor to patch the annex roof.	June 2020	5	Develop plans to remove annexes.	September 2020	5
Risk Recovery Action(s)	FC Date	%											
Procure a contractor to patch the annex roof.	June 2020	5											
Develop plans to remove annexes.	September 2020	5											

Risk Title	Unmitigated Risk Impacts	Assessment		Comments												
		Month	Trend													
RL-0040/WBS-040																
REDOX-09: "Concerned Citizen"	Delays caused by public concern (i.e., stakeholders, other Hanford Site workers and concerned citizens) impact the project schedule and technical approach, resulting in recovery actions and causing unplanned, in-scope work. Risk Handling Strategy: Control Probability: Likely (75% to 90%) Worst Case Impacts: \$0, 16 days	●	↔	Risk Event: A concerned citizen called a stop work, which caused delays and unplanned work necessary to address the required action. <table border="1"> <thead> <tr> <th>Risk Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Procure and install step-off pad trailer.</td> <td>March 2020</td> <td>80</td> </tr> <tr> <td>Create and implement a phased approach to address identified concerns.</td> <td>June 2020</td> <td>50</td> </tr> <tr> <td>Upgrade temporary power/lighting and localized ventilation.</td> <td>June 2020</td> <td>5</td> </tr> </tbody> </table> Recovery Action Assessment: This risk was realized in October 2019. A detailed corrective action list was created with REDOX personnel input. A phased approach schedule was developed and implemented to address infrastructure upgrades necessary to support future work demands. Action items have been assigned to the appropriate responsible manager, and REDOX management is interfacing with personnel for weekly updates on corrective actions. Procurement activities are underway at REDOX to procure a new step-off pad trailer. The trailer was delivered in January, and final installation will complete in March.	Risk Recovery Action(s)	FC Date	%	Procure and install step-off pad trailer.	March 2020	80	Create and implement a phased approach to address identified concerns.	June 2020	50	Upgrade temporary power/lighting and localized ventilation.	June 2020	5
Risk Recovery Action(s)	FC Date	%														
Procure and install step-off pad trailer.	March 2020	80														
Create and implement a phased approach to address identified concerns.	June 2020	50														
Upgrade temporary power/lighting and localized ventilation.	June 2020	5														
REDOX-16: "Facility Integrity"	Problems with aging building systems and components (such as roofing and overall structure) result in inoperability or require unscheduled maintenance or outages that impact planned decontamination and decommissioning activities, resulting in schedule delays and cost impacts. Risk Handling Strategy: Transfer Probability: Medium (26% to 74%) Worst Case Impacts: \$0, 0 days	●	↔	Risk Event: Leaking roof results in unsafe working conditions for personnel. <table border="1"> <thead> <tr> <th>Risk Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Perform cold and dark activities to shut off building power.</td> <td>August 2020</td> <td>40</td> </tr> <tr> <td>Repair minor roof defects.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> Recovery Action Assessment: Integrity failures could lead to water issues within radiologically contaminated areas, causing a hazard to personnel. Going cold and dark will minimize the risk for electrical shock due to water. Electrical cold and dark activities have slowed, with electrical engineers and electricians unable to access specific locations of REDOX to continue building the electrical isolation index. The delivery of the substation was delayed due to manufacturer backups. Minor repairs to leaking parts of the roof can significantly reduce water intrusion, and the project workers continue to repair minor roof defects.	Risk Recovery Action(s)	FC Date	%	Perform cold and dark activities to shut off building power.	August 2020	40	Repair minor roof defects.	Ongoing	N/A			
Risk Recovery Action(s)	FC Date	%														
Perform cold and dark activities to shut off building power.	August 2020	40														
Repair minor roof defects.	Ongoing	N/A														
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)																
REDOX-05: "Collapse of Sand Filter"	Due to the close proximity of equipment in operation (cranes, forklifts used for waste load out, and steam lines and steam line stanchion removal activities), building age and structural integrity, a collapse of a REDOX ventilation system sand filter is experienced, resulting in cost and schedule impacts to the project. Risk Handling Strategy: Control Probability: Very low (<10%) Worst Case Impacts: \$260K, 48 days	●	↔	Risk Triggers: Due to the close proximity of equipment in operation (cranes, forklifts used for waste loadout and steam line stanchion removal activities), building age and structural integrity, a collapse of a REDOX ventilation system sand filter is experienced. <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Establish sand filter access boundary.</td> <td>August 2020</td> <td>50</td> </tr> <tr> <td>Implement communication plan between OHCs and other CHPRC projects.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> Mitigation Assessment: No major changes in February. Current work scope has not yet impacted this potential risk. Based on the contractor schedule, new temporary exhausters for REDOX are not expected to arrive until May 2020. In turn, this delay pushed the forecast dates for mitigation actions to establish the sand filter access boundary. Based on this information, the current plan would move any excavation work near the sand filters to summer 2020.	Mitigation Action(s)	FC Date	%	Establish sand filter access boundary.	August 2020	50	Implement communication plan between OHCs and other CHPRC projects.	Ongoing	N/A			
Mitigation Action(s)	FC Date	%														
Establish sand filter access boundary.	August 2020	50														
Implement communication plan between OHCs and other CHPRC projects.	Ongoing	N/A														

Risk Title	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
RL-0040/WBS-040													
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)													
ZSS-008: “Greater Than Expected Comments from Regulators”	<p>Comments from RL, regulators or stakeholders on documents submitted for approval are excessive, need multiple rounds of resolution or change requirements that result in increased schedule and labor requirements, causing cost and schedule impacts to the project.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Likely (75% to 90%) Worst Case Impacts: \$100K, 16 days</p>	●	↔	<p>Risk Triggers: As regulatory documents are developed to obtain final decisions, the regulator comments impose additional cleanup requirements than what are currently expected, resulting in rework and increased scope. Excessive comments from RL or regulators result in schedule delays during comment resolution.</p> <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Develop standardized approach to quickly evaluate and categorize comments for resolution.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Conduct routine meetings to address agency comments and to remain current on the influences from agencies.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in February. CHPRC hired a subcontractor with substantial experience in developing quality documentation for such regulatory paths in an effort to minimize comments. CHPRC is also actively meeting weekly and interfacing throughout the week with the RL federal project director to coordinate the document development in anticipation of regulatory questions and comments along with developing multiple informative documents to support this effort. In the event that regulator comments become excessive and start to impact project schedule negatively, RL may utilize their emergency authority under the <i>Atomic Energy Act</i>.</p>	Mitigation Action(s)	FC Date	%	Develop standardized approach to quickly evaluate and categorize comments for resolution.	Ongoing	N/A	Conduct routine meetings to address agency comments and to remain current on the influences from agencies.	Ongoing	N/A
Mitigation Action(s)	FC Date	%											
Develop standardized approach to quickly evaluate and categorize comments for resolution.	Ongoing	N/A											
Conduct routine meetings to address agency comments and to remain current on the influences from agencies.	Ongoing	N/A											
FY2020 Key Risks													
BOS-003: “Facility Integrity”	<p>Problems with aging buildings, systems, or components (e.g., roofing and structures, etc.) result in inoperability or recovery actions, causing unplanned in-scope work (e.g., unscheduled maintenance and outages).</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Likely (75% to 90%) Worst Case Impacts: \$1M, 0 days</p>	●	↔	<p>Risk Triggers: The project experiences problems with aging building systems and components (e.g., cribs, roofing and structures, etc.) during routine (S&M) activities. Scheduled maintenance activities must then be performed in addition to unplanned recovery actions.</p> <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Perform lifecycle evaluations of critical structures, systems and components.</td> <td>4/1/2020</td> <td>85</td> </tr> </tbody> </table> <p>Mitigation Assessment: No major changes in February. This risk was identified as a key project risk for FY2020. Structural analysis of 231-Z is under contract negotiation and the contract award is expected to occur the beginning of fiscal April. Routine S&M activities continue to be performed to mitigate risk.</p>	Mitigation Action(s)	FC Date	%	Perform lifecycle evaluations of critical structures, systems and components.	4/1/2020	85			
Mitigation Action(s)	FC Date	%											
Perform lifecycle evaluations of critical structures, systems and components.	4/1/2020	85											
REDOX-VS-001: “Changes to Stack & Stack Monitoring Requirements Affect the Project Schedule”	<p>Additional stack & stack monitoring requirements are issued by the regulators, resulting in cost impacts and schedule delays to the project.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Medium (26% to 74%) Worst Case Impacts: \$1.5M, 96 days</p>	●	↓	<p>Risk Triggers: Regulators issue additional stack and stack monitoring requirements that mandate significant changes to the current plan. The supplemental ventilation unit is currently identified in the air monitoring plan, as well as the associated monitoring requirements for the existing stack.</p> <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Negotiate changes to the air monitoring plan with regulators.</td> <td>September 2020</td> <td>0</td> </tr> </tbody> </table> <p>Mitigation Assessment: Project management identified this as a key risk for FY2020.</p>	Mitigation Action(s)	FC Date	%	Negotiate changes to the air monitoring plan with regulators.	September 2020	0			
Mitigation Action(s)	FC Date	%											
Negotiate changes to the air monitoring plan with regulators.	September 2020	0											
Unassigned Risks (Pending ownership of identified risks/opportunities)													
No unassigned risks identified in February.													

PROJECT BASELINE PERFORMANCE Current Month (CM) (\$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	5.0	4.6	5.0	(0.3)	-6.8%	(0.3)	-7.5%

Numbers are rounded to the nearest \$0.1 million.

CM Schedule Performance: (-\$0.3M/-6.8%)

The CM schedule variance is within reporting thresholds.

CM Cost Performance: (-\$0.3M/-7.5%)

The CM cost performance variance is within reporting thresholds.

Contract-To-Date (CTD) (\$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	587.8	581.2	564.9	(6.7)	-1.1%	16.3	2.8%	625.8	612.0	47.1	13.8

Numbers are rounded to the nearest \$0.1 million.

CTD Schedule Performance: (-\$6.7M/-1.1%)

The CTD schedule variance is within reporting thresholds.

CTD Cost Performance: (+\$16.3M/+2.8%)

The CTD cost variance is within reporting thresholds.

Variance at Completion (+\$13.8M/+2.2%)

The VAC is within reporting thresholds.

Contract performance report formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST (\$M)

RL-0040 Nuclear Facility D&D	FY2020		
	Projected Funding	Spending Forecast	Variance
Spending Forecast	93.3	92.5	0.7

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis

The FY2020 projected funding of \$93.3 million remains unchanged from last month. The FY spending forecast of \$92.5 million includes action anticipated to achieve funding targets. FY2020 funding aligns with the RL Integrated Priority List.

Critical Path Analysis

Critical path analysis can be provided upon request.

MILESTONE STATUS

The following table is a one-year look ahead of project breakdown structure RL-0040 *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement)-enforceable milestones, nonenforceable target due dates and commitments.

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-016-256	Complete Removal of All Waste Sites for FY2019 as updated or modified in M-16-17-01.	9/30/2019		TBD	In dispute resolution. In negotiations with RL to adjust the schedule.
M-016-250E	Submit to Ecology a 3-Year Rolling Prioritized Schedule to Implement Waste Site Removal Actions	3/31/2020		3/31/2020	On schedule.
M-037-10	Complete closure for 6 Specified TSD Units	9/30/2020		TBD	In abeyance.
M-085-100	Submit Removal Action Work Plan for 224T to EPA	9/30/2020		4/29/2020	On schedule.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS/DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
Regulator Approval 224B (B Plant) RAWP (2017-34)	8/16/2017(A)	02/12/2020(A)
Regulator Review Tier 2 PUREX SAP (2016-46)	06/10/2019(A)	05/06/2020
RL and Ecology Review PUREX North Closure Plan (2015-72)	07/18/2019(A)	04/13/2020
Regulator Review Tier 2 PUREX RAWP (2016-47)	07/23/2019(A)	04/04/2020
Regulator Review B Plant Engineering Evaluation/Cost Analysis (2016-14)	10/02/2019(A)	03/05/2020
RL Review 224T SAP (2019-37)	11/19/2019(A)	03/02/2020
Regulator Review PUREX AM (2016-53)	12/22/2019(A)	05/30/2020
RL Review Time Critical Removal Action Action Memorandum (AM) Z Cribs	01/31/2020(A)	03/05/2020
RL Review 224T RAWP (2019-36)	02/14/2020(A)	03/30/2020

Section F

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

CH2MHILL
Plateau Remediation Company
a Jacobs company



R. M. Geimer
Vice President for
K Basin Operations

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

M. A. Wright
Vice President for
Project Technical Services

February 2020
CHPRC-2020-02, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

K Basin Operations (KBO):

In February, KBO nuclear chemical operators and radiological control technicians continued to clear the footprint required to install and segregate waste into vertical pipe casings (VPC). Fabrication continued at the offsite vendor for the VPC, sparging station, tipping assembly and alignment tools. Revisions to the Remedial Design and Remedial Action Work Plan and a new air-monitoring plan were submitted to the U.S. Department of Energy (DOE), Richland Operations Office (RL), to support this upcoming work. In addition, crews completed work package updates for installing grouting manifolds into the below water engineered containers (ECs) and successfully installed the first set into one of the below water ECs. This will allow debris to be staged in the engineered containers for removal during demolition. Work package development continued in February for the sampling of the basin sand filter and settler tubes.

The Garnet Filter Media Removal System (GFMRS) installation made good progress in February. Essential electrical connections and power tie-ins were completed, critical valves inside the Garnet Filter Shield walls were successfully tested, and the primary piping systems and components were installed. Installation and testing is expected to wrap up in early March. Preparations continued for the Readiness Self-Assessment (RSA) that will begin April. The plan of action and RSA evaluation criteria were completed; the assessment team was selected and scheduled.

Soil remediation work continued with excavation activities on 116-KE-2 and began remediation excavation work on 100-K-47:2. The project sent 441 roll-on/ roll-off boxes filled with waste to the Environmental Restoration Disposal Facility (ERDF) for disposal during February.

Engineering documentation was approved and released for the 105-KE Reactor Interim Safe Storage (ISS) Enclosure. A statement of work for this construction project was updated and is expected to be issued for bid in mid-March. Field walk downs for the site were conducted to plan for trailer placements, power drop locations, fire protection spacing requirements, demolition standoff distances, steel laydown yards and parking locations.

Demolition of 166KE fuel storage bunker continued. Demolition of the west bay tank and 166KE Annex is now complete, and the west bulk storage fuel cell demolition is nearly complete. Demolition preparations for the 166KW fuel storage bunker began. Sampling will be performed to determine the quantity of residual oil remaining in these tanks.

River Risk Management Project (RRMP):

The 324 Building Disposition Project resumption activities continued following a stop work on November 14, 2019. Crew training, personal protective equipment (PPE) evaluation and proficiency demonstrations continued. During this resumption period, non-contamination area and minimum safe activities continued. The project completed steam coil repairs in the 324 Building heating system, completed cell dam test frame install at the Maintenance and Storage Facility (MASF) to support cell dam installation practice and completed structural improvements to the exterior wall on southwest side of 324E Building.

EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
20-EMS-KBO-OB1-P1	Evaluation of upcoming 100K Area work activities, which involve water discharge to the ground at the 100K Area.	Evaluate upcoming work from the Hanford Fire Department to ensure decontamination and decommissioning (D&D) and soil remediation activities at the 100K Area follow the water discharge to ground requirements per DOE/RL-97-67, Revision 3, <i>Pollution Prevention and Best Management Practices Plan for State Waste Discharge Permits ST 4508, ST 4509, and ST 4510</i> , and 100K-STD-OP-52370, <i>Discharges to Ground</i> .	9/30/2020	30%
20-EMS-KBO-OB2-P1	Improve compliance/pollution and spill prevention.	Evaluate the status of spill prevention, use of secondary containment, universal waste and other recycling compliance, and waste reduction opportunities for compliance with CHPRC procedures.	9/30/2020	40%

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	Current Month	Rolling 12 Months	Comment
Days Away, Restricted or Transferred	1	2	While providing support in Room 123 of the 324 Building, a worker went to sit down on a bench, lost their balance and fell backward. Their head made contact with bench behind them. Worker reported pain and dizziness; workers in Room 123 contacted a supervisor and a shift operations manager was notified. Hanford emergency medical services was called. Worker was transported to Kadlec for evaluation.
Total Recordable Injuries	0	1	N/A
First Aid Cases	0	13	N/A
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

100K Basin Operations

- 100K Closure Project:
 - o 100K completed 166KW Structural Integrity report and verified that the roof was structurally safe to support access by personnel.
 - o Completed and approved the 165KE demolition preparation work package and initiated preparation activities.
 - o 100K West Basin Deactivation
 - Received Hazard Review Board (HRB) approval with comments on work package K-19-00505, *Removal & Disposal of Pole Tools*. Addressed action items and incorporated into the work package as low as reasonably achievable (ALARA) management worksheet and industrial hygiene exposure assessment.
 - Completed a design change notice to support fabrication of additional VPC equipment, including a hose assembly to route fine particulates from the sparging station to VPC 3, a zeolite filtration basket and lid to capture the particulates, and alignment tools to help facilitate installation of the VPC base sections.
 - Completed electrical connections and power tie-ins for GFMRS.
 - o Conducted ISS/Safe Storage Enclosure field walk downs to plan the site for trailer placements, power drop locations, fire protection spacing requirements, demolition stand-off distances, laydown yards and parking.
 - o Excavation of the 116-KE-2 waste site continued and remediation of the 100-K-47:2 site began. Completed loadout of over 450 roll-off boxes filled with contaminated soil to ERDF for disposal in February.

RRMP, 324 Building Disposition Project

The design, procurement and fabrication of the following equipment continues as follows:

- o Cell dams for the 324 Building.
- o Universal cutting tool.
- o Water delivery system for the airlock.
- o Concrete box for soil waste bins.
- o Modified airlock rail.
- o Waste bins and waste containers for the 324 Building.
- o Modified shielded lids and frames (sets at acquisition verification services being inspected).
- o Self-leveling lifting device.
- o B Cell 10T Crane.
- Miscellaneous:
 - o Completed annual fire extinguisher inspections.
 - o Replaced EP-902 North steam-clamshell actuators.
 - o Performed inspections of the 324 Building man lifts.
 - o Performed steam system repairs to EP-901 and EP-902 steam coils and restored the steam system to operational.
 - o Performed annual calibration of tank liquid level instrumentation.
 - o Performed monthly emergency light, exit sign and ground-fault circuit interrupter inspections in Zone 2 of the 324 Building.
 - o Performed 324 Building monthly winterization/freeze protection preventative maintenance (PM).
 - o Completed installation of a carport.
 - o Completed monthly roof handrail inspections.
 - o Completed monthly wire rope PMs.
 - o Conducted portable ladder inspections.

- o Completed the quarterly Fire Protection Engineer walk down.
- o Performed waste loadout of roll-on/roll-off from the Container Transfer Area.
- o Replaced a ventilation system actuator.
- o Placed Personnel Contamination Monitor (PCM) 2 back into service at the 324 Building step-off pad.
- o Completed the quarterly fire riser inspection.
- o Completed a fire systems supply backflow test.
- o Completed the monthly Employee Zero Accident Council safety walk down.
- o Performed calibration of PCM 2.
- o Completed a 90-day heating, ventilation and air conditioning fan interlock test.
- o Held an emergency preparedness drill.
- o Performed monthly emergency light PMs.
- o Completed monthly supply/exhaust fan lube PM.
- o Installed temporary lighting on the third floor of the 324 Building.
- o Hosted an offsite vendor for a PPE evaluation.
- Facility preparations:
 - o Completed the gutter reroute on the north side of the 324 Building.
 - o Completed structural support modification on the southwest side of the 324 Building.
 - o Completed beryllium sampling in Room 308.
 - o Held HRB for installation of the north shoring wall to support structural modifications at the 324 Building.
- Mockup:
 - o Continued evaluation of waste container grouting at the American Rock Facility.
 - o Completed a cell dam test frame install.
 - o Completed a monthly overhead crane PM.
 - o Prepped the mockup facility for concrete pad placement to support the radiological training program being developed as part of resumption activities.
 - o Continued remote excavator arm and equipment training.
- Tours:
 - o A tour was conducted for employees from the National Institute of Technology, Fukushima College and Japan Atomic Energy Agency.
 - o Conducted a Science, Technology, Engineering and Math Road to Hanford student workshop.

Project Technical Support

- Training and procedures:
 - o Completed the pilot course for the 324 Building Advanced Radiological Overview. Received good worker feedback to adjust the course to meet the needs of the workforce and management.
- Readiness and Preparedness
 - o Conducted a full-up drill at the 324 Building with an explosion and injured/contaminated personnel. The overall drill was successful with some lessons learned regarding the time to address injured personnel. The drill resulted in the initial qualification of the Building Emergency Director (BED) along with maintenance of proficiency for the remaining facility emergency response organization team members.
 - o Conducted a 324 Building project tabletop drill for an explosive device resulting the establishment of proficiency for the BED.

MAJOR ISSUES

Issue

Task Cask Assembly-1 (TCA-1) is currently staged outside of the 105KW Facility and is awaiting disposition. TCA-1 was previously used to support transfer operations between 105KE and 105KW and is internally contaminated. Based on historical data, the cask contains residual amounts of basin water and sludge material. TCA-1 requires further characterization to verify the source material, radiation levels and location of contamination in order to determine a disposal pathway.

Corrective Action

Characterization of the TCA will require removal of the lid to obtain visual and radiological surveys. Due to anticipated levels of contamination and radiation, this work is presumed to pose a high radiological risk that requires mitigation through use of containments, temporary shielding and ventilation, and mockup training to complete the task. Engineering assessments along with advanced worker involvement will be necessary to plan the disposition of the TCA. Radiological engineering modeling indicates that if a dose rate measurement taken 10 inches above the bottom of the inner vessel exceeds 6 rem/hour, then the sludge heel will have to be removed and processed separately, most likely being directed to the north loadout pit VPC (if not grouted yet) or pumped into a separate approved container for disposition. If this condition does not exist, then the residual water and material can be solidified and the TCA transferred to ERDF for grouting and disposal.

Status

Results from a nondestructive assay (NDA) performed on a shielded ion exchange module staged west of 105 KW in December-January were evaluated as a test case to determine if NDA of TCA-1 is feasible for identifying specific radionuclide peaks in a shielded container. While the NDA of the IXM was not deemed successful due to the complex configuration of the shielded module, actinide peaks were identified through the heavy shielding indicating it will be a viable method for determining if residual solids/sludge contained within TCA-1 need to be removed vs. solidified without performing intrusive characterization. A walk down was performed on March 19, 2020 to identify configuration of the NDA trailer and review general logistics for completing the NDA of TCA-1. Setup of the area and completion of the NDA will be scheduled once fieldwork resumes. Results of the NDA will be used to support FY21 planning activities for dispositioning the TCA contents.

Issue

On November 14, 2019, an individual at the 324 Building Disposition Project was discovered with radiological contamination on the skin after egressing the airlock. The individual was decontaminated and cleared. However, due to the event, CH2M HILL Plateau Remediation Company (CHPRC) management suspended radiological work beyond minimum safe activities, pending identification and implementation of revised strategies and controls to reduce the potential of future contaminations.

Corrective Action

A team of subject matter experts (SMEs) from across CHPRC and Jacobs will review the strategies and controls in place and focus on identifying recommendations for improving radiological practices and controls in the building by taking a holistic look at the full spectrum of operations.

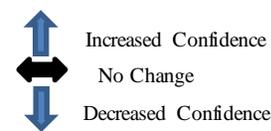
Status

Resumption team members have been actively working with project personnel and SMEs in identifying revised control strategies to reduce significantly the potential of future radiological contamination events. Existing processes and equipment are being evaluated to assist with developing recovery actions before resuming work in radiologically contaminated areas at the 324 Building. A draft root cause analysis and corrective action plan has been received and is being finalized.

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-0041/WBS-041				
Explanation of major changes to the project monthly stoplight chart: Updated 324 Building Disposition Project recovery actions as directed by the resumption team's findings. In addition, risk, <i>RCC-300-296-03: 300-296 Mockup Testing and Qualification of Remote Equipment/Process Identifies Major Modification Requirements</i> has been removed from the <i>FY20 Key Risk</i> section of the stoplight report, per project direction.				
Realized Risks (Risks that are currently impacting project cost/schedule)				

Risk Title	Unmitigated Risk Impacts	Assessment		Comments																					
		Month	Trend																						
RL-0041/WBS-041																									
RCC-300-296-30, "300-296 Design Changes Result in Increased Subcontractor Change Order(s)/ Claims"	<p>Due to the uncertainty and evolution of developments, design changes may be required upon completion of all design phases.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Very likely (>90%)</p> <p>Worst Case Impacts: \$3,318K, 136 days</p>	●	↔	<p>Risk Event: The verification of the final structural modification design has been delayed due to realization of other risks (see Recovery Assessment, below) while performing soil verification and pilot holing, requiring additional design effort from the design subcontractor.</p> <table border="1"> <thead> <tr> <th>Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Contractor prepares and submits a structure modification design - 30 percent to 60 percent (VE2810).</td> <td>8/15/18</td> <td>100</td> </tr> <tr> <td>Perform micropile demonstration and verification to support the structural modification design (VS1220A).</td> <td>1/24/19</td> <td>100</td> </tr> <tr> <td>Structural modifications design micropile comment resolution (VS1220C).</td> <td>5/13/19</td> <td>100</td> </tr> <tr> <td>Perform pilot holing for structural modifications (VS5010).</td> <td>9/7/19</td> <td>100</td> </tr> <tr> <td>Perform pit six soil verification testing/geotech (VS1220B).</td> <td>8/21/19</td> <td>100</td> </tr> <tr> <td>Contractor prepares and submits a structural modification design (VN1220).</td> <td>2/24/20</td> <td>99</td> </tr> </tbody> </table> <p>Recovery Assessment: No significant changes in February. Delays for completing the final structural design have been incurred due to the realization of risks RCC-300-296-31, "300-296 Elevated Contamination Encountered While Performing Structural Modifications," and RCC-300-296-01, "Latent Conditions Impact Facility Modifications." The realization of these risks halted fieldwork activities that were supporting completion of the final design. Corresponding actions that addressed radiological control measures for the pilot hole work scope were completed to support the final design. Following extensive comment resolution, the design is forecast for completion by February 24, 2020.</p>	Recovery Action(s)	FC Date	%	Contractor prepares and submits a structure modification design - 30 percent to 60 percent (VE2810).	8/15/18	100	Perform micropile demonstration and verification to support the structural modification design (VS1220A).	1/24/19	100	Structural modifications design micropile comment resolution (VS1220C).	5/13/19	100	Perform pilot holing for structural modifications (VS5010).	9/7/19	100	Perform pit six soil verification testing/geotech (VS1220B).	8/21/19	100	Contractor prepares and submits a structural modification design (VN1220).	2/24/20	99
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Perform micropile demonstration and verification to support the structural modification design (VS1220A).	1/24/19	100																							
Structural modifications design micropile comment resolution (VS1220C).	5/13/19	100																							
Perform pilot holing for structural modifications (VS5010).	9/7/19	100																							
Perform pit six soil verification testing/geotech (VS1220B).	8/21/19	100																							
Contractor prepares and submits a structural modification design (VN1220).	2/24/20	99																							
RCC-300-296-07, "300-296 Failure of a Radiochemical Engineering Cells (REC) Cranes (B Cell, A Cell, A/D & Airlock, and/or CHA Cranes)"	<p>Major crane repair must be performed during operations. This in-scope, unplanned work results in cost and schedule impacts to the project.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Likely (75% to 90%)</p> <p>Worst Case Impacts: \$3,000K, 208 days</p>	●	↔	<p>Risk Event: In August, the REC A/D Crane failed during operations.</p> <table border="1"> <thead> <tr> <th>Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Determine B Cell replacement crane options</td> <td>3/19/19</td> <td>100</td> </tr> <tr> <td>Award contract – B Cell 10T crane – 324 Building</td> <td>6/20/19</td> <td>100</td> </tr> <tr> <td>Perform follow-up A Cell and A/D Crane investigation</td> <td>TBD</td> <td>0</td> </tr> <tr> <td>Procure/Fabricate A/D Crane parts</td> <td>TBD</td> <td>0</td> </tr> <tr> <td>Perform A/D Crane repair</td> <td>TBD</td> <td>0</td> </tr> </tbody> </table> <p>Recovery Assessment: No significant changes in February. It is anticipated that decontamination of the A/D Crane will be necessary prior to performing repairs. Procurement and fabrication of decontamination equipment has been initiated to decrease further impacts to the project. Procurement of spare parts has been delayed due to additional verification of components and measurements that cannot be acquired at this time due to realization of risk, RCC-300-296-36, "Contamination Experienced During REC Cell Operations." The forecasted completion date for completing crane investigation, procuring spare parts and performing crane repairs will be addressed in the upcoming period, pending definition of revised practices and controls to minimize the potential of future radiological contamination.</p>	Recovery Action(s)	FC Date	%	Determine B Cell replacement crane options	3/19/19	100	Award contract – B Cell 10T crane – 324 Building	6/20/19	100	Perform follow-up A Cell and A/D Crane investigation	TBD	0	Procure/Fabricate A/D Crane parts	TBD	0	Perform A/D Crane repair	TBD	0			
Recovery Action(s)	FC Date	%																							
Determine B Cell replacement crane options	3/19/19	100																							
Award contract – B Cell 10T crane – 324 Building	6/20/19	100																							
Perform follow-up A Cell and A/D Crane investigation	TBD	0																							
Procure/Fabricate A/D Crane parts	TBD	0																							
Perform A/D Crane repair	TBD	0																							
RCC-300-296-36, "Contamination Experienced During Radiochemical Engineering Cells Operations"	<p>During REC cell cleanout (e.g., soil/debris removal, waste handling and facility modifications), the CHA, truck lock or other support area becomes contaminated or background dose is elevated to a level that operations cannot continue as currently planned. Significant cost and schedule impacts are incurred.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Very likely (>90%)</p> <p>Worst Case Impacts: \$225K, 70 days</p>	●	↔	<p>Risk Event: On November 14, 2019, low-level contamination was detected on an individual after exiting radiological step off pad.</p> <table border="1"> <thead> <tr> <th>Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Perform CHA floor scabbling and apply epoxy floorcoating</td> <td>7/17/19</td> <td>100</td> </tr> <tr> <td>Perform Project Resumption Activities – CA/CHA</td> <td>4/20/20</td> <td>25</td> </tr> <tr> <td>Return to Room 18 Work - Resumption Actions</td> <td>6/18/20</td> <td>10</td> </tr> <tr> <td>Return to Airlock Work - Resumption Actions</td> <td>7/13/20</td> <td>0</td> </tr> </tbody> </table> <p>Recovery Assessment: CHPRC has continued with analysis of events and is finalizing the corrective actions necessary. Resuming work scope in radiologically controlled areas within the building is pending an acceptable control strategy moving forward as recommendations and/or corrective actions. Recovery actions are being performed under three distinct group sets: general controlled area, Room 18, and airlock. Upon successful completion of resumption actions and training, each group will resume fieldwork scope.</p>	Recovery Action(s)	FC Date	%	Perform CHA floor scabbling and apply epoxy floorcoating	7/17/19	100	Perform Project Resumption Activities – CA/CHA	4/20/20	25	Return to Room 18 Work - Resumption Actions	6/18/20	10	Return to Airlock Work - Resumption Actions	7/13/20	0						
Recovery Action(s)	FC Date	%																							
Perform CHA floor scabbling and apply epoxy floorcoating	7/17/19	100																							
Perform Project Resumption Activities – CA/CHA	4/20/20	25																							
Return to Room 18 Work - Resumption Actions	6/18/20	10																							
Return to Airlock Work - Resumption Actions	7/13/20	0																							
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)																									
No critical risks are identified in February.																									

Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
RL-0041/WBS-041										
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)										
RCC-300-296-31, "300-296 Elevated Contamination Encountered While Performing Structural Modifications"	To validate the assumptions supporting the 324 Building structural modification design, pilot holes will be drilled into the soil beneath B Cell to collect necessary data. If data result in contamination levels that are much higher or deeper or the material encountered is different than anticipated, an alternative approach will require the development and/or fabrication of equipment for contamination mitigation and control. These impacts will limit progress on fieldwork activities. Risk Handling Strategy: Accept Probability: Likely (75% to 90%) Worst Case Impacts: \$3,318K, 256 days	●	↔	Risk Event: Unexpected contamination found while performing structural modification activities. <table border="1" style="width: 100%;"><thead><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr></thead><tbody><tr><td>This risk is accepted with no planned mitigation actions identified at this time.</td><td>N/A</td><td>N/A</td></tr></tbody></table> Mitigation Assessment: No significant changes in February. As low as reasonably achievable (ALARA) review evaluations for process improvements were completed in May. Increased PPE and additional control measures were successfully implemented. However, these controls have greatly reduced production rates than planned. This risk is currently accepted with no mitigation actions identified.	Mitigation Action(s)	FC Date	%	This risk is accepted with no planned mitigation actions identified at this time.	N/A	N/A
Mitigation Action(s)	FC Date	%								
This risk is accepted with no planned mitigation actions identified at this time.	N/A	N/A								
100K-SR-02, "100K Soil Remediation Subcontractor Equipment Is Contaminated"	Subcontractor equipment used for soil remediation activities is contaminated and is not able to be decontaminated to a suitable level so that it can be released. Risk Handling Strategy: Accept Probability: Very likely (>90%) Worst Case Impacts: \$1,480K, 0 days	●	↓	Risk Event: If radiological contamination is found within the excavation boundaries, subcontractor equipment could become contaminated and be unable to be released back to the subcontractor after soil remediation activities are complete. This action would result in the government having to purchase the equipment, resulting in cost impacts to the project. <table border="1" style="width: 100%;"><thead><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr></thead><tbody><tr><td>This risk is accepted with no planned mitigation actions identified at this time.</td><td>N/A</td><td>N/A</td></tr></tbody></table> Mitigation Assessment: No significant changes in February. CHPRC will attempt to perform comprehensive radiological surveys to validate if equipment or components are not contaminated. However, the ability to validate with 100 percent certainty that no contamination exist on an excavator before its introduced back into the general public is very difficult.	Mitigation Action(s)	FC Date	%	This risk is accepted with no planned mitigation actions identified at this time.	N/A	N/A
Mitigation Action(s)	FC Date	%								
This risk is accepted with no planned mitigation actions identified at this time.	N/A	N/A								
FY2020 Key Risks										
RCC-300-296-01, "300-296 Latent Conditions Impact Facility Modification"	Latent conditions, poor visibility in REC Cells or drawing omissions, inconsistencies or errors impact facility modifications (e.g., mechanical, electrical industrial hygiene/radiological control 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, 128 days	●	↔	Risk Trigger Metric: Based on a similar event experienced on March 28, 2019, unexpected beta-gamma contamination was detected while performing clearance surveys at the 324 Building step-off pad. Sampling determined it to be beta contamination (suspected strontium-90) without a corresponding gamma component, resulting in project impacts. <table border="1" style="width: 100%;"><thead><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr></thead><tbody><tr><td>Perform radiological surveying and analysis of facility drawings to reduce unexpected conditions while preparing for remote soil excavation activities.</td><td>Ongoing</td><td>N/A</td></tr></tbody></table> Mitigation Assessment: No significant changes in February. Follow-up contamination surveys were performed throughout the front side areas of the 324 Building using strontium controls (developed for Room 18) with no contamination detected. Based on the historical discovery of an elevated latent contamination level (CHPRC-1801178), this risk will be monitored continuously as routine preventive maintenance activities are in place to reduce the likelihood of occurrence.	Mitigation Action(s)	FC Date	%	Perform radiological surveying and analysis of facility drawings to reduce unexpected conditions while preparing for remote soil excavation activities.	Ongoing	N/A
Mitigation Action(s)	FC Date	%								
Perform radiological surveying and analysis of facility drawings to reduce unexpected conditions while preparing for remote soil excavation activities.	Ongoing	N/A								
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 the 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	●	↔	Risk Trigger Metric: Cell shield door fails, resulting in a shutdown of cleanout activities until repairs can be completed, similar to the event that occurred in September 2019. <table border="1" style="width: 100%;"><thead><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr></thead><tbody><tr><td>No discrete mitigation actions have been identified. However, preventive maintenance activities are being conducted to assure reliability of REC shield doors.</td><td>Ongoing</td><td>N/A</td></tr></tbody></table> Mitigation Assessment: No significant changes in February. To maintain REC shield door operability, engineering evaluations were conducted, resulting in the implementation of monthly performance measures and the procurement of spare parts. These mitigation efforts will reduce the likelihood of cost and schedule consequences, as applicable.	Mitigation Action(s)	FC Date	%	No discrete mitigation actions have been identified. However, preventive maintenance activities are being conducted to assure reliability of REC shield doors.	Ongoing	N/A
Mitigation Action(s)	FC Date	%								
No discrete mitigation actions have been identified. However, preventive maintenance activities are being conducted to assure reliability of REC shield doors.	Ongoing	N/A								

Risk Title	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
RL-0041/WBS-041													
RCC-300-296-15, "300-296 Cell Sealing, Micropile Installation, Interference Removal, Core Drilling and Soil Stabilization Takes Longer Than Planned"	<p>Unexpected field conditions are 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.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Medium (26% to 74%) Worst Case Impacts: \$3,317.6K, 96 days</p>	●	↔	<p>Risk Trigger Metric: The project experiences unexpected field conditions outside their control, impacting cell sealing, micropile installation, interference removal, core drilling and soil stabilization more difficult than planned.</p> <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Mobilize and train second soil stabilization crew.</td> <td>12/19/19</td> <td>100</td> </tr> <tr> <td>Perform pilot hole drilling to aid as a mitigation action for micropile installation.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in February. Mitigation efforts have reduced the probability of risk occurrence from likely to medium. However, due to the uniqueness involved with the work scope, there is potential for unexpected delays and additional pilot hole drilling efforts. Mobilizing and training of a second soil stabilization crew was completed on December 19, 2019.</p>	Mitigation Action(s)	FC Date	%	Mobilize and train second soil stabilization crew.	12/19/19	100	Perform pilot hole drilling to aid as a mitigation action for micropile installation.	Ongoing	N/A
Mitigation Action(s)	FC Date	%											
Mobilize and train second soil stabilization crew.	12/19/19	100											
Perform pilot hole drilling to aid as a mitigation action for micropile installation.	Ongoing	N/A											
RCC-300-296-06, "300-296 Remote Equipment Failure During Operations"	<p>Failures of the following procured equipment, including the floor saw, master slave manipulators (MSMs) used in REC cells, Remote Excavator Arms (REAs), through supports, cell mams, transfer mechanism and cameras and lights.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Low (10% to 25%) Worst Case Impacts: \$1,336K, 90 days</p>	●	↔	<p>Risk Trigger Metric: Failure of remote equipment will result in schedule delays due to equipment replacement and repairs as a result of radiation damage to other equipment installed in the REC Cells. These factors may shorten the operational life of equipment and result in replacing damaged equipment or components.</p> <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Procure MSM manipulators and storage carts</td> <td>12/30/19</td> <td>100</td> </tr> <tr> <td>Procure universal cutting tool</td> <td>11/8/20</td> <td>5</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in February. Potential impacts continue to be monitored and assessed for mitigation as project evolutions continue. Estimate to complete is updated monthly to reflect potential impacts of risk being realized.</p>	Mitigation Action(s)	FC Date	%	Procure MSM manipulators and storage carts	12/30/19	100	Procure universal cutting tool	11/8/20	5
Mitigation Action(s)	FC Date	%											
Procure MSM manipulators and storage carts	12/30/19	100											
Procure universal cutting tool	11/8/20	5											
RCC-300-296-33, "Increased Rad Exposure to Workers"	<p>High dose in the airlock causes excessive radiation exposure to personnel, resulting in in-scope unplanned work impacts of cost and/or schedule.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Low (10% to 25%) Worst Case Impacts: \$240K, 36 days</p>	●	↔	<p>Risk Trigger Metric: During REC entries, background and present dose could cause workers to reach allowable dose limits sooner than anticipated, resulting in cost and schedule impacts.</p> <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Continue use of increased shielding and ALARA controls</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Procurement of specialized containers - GC/44" Bins</td> <td>7/8/20</td> <td>5</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in February. Mitigation efforts have reduced the probability of risk occurrence to low. Procurement of specialized waste containers, shield lids and decontamination efforts has significantly minimized dose potential; however, the uniqueness of the work scope provides the potential for unexpected delays and/or cost impacts.</p>	Mitigation Action(s)	FC Date	%	Continue use of increased shielding and ALARA controls	Ongoing	N/A	Procurement of specialized containers - GC/44" Bins	7/8/20	5
Mitigation Action(s)	FC Date	%											
Continue use of increased shielding and ALARA controls	Ongoing	N/A											
Procurement of specialized containers - GC/44" Bins	7/8/20	5											
100K-SR-05, "Unexpected Site Conditions"	<p>Unexpected site conditions are encountered during soil excavation activities, resulting in recovery actions, causing unplanned and project in-scope work and schedule delays.</p> <p>Risk Handling Strategy: Accept</p> <p>Probability: Likely (75% to 90%) Worst Case Impacts: \$760K, 32 days</p>	●	↔	<p>Risk Trigger Metric: During soil excavation activities, different site conditions including underground utilities (i.e., wiring, fiber cable, pipes, asbestos, etc.), unknown construction material and greater than expected quantities of contamination could be encountered, resulting in increased volume of remediated soil. In addition, the overburden soil planned for backfill contains contaminates, resulting in the need to create a new clean-fill pit.</p> <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time (risk is accepted)</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in February. Risk is accepted</p>	Mitigation Action(s)	FC Date	%	None identified at this time (risk is accepted)	N/A	N/A			
Mitigation Action(s)	FC Date	%											
None identified at this time (risk is accepted)	N/A	N/A											

Risk Title	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
RL-0041/WBS-041													
100K-SFGF-02, "105 KW SF & GF – Subcontractor Design Changes During Fab/Construction"	<p>During fabrication and installation, problems with design are encountered resulting in design changes, resulting in cost and schedule impacts.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Medium (26% to 74%)</p> <p>Worst Case Impacts: \$400K, 32 days</p>	●	↔	<p>Risk Trigger Metric: During installation of the Engineered Container Retrieval and Transfer System tie-in equipment in support of VPC installation and the GMRS, design issues are identified that could not be determined during mockup testing at the MASF, resulting in design changes. This scenario would impact the firm fixed price construction contractor.</p> <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Integrated system testing/operator training in support of KW Basin garnet filter media removal.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>System constructability review and field walk downs will be implemented to reduce the risk.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in February. Installation of the GFMR is progressing with construction acceptance testing forecast for March 2020. All currently identified mitigation actions have been completed. This risk will continue to be monitored for additional mitigation or changes to the risk posture.</p>	Mitigation Action(s)	FC Date	%	Integrated system testing/operator training in support of KW Basin garnet filter media removal.	Complete	100	System constructability review and field walk downs will be implemented to reduce the risk.	Complete	100
Mitigation Action(s)	FC Date	%											
Integrated system testing/operator training in support of KW Basin garnet filter media removal.	Complete	100											
System constructability review and field walk downs will be implemented to reduce the risk.	Complete	100											
Unassigned Risks (Pending ownership of identified risks/opportunities)													
No unassigned risks identified in February.													

PROJECT BASELINE PERFORMANCE Current Month (CM) (\$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	9.4	8.5	10.5	(1.0)	-10.1%	(2.1)	-24.2%

Numbers rounded to the nearest \$0.1 million.

CM Schedule Performance (-\$1.0M/-10.1%)

The 324 Building Disposition Project experienced an unfavorable variance due to a contamination event that occurred on November 14, 2019. CHPRC management suspended work beyond minimum safe activities pending implementation of revised strategies and controls to reduce the potential of future contaminations. This was partially offset by schedule recovery associated with the 166KE storage and day tanks at 100K due to efficient mitigation of the free liquids waste stream.

CM Cost Performance (-\$2.1M/-24.2%)

The unfavorable variance for the 324 Building Disposition Project was primarily related to the contamination event that occurred on November 14, 2019, which resulted in the previously noted CHPRC management directed suspension of work. As a result, costs were experienced in the period without the ability to take performance as crews performed additional unplanned training to support proficient use of mockup equipment in response to resumption team recommendations.

The negative cost variance for the 100K Area is due to planning, testing and mockups to support 105KW debris waste disposition that have been more complex than planned. Higher-than-planned costs for GFMR installation due a stop work to address a seeping valve during installation testing and additional support required for procedure development. These negative variances were partially offset by a positive cost variance associated with efficiencies in ongoing demolition of the 166KE facility.

Contract-to-Date (CTD) (\$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	738.3	720.6	708.5	(17.7)	-2.4%	12.1	1.7%	817.3	800.9	92.4	16.5

Numbers are rounded to the nearest \$0.1 million.

CTD Schedule Performance (-\$17.7M/-2.4%)

The CTD schedule variance is within reporting thresholds.

CTD Cost Performance (+\$12.1M/+1.7%)

The CTD cost variance is within reporting thresholds.

Variance at Completion (+\$16.5M/+2.0%)

The variance at completion is within reporting thresholds.

Contract Performance Report Formats are provided in Appendix A.

FUNDS vs. SPEND FORECAST (\$M)

RL-0041 Nuclear Facility D&D – River Corridor	FY2020		Variance
	Projected Funding	Spending Forecast	
RL-0041 Spending Forecast	150.9	150.6	0.3

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis

There was no change in the FY2020 expected funding of \$150.9 million from January. The spending forecast increased \$0.3 million from January.

Critical Path Analysis

Critical path analysis can be provided upon request.

MILESTONE STATUS

The following table is a one-year look ahead of project breakdown structure RL-0041 *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement)-enforceable milestones, nonenforceable target due dates and commitments.

Number	Title	Due Date	Forecast Date	Status/ Comment
M-016-178	Initiate Deactivation of the 105KW Fuel Storage Basin	12/31/2019	12/12/2019(A)	Complete
M-093-28	Submit Change Package for Proposed Interim Milestones for 105KE/KW Reactor ISS	12/31/2019	12/19/2019(A)	Complete

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS/DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
DOE Independent Design Review – Issue for Construction Structural Modification	2/24/2020	3/16/2020
RL Approval Emergency Planning Hazards Assessment (EPHA) Final	3/10/2020	3/25/2020

Significant comments have been received on the design, requiring additional effort to resolve prior to finalization of the design, delaying the forecast CHPRC delivery date 10 days from the prior months' forecast.

The EPHA is being revised to address DOE comments, which caused the forecast CHPRC delivery date to slip 29 days from the prior month's forecast.

Section G

Fast Flux Test Facility Closure (RL-0042)

CH2MHILL
Plateau Remediation Company
a Jacobs company



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

February 2020
CHPRC-2020-02, 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 weekly 400 Area Waste Management Units surveillance.
- Completed 400 Area septic system inspection.
- Completed the statement of work for Tank 58 and Tank 87 inspections, and submitted the request for proposal. A contract award is expected by March 16, 2020.

MAJOR ISSUES

Issue

Initiated development of an engineering change request to replace the aging diesel engine fire pump P-28; however, work was stopped after determining that this replacement would require a long-term outage of the diesel backup to the fire water system.

Corrective Action

An alternative option is replacing the diesel fire pump P-61 in the 481-A Building; however, this work would require additional effort to restore power to the building and install additional valves to connect the P-61 replacement to the area-wide water.

Status

Development of functional requirements for an engineering evaluation has been completed and the project has received direction to proceed from the U.S. Department of Energy (DOE), Richland Operations Office. Efforts to address the aging diesel engine fire pump P-28 is pending a fiscal month April baseline change request to support budget requirements for this task.

RISK MANAGEMENT STATUS

None currently identified.

PROJECT BASELINE PERFORMANCE
Current Month (CM)
(\$M)

RL-0042 FFTF Closure	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	0.2	0.3	0.3	0.1	58.4%	0.1	22.9%

Numbers are rounded to the nearest \$0.1 million.

CM Schedule Performance: (+\$0.1M/+58.4%)

The CM schedule variance is within reporting thresholds.

CM Cost Performance: (+\$0.1M/+22.9%)

The CM cost variance is within reporting thresholds.

Contract-to-Date (CTD)
(\$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	30.0	30.0	25.3	(4.1)	-0.0%	4.7	15.5%	32.9	28.4	3.1	4.4

Numbers are rounded to the nearest \$0.1 million.

CTD Schedule Performance: (-\$4.1M/-0.0%)

The CTD schedule variance is within reporting thresholds.

CTD Cost Performance: (+\$4.7M/+15.5%)

The CTD favorable cost variance is due to reduction in surveillance and maintenance requirements at FFTF, as the facility was deactivated. In addition, the efficient use of resources supporting deactivation activities within the project scope of work contributed to this favorable cost variance.

Variance at Completion: (+\$4.4M/+13.5%)

The variance at completion reflects efficient use of resources supporting deactivation activities.

Contract Performance Report Formats are provided in Appendix A.

FUNDS VS. SPEND FORECAST (\$M)

RL-0042 FFTF Closure	FY2020		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	4.8	4.6	0.2

Numbers are rounded to the nearest \$0.1 million.

Funds Analysis

Fiscal year 2020 projected funding of \$4.8 million includes support for electrical component failures and configuration challenges, interest by regulators requiring additional inspections, and a recent failure of the water system/water piping. The spending forecast of \$4.6 million aligns with the RL Integrated Priority List.

Critical Path Analysis

Critical path analysis is not applicable to this project. The 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

a Jacobs company



February 2020
CHPRC-2020-02, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

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

DOLLARS IN

Thousands of \$

FORM APPROVED
OMB No. 0704-0188

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD										
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME Plateau Remediation Contract		a. FROM (YYYYMMDD) 2020 / 01 / 27										
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2020 / 02 / 23										
		c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO X YES (YYYYMMDD) 2009 / 09 / 18										
5. CONTRACT DATA																
a. QUANTITY 1	b. NEGOTIATED COST 6,318,614	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 543,569	d. TARGET PROFIT/FEE 278,070	e. TARGET PRICE 6,596,684	f. ESTIMATED PRICE 7,040,905	g. CONTRACT CEILING 6,596,684	h. ESTIMATED CONTRACT CEILING 7,040,905	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) Underwood, Teresa		b. TITLE Prime Contract Compliance Manager									
a. BEST CASE		6,714,471			c. SIGNATURE		d. DATE SIGNED (YYYYMMDD)									
b. WORST CASE		6,795,368														
c. MOST LIKELY		6,762,835	6,862,182	99,348												
8. PERFORMANCE DATA																
CAPN.PBS ITEM (1)	CURRENT PERIOD			VARIANCE			CUMULATIVE TO DATE			REPROGRAMMING ADJUSTMENTS			AT COMPLETION			
	WORK SCHEDULED (2)	WORK PERFORMED (3)	ACTUAL COST WORK PERFORMED (4)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	ACTUAL COST WORK PERFORMED (9)	SCHEDULE (10)	COST (11)	COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)
RL-0011 Nuclear Mat Stab & Disp PFP	3,015	1,678	4,886	-1,337	-3,208	1,143,332	1,126,376	1,227,805	-16,956	-101,429	0	0	0	1,143,564	1,239,715	-96,151
RL-0012 SNF Stabilization & Disp	0	0	2	0	-2	759,593	759,593	729,820	0	29,772	0	0	0	759,593	729,823	29,770
RL-0013 Solid Waste Stab & Disp	15,674	15,652	15,206	-22	445	1,552,570	1,542,717	1,458,971	-9,852	83,747	0	0	0	1,677,025	1,600,966	76,058
RL-0030 Soil & Water Rem-Grndwtr/Vadose	7,954	9,842	8,420	1,889	1,422	1,676,296	1,671,691	1,622,313	-4,606	49,377	0	0	0	1,757,619	1,702,692	54,926
RL-0040 Nuc Fac D&D - Remainder Hanfrd	4,959	4,622	4,968	-337	-346	587,826	581,164	564,914	-6,661	16,251	0	0	0	625,799	611,993	13,806
RL-0041 Nuc Fac D&D - RC Closure Proj	9,442	8,492	10,546	-950	-2,054	738,300	720,564	708,460	-17,736	12,104	0	0	0	817,320	800,857	16,463
RL-0042 Nuc Fac D&D - FFTF Proj	221	350	270	129	80	29,976	29,972	25,314	-4	4,658	0	0	0	32,868	28,424	4,444
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	41,265	40,637	44,298	-629	-3,662	6,487,893	6,432,077	6,337,597	-55,815	94,480	0	0	0	6,813,787	6,714,471	99,316
f. MANAGEMENT RESERVE														48,364		
g. TOTAL	41,265	40,637	44,298	-629	-3,662	6,487,893	6,432,077	6,337,597	-55,815	94,480	0	0	0	6,862,151		
9. RECONCILIATION TO CONTRACT BUDGET BASELINE																
a. VARIANCE ADJUSTMENT																
b. TOTAL CONTRACT VARIANCE														6,862,151	6,714,471	147,680

*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) 2020 / 01 / 27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2020 / 02 / 23	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> X <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18			

WBS.Resp Org Group ITEM (1)	CURRENT PERIOD						CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL	VARIANCE		BUDGETED COST		ACTUAL	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)	
	WORK SCHEDULED (2)	WORK PERFORMED (3)	COST WORK PERFORMED (4)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	COST WORK PERFORMED (9)	SCHEDULE (10)	COST (11)							
34 - Env Program & Strategic Plng	887	1,147	871	260	277	105,759	102,733	96,360	-3,026	6,373	0	0	0	114,187	107,385	6,802	
35 - Business Services	0	0	0	0	0	476,879	476,879	453,595	0	23,284	0	0	0	476,879	453,595	23,284	
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	95	0	4	9,094	9,094	6,013	0	3,081	0	0	0	9,926	6,848	3,078	
38 - Project Technical Services	0	0	0	0	0	118,497	118,497	99,132	0	19,364	0	0	0	118,497	99,132	19,364	
38 - PFP Closure Project	3,031	1,718	4,920	-1,312	-3,201	1,055,280	1,038,359	1,146,860	-16,921	-108,501	0	0	0	1,056,683	1,159,669	-102,986	
3C - Waste & Fuels Management Project	11,787	11,766	12,270	-21	-504	1,363,868	1,356,049	1,277,624	-7,818	78,426	0	0	0	1,457,500	1,386,836	70,664	
3D - Soil & Groundwater Remediation	7,042	8,670	7,522	1,628	1,148	1,468,711	1,467,131	1,418,169	-1,580	48,962	0	0	0	1,541,398	1,487,315	54,083	
3G - K Basin Oper & Plateau Remediation Project	4,446	4,855	5,413	409	-558	1,010,483	1,006,852	972,730	-3,631	34,122	0	0	0	1,050,166	1,015,036	35,129	
3H - River Risk Management Project	8,834	7,474	8,025	-1,360	-551	349,803	333,663	356,253	-16,139	-22,590	0	0	0	419,546	438,711	-19,165	
3K - Central Plateau Risk Reduction	5,140	4,907	5,183	-233	-276	528,409	521,709	510,368	-6,700	11,341	0	0	0	567,895	559,449	8,446	
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
d. UNDISTRIBUTED BUDGET														0	0	0	
e. SUBTOTAL (Performance Measurement Baseline)	41,265	40,637	44,298	-629	-3,662	6,487,893	6,432,077	6,337,597	-55,815	94,480	0	0	0	6,813,787	6,714,471	99,316	
f. MANAGEMENT RESERVE														48,364			
g. TOTAL	41,265	40,637	44,298	-629	-3,662	6,487,893	6,432,077	6,337,597	-55,815	94,480	0	0	0	6,862,151			

CONTRACT PERFORMANCE REPORT																	Form Approved	
FORMAT 3 - BASELINE																	OMB No. 0704-0188	
DOLLARS IN THOUSANDS																		
1. CONTRACTOR CH2M HILL Plateau Remediation Company b. LOCATION: Richland, WA				2. CONTRACT a. NAME: Plateau Remediation Contract b. NUMBER: RL14788 c. TYPE: CPAF d. SHARE RATIO:				3. PROGRAM a. NAME: Plateau Remediation Contract b. PHASE c. EVMS ACCEPTANCE NO YES X 9/18/2009				4. REPORT PERIOD a. FROM: 2020/01/27 b. TO: 2020/02/23						
5. CONTRACT DATA																		
a. ORIGINAL NEGOTIATED COST \$4,312,366				b. NEGOTIATED CONTRACT CHANGE \$2,006,247		c. CURRENT NEGOTIATED COST (A + B) \$6,318,614		d. ESTIMATED COST AUTH UNPRICED WORK \$543,569		e. CONTRACT BUDGET BASE (C + D) \$6,862,182		f. TOTAL ALLOCATED BUDGET \$6,862,151		g. DIFFERENCE (E - F) \$32				
h. CONTRACT START DATE 6/19/2008				i. DEFINITIZATION DATE 6/19/2008		j. PLANNED COMPL DATE 9/30/2020		k. CONT COMPLETION DATE 9/30/2020				l. EST COMPLETION DATE 9/30/2020						
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)	FY20 (17)	UNDISTRIB BUDGET (18)	TOTAL BUDGET (19)
			+1 Mar-20 (4)	+2 Apr-20 (5)	+3 May-20 (6)	+4 Jun-20 (7)	+5 Jul-20 (8)	+6 Aug-20 (9)										
a. PM BASELINE (BEGIN OF PERIOD)	6,446,627	41,616	42,074	54,180	43,758	41,347	54,788	0	3,391,477	391,653	471,323	504,826	485,028	470,649	563,065	541,344	0	6,819,363
b. BASELINE CHANGES AUTH DURING REPORT PERIOD																		
BCR-013-20-012R0 - Change in Approach for NDA Box Campaign to use CHPRC Labor R																(591)		(591)
BCR-013-20-014R0 - Remove IDF Raw Water Installation Scope																(586)		(586)
BCR-030-20-010R0 - RL-030 Scope Reductions																(6,466)		(6,466)
BCR-040-20-002R0 - Incorporate Additional 221-U Asbestos Abatement and Chemical																1,109		1,109
BCR-040-20-003R0 - Incorporate Procurement and Installation of Personnel Trails																585		585
BCR-041-20-005R0 - Add KE ISS Scope																372		372
BCR-041-20-006R0 - Correction to FY2020 RL-105KW Facility Deactivation Planning																0		0
BCRA-PRC-20-006R0 - HPIC Updates February FY2020																0		0
c. PM BASELINE (END OF PERIOD)	6,487,893	41,265	42,232	54,005	43,093	41,161	53,345	41,069	3,391,477	391,653	471,323	504,826	485,028	470,649	563,065	535,767	0	6,813,787
7. MANAGEMENT RESERVE																		
																		48,364
8. TOTAL																		
																		6,862,151

CLASSIFICATION (When Filled In)

**CONTRACT PERFORMANCE REPORT
FORMAT 4 - STAFFING**

Dollars in: FTE

FORM APPROVED
OMB No. 0704-0188

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME Plateau Remediation Contract		a. FROM (YYYYMMDD) 2020 / 01 / 27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2020 / 02 / 23	
		c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18			

5. PERFORMANCE DATA		FORECAST (Non-Cumulative)													AT COMPLETION
WBS.Resp Org Group	ACTUAL CURRENT PERIOD	ACTUAL END OF CURRENT PERIOD (Cumulative)	SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS					ATCOMPLETE	AT COMPLETION
			+1 MAR 2020	+2 APR 2020	+3 MAY 2020	+4 JUN 2020	+5 JUL 2020	+6 AUG 2020	SEP 2020	OCT 2020	NOV 2020	DEC 2020			
ORGANIZATIONAL CATEGORY (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	
300 - Office of the President	17	2216	13	13	15	15	15	15	12	0	0	0	0	0	2313
303 - Internal Audit	4	617	5	4	5	5	5	5	5	0	0	0	0	650	
304 - General Counsel	4	567	4	4	4	4	4	4	4	0	0	0	0	592	
32 - Safety Health Security & Quality	64	8768	63	62	62	62	62	62	62	0	0	0	0	9204	
34 - Env Program & Strategic PIng	41	6012	41	39	38	42	44	45	41	3	2	1	4	6311	
35 - Business Services	54	8346	56	59	63	64	65	65	64	0	0	0	0	8785	
36 - Prime Contract & Proj Integr	38	4569	38	35	36	38	38	39	39	0	0	0	0	4833	
37 - Resource Mgmt & Strategic Intg	43	3519	42	42	42	43	45	45	45	0	0	0	0	3822	
38 - Project Technical Services	37	8975	39	39	40	40	40	40	40	0	0	0	0	9253	
3B - PFP Closure Project	189	54624	168	130	93	5	2	2	2	1	0	0	0	55026	
3C - Waste & Fuels Management Project	418	60219	418	418	415	412	401	395	390	8	7	5	88	63174	
3D - Soil & Groundwater Remediation	266	43991	266	260	268	265	265	247	249	12	7	3	8	45837	
3G - K Basin Oper & Plateau Remediation Project	221	35430	217	221	205	211	217	203	197	26	22	1	1	36951	
3H - River Risk Management Project	229	9969	230	230	233	234	227	225	223	9	5	3	32	11619	
3K - Central Plateau Risk Reduction	246	21123	252	253	251	252	251	251	251	57	25	26	7	22998	
g. TOTAL DIRECT	1870	268944	1851	1810	1771	1690	1676	1642	1624	116	67	39	140	281370	

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 CH2MHILL Plateau Remediation Company			a. NAME Plateau Remediation Contract			a. NAME Plateau Remediation Contract		a. FROM (YYYY/MM/DD) 2020/01/27	
b. LOCATION (Address and ZIP Code) Richland, WA 99354			b. NUMBER DE-AC06-08RL14788		b. PHASE Base		b. TO (YYYY/MM/DD) 2020/02/23		
			c. TYPE CPAF	d. SHARE RATIO		c. EVMS ACCEPTANCE 2009/09/18 NO YES X			
	BCWS	BCWP	ACWP	SV in \$	SV in %	CV in \$	CV %	SPI	CPI
Current:	41,265	40,637	44,298	(629)	-1.5%	(3,662)	-9.0%	0.98	0.92
Cumulative:	6,487,893	6,432,077	6,337,597	(55,816)	-0.9%	94,480	1.5%	0.99	1.01
	BAC	EAC	VAC in \$	VAC in %	TCPI				
At Complete:	6,813,787	6,714,471	99,316	1.5%	1.01				
Explanation of Variance/Description of Problem:									
<p>Current Period Schedule and Cost Variance: The current month (CM) negative cost variance is primarily due to PFP and RRMP. At PFP, the performance on 236-Z rubble loadout has been slower than planned due to heavy accumulation of water. A change recommended by craft personnel in the demolition approach the last week of February was initiated and has shown early signs of improved performance. At RRMP, the 324 Facility negative cost variance is primarily due to the November 14, 2019, contamination event resulting in a management stop work in radiologically contaminated areas. Meanwhile, resumption and corrective action plans are being worked, while the project incurs costs without progress on planned scope.</p> <p>The CM negative schedule variance is also primarily due to PFP and RRMP; however, these variances were offset by schedule recovery in S&GRP for the delivery of the shop drawings for the 200 West Area air stripper package.</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: No corrective actions necessary.</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>The current month (CM) negative cost variance is primarily due to PFP and RRMP. At PFP, the performance on 236-Z rubble loadout has been slower than planned due to heavy accumulation of water. A change recommended by craft personnel in the demolition approach the last week of February was initiated and has shown early signs of improved performance. At RRMP, the 324 Facility negative cost variance is primarily due to the November 14, 2019, contamination event resulting in a management stop work in radiologically contaminated areas. Meanwhile, resumption and corrective action plans are being worked, while the project incurs costs without progress on planned scope.</p> <p>There was no change between the Contract Budget Base and the Total Allocated Budget on Format 3 for the month of February. The \$31K delta is a result of rounding over time for implementation of multiple change order definitizations.</p> <p>Eight BCRs were implemented in the current period. They included:</p> <ul style="list-style-type: none"> • BCR-013-20-012R0, Change in Approach for NDA Box Campaign to use CHPRC Labor Rather than Subcontractor • BCR-013-20-014R0, Remove IDF Raw Water Installation Scope • BCR-030-20-010R0, RL-030 Scope Reductions • BCR-040-20-002R0, Incorporate Additional 221-U Asbestos Abatement and Chemical Draining • BCR-040-20-003R0, Incorporate Procurement and Installation of Personnel Trailers at B-Plant and PUREX • BCR-041-20-005R0, Add KE ISS Scope • BCR-041-20-006R0, Correction to FY2020 RL-105KW Facility Deactivation Planning 									

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

• BCRA-PRC-20-008R0, HPIC Updates February 2020

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

Variance in Performance BAC and EAC: The VAC between the BAC and EAC this month is a +\$99.3 million, +1.5% and is within reporting thresholds.

Format 1 and 3 Contract Data:

Contract Price Adjustments

CPS - In Process		
	Total Authorized Unpriced Work	\$543,568
Approved Adjustments to Contract Price (not reflected in B.4-1 Table)		
	Total Negotiated Cost Changes	-
	Grand Total Adjustments	\$543,568

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	2020	\$0

There was no change to UB in December.

Management Reserve Activity

BCR Number	Title	PBS	Fiscal Year	MR
N/A	N/A	N/A	2020	\$0

There was no change in MR during December.

Fee Activity

BCR Number	Title	PBS	Fiscal Year	Fee
N/A	N/A	N/A	2020	\$0

There was no change to fee in December.

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: 3/24/2020	Approved by:	Date:
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Appendix B

Project Services and Support (WBS 000)

CH2MHILL
Plateau Remediation Company



K. A. Wooley
Vice President for
Safety, Health, Security
and Quality

M. A. Wright
Vice President for
Project Technical
Services

February 2020
CHPRC-2020-02, 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
Director of
Communications

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

M. W. Wells
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

a Jacobs company



J. L. Casper
Vice President for
Plutonium Finishing Plant
Closure Project

February 2020
CHPRC-2020-02, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

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

CH2MHILL
Plateau Remediation Company

a Jacobs company



J. L. Casper
Vice President for
Plutonium Finishing Plant
Closure Project

February 2020
CHPRC-2020-02, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

In December 2019, the Plutonium Finishing Plant's (PFP) Closure Project team safely completed removal and size reduction of the final glovebox from the 234-5Z Building. In February, the project submitted critical decision (CD)-4, *Approve Project Completion*, documentation to the U.S. Department of Energy (DOE), Richland Operations Office (RL), for approval and forwarding to DOE-Headquarters (HQ). The project is complete pending CD-4 approval.

The following are key metrics associated with this capital asset project (CAP).

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

KEY ACCOMPLISHMENTS

RL-0011_C1 Accomplishments:

- Documentation required for DOE-HQ's approval of the completion of DOE Order (O) 413.3B, "Program and Project Management for the Acquisition of Capital Assets," Critical Decision (CD) - 4, Project Completion, for Project RL-0011.R1/C1, Plutonium Finishing Plant (PFP) Decontamination and Dismantlement, was submitted to RL on February 5, 2020.

MAJOR ISSUES

None currently identified.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

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

Risk Title 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 stoplight chart: No major changes to the stoplight chart in February .				
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 February .				
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 February .				
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)				
No high-risk threats identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in February .				
Unassigned Risks (Pending ownership of identified risks/opportunities)				
No unassigned risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in February .				

CRITICAL PATH ANALYSIS

The remaining PFP critical path schedule related to the RL-0011.C1 – PFP Deactivation and Decommission Project consists of finalizing documentation for a CD-4 declaration for the PFP CAP 1 Project.

SCHEDULE MARGIN/MANAGEMENT RESERVE

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

CRITICAL DECISION MILESTONE STATUS

Number	Title	Due Date*	Forecast Date†	Status/Comment
CAP.1	Removal of 174 gloveboxes from 234-5Z	July 2020	03/23/2020	The current CAP 1 Project forecast completion date is March 23, 2020, to allow completion of documentation and approval from DOE-HQ.

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

†Forecast date reflects CD-4 due date without RL contingency.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

Nothing to report at this time.

DOE ACTIONS/DECISIONS

Working with RL to complete CD-4 closure actions.

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

a Jacobs company



J. L. Casper
Vice President for
Plutonium Finishing Plant
Closure Project

February 2020
CHPRC-2020-02, 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_C1 - PFP D&D (ARRA/Base)		a. FROM (YYYYMMDD) 2020 / 01 / 27																											
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2020 / 02 / 23																											
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO X YES (YYYYMMDD) 2009 / 09 / 18																													
5. CONTRACT DATA																																	
a. QUANTITY 1	b. NEGOTIATED COST 330,987	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 0	d. TARGET PROFIT/FEE 9.878	e. TARGET PRICE 340,865	f. ESTIMATED PRICE 344,858	g. CONTRACT CEILING 340,865	h. ESTIMATED CONTRACT CEILING 344,858																										
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) Underwood, Teresa																											
a. BEST CASE 332,587						b. TITLE Prime Contract Compliance Manager																											
b. WORST CASE 334,980						c. SIGNATURE																											
c. MOST LIKELY 334,980		330,987		-3,993		d. DATE SIGNED (YYYYMMDD)																											
8. PERFORMANCE DATA																																	
CAPN.PBS Control Account.PARS 2 WBS (2)		CURRENT PERIOD		CUMULATIVE TO DATE		REPROGRAMMING ADJUSTMENTS		AT COMPLETION																									
ITEM (1)		BUDGETED COST		VARIANCE		BUDGETED COST		VARIANCE		COST VARIANCE (12a)		SCHEDULE VARIANCE (12b)		BUDGET (13)		BUDGETED (14)		ESTIMATED (15)		VARIANCE (16)													
		WORK SCHEDULED (2)		WORK PERFORMED (3)		ACTUAL COST WORK PERFORMED (4)		SCHEDULE (5)		COST (6)		WORK SCHEDULED (7)		WORK PERFORMED (8)		COST WORK PERFORMED (9)		SCHEDULE (10)		COST (11)													
RL-0011 Nuclear Mat Stab & Disp PFP		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		0		235,514		235,514		259,800		0		-24,286		0		0		0		235,514		259,800		-24,286	
RL_0011_C1.06 Project Management & Support		0		0		0		0		0		11,990		11,990		12,477		0		-487		0		0		0		11,990		12,477		-487	
RL_0011_C1.90 Usage Based Services Distributions -PBS RL-11		0		0		0		0		0		7,221		7,221		7,731		0		-510		0		0		0		7,221		7,731		-510	
RL_0011_C1.98 Ramp-up and transition		0		0		0		0		0		19,399		19,399		19,253		0		147		0		0		0		19,399		19,253		147	
RL_0011_C1.99 PBS RL-11 UBS, G-n-A, Direct Distrib		0		0		0		0		0		41,028		41,028		33,328		0		7,700		0		0		0		41,028		33,328		7,700	
b. COST OF MONEY		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0	
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		0		0		0		0		0		0		0		0		0		0		0		0		0	
e. SUBTOTAL		0		0		0		0		0		315,152		315,152		332,587		0		-17,435		0		0		0		315,152		332,587		-17,435	
f. MANAGEMENT RESERVE		0		0		0		0		0		0		0		0		0		0		0		0		0		2,393		2,393		0	
g. TOTAL		0		0		0		0		0		315,152		315,152		332,587		0		-17,435		0		0		0		317,545		332,587		-15,042	
9. RECONCILIATION TO CONTRACT BUDGET BASELINE																																	
a. VARIANCE ADJUSTMENT																																	
b. TOTAL CONTRACT VARIANCE																																	
0																																	
-17,435																																	
317,545																																	
332,587																																	
-15,042																																	

*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) 2020 / 01 / 27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2020 / 02 / 23	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> X YES (YYYYMMDD) 2009 / 09 / 18			

WBS.Resp Org Group ITEM (1)	CURRENT PERIOD						CUMULATIVE TO DATE				REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)
	WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)						
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	254,725	280,007	0	-25,282	0	0	0	254,725	280,007	-25,282
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)	0	0	0	0	0	315,152	315,152	332,587	0	-17,435	0	0	0	315,152	332,587	-17,435
f. MANAGEMENT RESERVE														2,393		
g. TOTAL	0	0	0	0	0	315,152	315,152	332,587	0	-17,435	0	0	0	317,545		

CLASSIFICATION (When Filled In)

CONTRACT PERFORMANCE REPORT										DOLLARS IN THOUSANDS							Form Approved OMB No. 0704-0188	
FORMAT 3 - BASELINE																		
1. CONTRACTOR CH2M HILL Plateau Remediation Company b. LOCATION: Richland, WA			2. CONTRACT a. NAME: Plateau Remediation Contract b. NUMBER: RL14788 c. TYPE: CPAF d. SHARE RATIO:				3. PROGRAM RL_0011_C1 - PFP D&D (ARRA/Base) a. NAME: b. PHASE: Plateau Remediation Contract c. EVMS ACCEPTANCE NO YES X 9/18/2009			4. REPORT PERIOD a. FROM: 2020/01/27 b. TO: 2020/02/23								
5. CONTRACT DATA																		
a. ORIGINAL NEGOTIATED COST \$330,987			b. NEGOTIATED CONTRACT CHANGE \$0		c. CURRENT NEGOTIATED COST (A + B) \$330,987		d. ESTIMATED COST AUTH UNPRICED WORK \$0		e. CONTRACT BUDGET BASE (C + D) \$330,987		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 9/30/2020		k. CONT COMPLETION DATE 9/30/2020			l. EST COMPLETION DATE 9/30/2020								
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)	FY20 (17)	UNDISTRIB BUDGET (18)	
			+1 Mar-20 (4)	+2 Apr-20 (5)	+3 May-20 (6)	+4 Jun-20 (7)	+5 Jul-20 (8)	+6 Aug-20 (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	0	
b. BASELINE CHANGES AUTH DURING REPORT PERIOD None at this time																0	0	
c. 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	0	
7. MANAGEMENT RESERVE																		
8. TOTAL																		

**CONTRACT PERFORMANCE REPORT
FORMAT 4 - STAFFING**

Dollars in: FTE

FORM APPROVED
OMB No. 0704-0188

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL_0011_C1 - PFP D&D (ARRA/Base)		a. FROM (YYYYMMDD) 2020 / 01 / 27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2020 / 02 / 23	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> X YES (YYYYMMDD) 2009 / 09 / 18			

5. PERFORMANCE DATA															
WBS.Resp Org Group ORGANIZATIONAL CATEGORY (1)	ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	FORECAST (Non-Cumulative)												AT COMPLETION (15)
			SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS						
			+1 MAR 2020 (4)	+2 APR 2020 (5)	+3 MAY 2020 (6)	+4 JUN 2020 (7)	+5 JUL 2020 (8)	+6 AUG 2020 (9)	SEP 2020 (10)	OCT 2020 (11)	NOV 2020 (12)	DEC 2020 (13)	ATCOMPLETE (14)		
35 - Business Services	0	17	0	0	0	0	0	0	0	0	0	0	0	0	17
3B - PFP Closure Project	0	15442	0	0	0	0	0	0	0	0	0	0	0	0	15442
g. TOTAL DIRECT	0	15459	0	0	0	0	0	0	0	0	0	0	0	0	15459

Appendix C.2

Capital Asset Project

RL-0011.C2 - Demolition of PFP Facilities



J. L. Casper
Vice President for
Plutonium Finishing Plant
Closure Project

February 2020
CHPRC-2020-02, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

In February, the Plutonium Finishing Plant (PFP) Closure Project team completed loadout of Remote Mechanical A line debris, the remaining step in completion of demolition of the PFP main processing facility, changing the landscape at the Hanford Site, and marking a truly historic accomplishment in the cleanup mission. Crews also completed size reduction and loadout of ancillary facilities mobile office (MO)671 and HS47, as well as other miscellaneous structures. Moving into final debris disposition, crews began initial Plutonium Reclamation Facility (PRF) rubble loadout, including a completion of a management observation report on the loadout process and readiness. Ninety-four containers of final-phase demolition debris were shipped to the Environmental Restoration Disposal Facility (ERDF) for permanent disposal, including 10 Contaminated Equipment – Special Package Authorization shipments of containers of PRF debris.

Key Metrics

<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 the PFP Ancillary Facilities	-	-	15	15
COMPLETE Demolition of 234-5Z	-	-	1	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	15
Turnover Facility to Long-Term Surveillance & Maintenance	-	-	-	-

KEY ACCOMPLISHMENTS

RL-0011_C2 Accomplishments:

- Completed preparations for PRF rubble loadout, including grooming traveling paths, installing berms to control water flow, and placing gravel and dirt.
- Crews began initial PRF rubble loadout, including a completion of a Management Observation Report on the loadout process and readiness.
- Demolished ancillary facilities and moved the debris into the demolition pile. Facilities include connexes 240021, 240030, 240031, 240036, 240041, 240046, 113994, 652760, 4015329, 652940, 100265, 2014506, 2009801, and 224192; cargo containers CC1194, CC1046, MCC007, and CC0782; MO671 (MODEC) and MO605; and hazardous storage facility HC047 and the 234-5Z Facility.
- Shipped 94 containers of final-phase demolition debris to ERDF for permanent disposal, including 10 containers of PRF rubble debris.

MAJOR ISSUES

Issue

The project’s fiscal year (FY) 2020 forecast reflects spending approximately \$5.6 million more than the entire allotted carryover balance. Additional funding is required in FY2020 to complete PFP demolition. The forecast reflects that the current projected funding would not be exceeded until about April 2020.

Corrective Action

Resolve funding shortfall.

Status

CH2M HILL Plateau Remediation Company (CHPRC) is working with the U.S. Department of Energy (DOE), Richland Operations Office (RL), to address this issue and anticipates resolving it prior to April 2020 so that funding limitations will not impact project completion.

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-0011/CAP.2										
Explanation of major changes to the project monthly spotlight chart:										
Risk PFP-P-002: “Unavailable Resources” and PFP-P-014: “Bump and Roll, Labor Assets Management Program (LAMP), or Other Contractor Hiring of Bargaining Unit Employees Affecting Productivity,” were removed from the spotlight chart in February.										
Realized Risks (Risks that are currently impacting project cost/schedule)										
No realized risks identified in February.										
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)										
No critical risks identified in February.										
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)										
No high threat risks identified in February.										
FY2020 Key Risks										
PFP-P3-003: “Weather Impacts During 234-5Z Demolition”	Inclement weather, including moderate winds, low or high temperatures, above average snowfall or thunderstorms will result in in-scope unplanned work and schedule impacts to the project. Risk Handling Strategy: Control Probability: Low (10% to 25%) Worst Case Impacts: \$0, 8 days			Risk Trigger: High winds and cold weather may impact the project in the fall/winter seasons. Average winds above 15 miles per hour (mph) shut down demolition activities, and average winds above 30 mph require additional surveys. Cold weather prevents the foggers from operating and therefore shuts down fieldwork activities. <table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th style="width: 70%;">Mitigation Action(s)</th> <th style="width: 15%;">FC Date</th> <th style="width: 15%;">%</th> </tr> </thead> <tbody> <tr> <td>Install heat trace and installation on fixative tanks</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> Mitigation Assessment: Demolition of 234-5Z was completed in February. This risk is no longer a key risk for the project and will be removed from the spotlight chart prior to March reporting.	Mitigation Action(s)	FC Date	%	Install heat trace and installation on fixative tanks	Complete	100
Mitigation Action(s)	FC Date	%								
Install heat trace and installation on fixative tanks	Complete	100								

Unmitigated Risk Impacts	Assessment		Comments															
	Month	Trend																
RL-0011/CAP.2																		
<p>PFP-P4-002: “Weather Impacts During 236-Z Demolition”</p> <p>Increment weather, including moderate winds, low or high temperatures, and above average snowfall or thunderstorms will result in in-scope unplanned work and schedule impacts to the project.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Low (10% to 25%) Worst Case Impacts: \$0, 30 days</p>	●	↔	<p>Risk Trigger: High winds and cold weather may impact the project in the winter and spring seasons. Average winds above 15 mph shut down demolition activities, and average winds above 30 mph require additional surveys. Cold weather prevents the foggers from operating and therefore shuts down fieldwork activities.</p> <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Install heat trace and installation on fixative tanks.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p>Mitigation Assessment: No major changes in February. A winter preparedness plan was developed for PFP to mitigate impacts from cold weather. Heated tanks have been purchased and installed to ensure that a ready supply of fixative is always available in the demolition zone. Wind events continue to impact the project, including two days of work control zone restrictions due to high winds or expected high winds in February.</p>	Mitigation Action(s)	FC Date	%	Install heat trace and installation on fixative tanks.	Complete	100									
Mitigation Action(s)	FC Date	%																
Install heat trace and installation on fixative tanks.	Complete	100																
<p>PFP-P-004: “Stop Work From Concerned Workers”</p> <p>Concerned workers can implement 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.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Medium (26% to 74%) Worst Case Impacts: \$0, 16 days</p>	●	↔	<p>Risk Trigger: During PFP demolition activities, an increase in stop works could result in delays.</p> <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> <p>Mitigation Assessment: No major changes in February. Increased communication and worker involvement to avoid confusion and concern to minimize stop works have continued; stop works may impact the project schedule going forward. One stop work was called in February.</p>	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																
Unassigned Risks (Pending ownership of identified threats/opportunities)																		
No unassigned risks identified in February.																		

CRITICAL PATH ANALYSIS

The PFP critical path schedule begins with the completion of 236-Z Canyon loadout, anticipated by April 7, 2020, meeting the requirements for the *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) Milestone M-083-00A, “Plutonium Finishing Plant (PFP) Facility Transition and Selected Disposition Activities.” Demolition completion will be followed by site stabilization and demobilization, turnover to surveillance and maintenance, and project closeout activities, completing by June 24, 2020.

SCHEDULE MARGIN/MANAGEMENT RESERVE

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

CRITICAL DECISION MILESTONE STATUS

Number	Title	Due Date*	Forecast Date†	Status/ Comment
RL-011.C2	Completion of demolition of all PFP facilities.	7/31/2020	06/24/2020	The project began PRF rubble disposition in February, with completion forecasted for early April.

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

†Forecast date reflects CD-4 completion date (does not include RL schedule contingency).

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None to report at this time.

Appendix C.2

RL-0011.C2 - Demolition of PFP Facilities

Contract Performance Reports

Format 1 - Work Breakdown Structure

Format 2 - Organizational Categories

Format 3 - Baseline

Format 4 - Staffing

Format 5 - Explanation and Problem Analysis

CH2MHILL
Plateau Remediation Company

a Jacobs company



J. L. Casper
Vice President for
Plutonium Finishing Plant
Closure Project

February 2020
CHPRC-2020-02, 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) 2020 / 01 / 27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2020 / 02 / 23	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO X YES (YYYYMMDD) 2009 / 09 / 18			

5. CONTRACT DATA								
a. QUANTITY 1	b. NEGOTIATED COST 114,414	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 24,864	d. TARGET PROFIT/FEE 5,000	e. TARGET PRICE 119,414	f. ESTIMATED PRICE 180,101	g. CONTRACT CEILING 119,414	h. ESTIMATED CONTRACT CEILING 180,101	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) Underwood, Teresa	
b. WORST CASE 182,003		c. SIGNATURE		b. TITLE Prime Contract Compliance Manager		d. DATE SIGNED (YYYYMMDD)	
a. BEST CASE 174,528		c. SIGNATURE		b. TITLE		d. DATE SIGNED (YYYYMMDD)	
c. MOST LIKELY 175,101		139,277		-35,824			

8. PERFORMANCE DATA																	
CAPN.PBS Control Account.PARS 2 WBS (2)		CURRENT PERIOD					CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
		BUDGETED COST		ACTUAL		VARIANCE		BUDGETED COST		ACTUAL		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)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)
ITEM (1)																	
RL-0011 Nuclear Mat Stab & Disp PFP																	
RL_0011_C2.05 Disposition PFP Facility	2,526	1,287	3,741	-1,240	-2,454	138,650	121,937	164,663	-16,714	-42,726	0	0	0	138,704	174,528	-35,823	
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
d. UNDISTRIBUTED BUDGET														0	0	0	
e. SUBTOTAL	2,526	1,287	3,741	-1,240	-2,454	138,650	121,937	164,663	-16,714	-42,726	0	0	0	138,704	174,528	-35,823	
f. MANAGEMENT RESERVE														573			
g. TOTAL	2,526	1,287	3,741	-1,240	-2,454	138,650	121,937	164,663	-16,714	-42,726	0	0	0	139,278			

9. RECONCILIATION TO CONTRACT BUDGET BASELINE																
a. VARIANCE ADJUSTMENT																
b. TOTAL CONTRACT VARIANCE																
										-16,714	-42,726			139,278	174,528	-35,250

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

FORM APPROVED
OMB No. 0704-0188

DOLLARS IN Thousands of \$

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL_0011_C2 PFP Demolition Capital Asset Project		a. FROM (YYYYMMDD) 2020 / 01 / 27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2020 / 02 / 23	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18			

WBS.Resp Org Group	CURRENT PERIOD						CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL	VARIANCE		BUDGETED COST		ACTUAL	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)	
	WORK SCHEDULED (2)	WORK PERFORMED (3)	COST WORK PERFORMED (4)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	COST WORK PERFORMED (9)	SCHEDULE (10)	COST (11)							
ITEM (1)																	
3B - PFP Closure Project	2,526	1,287	3,741	-1,240	-2,454	138,650	121,937	164,663	-16,714	-42,726	0	0	0	138,704	174,528	-35,823	
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
d. UNDISTRIBUTED BUDGET														0	0	0	
e. SUBTOTAL (Performance Measurement Baseline)	2,526	1,287	3,741	-1,240	-2,454	138,650	121,937	164,663	-16,714	-42,726	0	0	0	138,704	174,528	-35,823	
f. MANAGEMENT RESERVE														573			
g. TOTAL	2,526	1,287	3,741	-1,240	-2,454	138,650	121,937	164,663	-16,714	-42,726	0	0	0	139,278			

CLASSIFICATION (When Filled In)

CONTRACT PERFORMANCE REPORT																	Form Approved			
FORMAT 3 - BASELINE										DOLLARS IN THOUSANDS					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 RL_0011_C2 PFP Demolition Capital Asset Project a. NAME: Plateau Remediation Contract b. PHASE c. EVMS ACCEPTANCE NO YES X 9/18/2009						4. REPORT PERIOD a. FROM: 2020/01/27 b. TO: 2020/02/23							
5. CONTRACT DATA			a. ORIGINAL NEGOTIATED COST 51,683		b. NEGOTIATED CONTRACT CHANGE \$62,730		c. CURRENT NEGOTIATED COST (A + B) \$114,414		d. ESTIMATED COST AUTH UNPRICED WORK \$24,864		e. CONTRACT BUDGET BASE (C + D) \$139,278		f. TOTAL ALLOCATED BUDGET \$139,278		g. DIFFERENCE (E - F) \$0					
h. CONTRACT START DATE 6/19/2008			i. DEFINITIZATION DATE 6/19/2008			j. PLANNED COMPL DATE 9/30/2020			k. CONT COMPLETION DATE 9/30/2020			l. EST COMPLETION DATE 9/30/2020								
6. PERFORMANCE DATA																				
ITEM (1)	BCWS CUM TO DATE (2)	BCWS FOR REPORT PERIOD (3)	SIX MONTH FORECAST						BUDGETED COST FOR WORK SCHEDULED (NON - CUMULATIVE)										UNDISTRIB BUDGET (18)	TOTAL BUDGET (19)
			+1 Mar-20 (4)	+2 Apr-20 (5)	+3 May-20 (6)	+4 Jun-20 (7)	+5 Jul-20 (8)	+6 Aug-20 (9)	FY09-13 (10)	FY14 (11)	FY15 (12)	FY16 (13)	FY17 (14)	FY18 (15)	FY19 (16)	FY20 (17)				
a. PM BASELINE																				
(BEGIN OF PERIOD)																				
	136,124	4,739	54	0	0	0	0	0	0	0	6,090	29,182	19,407	628	66,598	16,800	0	138,704		
b. BASELINE CHANGES AUTH DURING REPORT PERIOD																				
None at this time																				
c. PM BASELINE (END OF PERIOD)																				
	138,650	2,526	54	0	0	0	0	0	0	0	6,090	29,182	19,407	628	66,598	16,800	0	138,704		
7. MANAGEMENT RESERVE																				
																		573		
8. TOTAL																				
																		139,278		

**CONTRACT PERFORMANCE REPORT
FORMAT 4 - STAFFING**

Dollars in: FTE

FORM APPROVED

OMB No. 0704-0188

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL_0011_C2 PFP Demolition Capital Asset Project		a. FROM (YYYYMMDD) 2020 / 01 / 27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2020 / 02 / 23	
		c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18			

5. PERFORMANCE DATA															
WBS.Resp Org Group ORGANIZATIONAL CATEGORY (1)	ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	FORECAST (Non-Cumulative)												AT COMPLETION (15)
			SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS						
			+1 MAR 2020 (4)	+2 APR 2020 (5)	+3 MAY 2020 (6)	+4 JUN 2020 (7)	+5 JUL 2020 (8)	+6 AUG 2020 (9)	SEP 2020 (10)	OCT 2020 (11)	NOV 2020 (12)	DEC 2020 (13)	ATCOMPLETE (14)		
3B - PFP Closure Project	148	4822	138	97	72	0	0	0	0	0	0	0	0	0	5129
g. TOTAL DIRECT	148	4822	138	97	72	0	0	0	0	0	0	0	0	0	5129

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) 2020/01/27			
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2020/02/23			
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE					
				No X Yes (YYYYMMDD) 2009 / 09 / 18					

Direct Projects									
5. Evaluation	Budget	Earned	Actuals	SV in \$	SV in %	CV in \$	CV in %	SPI	CPI
Current:		2,526.3	1,286.7	3,740.5	-1,239.6	-49.1%	-2,453.8	-190.7%	0.51
Cumulative:		138,650.3	121,936.7	164,662.5	-16,713.6	-12.1%	-42,725.8	-35.0%	0.88
	BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:		138,704.4	174,527.7	-35,823.3	-25.8%	0	1.70		

Explanation of Variance/Description of Problem:

Current Month:

Schedule Variance: The unfavorable schedule variance is due to the lagging demolition of 234-5Z and 236-Z. The project was scheduled to be slab-on-grade in December 2019. Rubble loadout of 236-Z began in February 2020. The behind schedule condition is due to delays in sizing 234-5Z rubble, weather events and a conservative approach to demolition and loadout. In the current month, the project experienced accumulation of water during 236-Z rubble loadout. A change recommended by craft personnel in the demolition approach the last week of February was initiated and has shown early signs of improved performance.

Cost Variance: The unfavorable cost variance is due to slower than planned performance on 236-Z demolition. Due to weather events and heavy accumulation of water, progress has been hindered. A change recommended by craft personnel in the demolition approach the final week of February was initiated and has shown early signs of improved performance.

Cumulative to Date:

Schedule Variance: The cumulative to date schedule variance is within thresholds.

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. 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 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 General & Administrative (G&A) Rate for FY2017 resulted in a reduction to the Performance Measurement Baseline (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 was conducted and resumption actions identified.

This is partially offset by recognized efficiencies associated with the removal of the 18 sections of the PRF gallery gloveboxes, progress on demolition of 236-Z, demolition of the 2727-Z and 2729-Z facilities, the 242-ZA and 242-Z facilities, the 291-Z facility, 291-Z stack, 234-5ZA, 252-Z1, 2503-Z, 2735Z, 2734ZA, ZB, ZC, ZD, and ZL facilities.

Impact:

Schedule Impact: Completion of all demolition activities followed by site stabilization and demobilization, turnover to surveillance and maintenance, and project closeout activities forecast to occur in June 2020. The TPA Milestone TPA-083-00A, complete PFP facility transition and selected disposition activities of November 30, 2017, was not met.

Cost Impact: A negative VAC is reflective of impacts associated with recovery efforts from a contamination event that occurred on December 15, 2017.

Corrective Action:

Demolition and load out activities are progressing at an effective speed to mitigate potential safety and stop work concerns. The current forecast slab on grade date is April 7, 2020.

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

There was no change in the difference between the Contract Budget Base and the Total Allocated Budget on Format 3 for the month of February.

The following items are addressed, as applicable:

- Schedule Margin Analysis: No drawdowns of schedule margin were made in the month of February.
- Data dictionary Changes: No change in the month of February.
- Forecast Schedule with No Baseline: No change in the month of February.
- UB Balance: No change in the month of February.
- Negative Actual Cost of Work Performed (ACWP): No change in the month of February.
- Earned Actual Cost (EAC) Analysis: Best Case = \$174,528; Most Likely = \$175,101; Worst Case = \$182,003. The Best Case EAC is the EAC reported this month, which assumes all efficiencies gained contract-to-date will remain at completion with no realization of remaining risks. The Most Likely EAC is the ACWP plus what management believes is the most likely outcome based on a knowledgeable estimate of all authorized work, known risks, unknown risks, and probable future conditions. The Worst Case EAC is the ACWP plus the ETC plus realization of all identified risks, plus the scope identified in the Trend Log. The Best/Worst and Most Likely EAC values are documented in the Format 1 Report.
- Negative CV > VAC: No change in the month of February.
- Management Reserve Transactions: No change in the month of February.
- Freeze Period Changes: No change in the month of February.
- Retroactive Changes: No change in the month of February.
- Earned Value Type Changes: No change in the month of February.

Prepared by: Jason Knowlton

Date: 3/24/2020

Approved by:

Date: