

Monthly Performance Report

April 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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CH2MHILL
Plateau Remediation Company
a Jacobs company



L. Ty Blackford
President and
Chief Executive Officer

Monthly Performance Report

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April 2020
CHPRC-2020-04, Revision 1

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EXECUTIVE SUMMARY

CH2M HILL Plateau Remediation Company (CHPRC) has advanced cleanup throughout the Hanford Site during April. On March 24, 2020 RL issued CHPRC a partial stop work order (PSWO) due to the novel coronavirus (COVID-19) pandemic. A safe and orderly ramp down of all operations activities was implemented that ensured the continuation of non-portable minimum safe activities and maximized the use of teleworking for portable work. Following completion of the ramp down, operations, surveillance, and maintenance activities necessary to maintain safety and environmental compliance continued. CHPRC implemented plans to mitigate work delays and disruption and address impacts to programmatic work. In compliance with state and federal government COVID-19 guidance, and as required by the PSWO, CHPRC has and continues to take reasonable actions to protect and provide support to our workforce.

Major accomplishments included the following:

- Soil and Groundwater Remediation Project:**
 Revision 0 of the *Proposed Plan for Interim Action Remediation of the 200-BP-5 and 200-PO-1 Operable Units* was transmitted to the U.S. Department of Energy (DOE), Richland Operations Office (RL) on April 7, 2020, completing the associated RL key performance goal. All six pump and treat (P&T) facilities continued operations with a skeleton crew, continuing progress toward the goal of 2.2 billion gallons of groundwater treated for fiscal year (FY) 2020.
- Waste and Fuels Management Project (W&FWP):**
 The management of cesium and strontium capsule (MCSC) project, Project W-135, *Waste and Encapsulation and Storage Facility (WESF) Modifications*, line item project continued to work on DOE O 413.3B, *Program and Project Management for the Acquisition of Capital Assets, Critical Decisions (CD) 2/3*, deliverables. The revised WESF *Resource Conservation and Recovery Act (RCRA)* permit was transmitted to the Washington State Department of Ecology (Ecology) for approval.
- Plutonium Finishing Plant (PFP) Closure Project:** Crews maintained minimum safe operations in compliance with the RL partial stop work order (PSWO) by performing a survey of PFP radiological boundaries and re-applying soil fixative to the PFP demolition site.
- K Basins Operations (KBO):** Approval was received for the Hanford Site Fire Marshall Permit for Garnet Filter Media Removal (GFMR) and Engineering approved the GFMR System Operational Acceptance Test Plan. The Nuclear Chemical Operator qualification document for the Sampling Qualification was approved. The 100KW Site 3 Mobile Office Short Circuit Coordination Study/Arc Flash Analysis was reviewed and approved by the Environmental Compliance Officer for engineering. The Soil Remediation team was onsite to apply the monthly fixative application on disturbed soil at the 100K Area waste sites. The team also continued coordination with deactivation and demolition activities for remediation around the 105KW facility.



Crewmembers at the Environmental Restoration Disposal Facility applied additional soil to ensure the waste stored there remains protected from exposure. Crews also sprayed on a protective layer of fixative to limit dust generation from the site.

- **River Risk Management Project:** At the 324 Facility, Engineering continued to support engineered equipment procurements, revising the current Operations Plan, Project Execution Plan and completing the structural design review report. Equipment procurement continued for the cell dams, universal cutting tool, waste boxes, modified airlock rail system and the B Cell 10-ton crane. At the Integrated Disposal Facility, efforts continued on the revision of the Class 1 prime RCRA permit submittal to Ecology for replacing the floating covers on the leachate accumulation tanks with aluminum domes and installation of a connecting pipeline.
- **Central Plateau Risk Management (CPRM) Project:** On the Central Plateau, crews completed the monthly As Low As Reasonably Achievable Current Technology surveys at the canyon facilities and operated the Central Radiological Count Facility. In the 400 Area, crews completed the weekly and monthly water plan inspections. Finally, CPRM began social distancing packing and moves in MO-294 and MO-6114.

The President's Zero Accident Council (PZAC) meeting for April was cancelled due to the Coronavirus (COVID-19) safety measures. The Hanford Site remains in an essential mission critical operations posture.

Four *Thinking Target Zero* (TTZ) bulletins were published to convey important occupational, safety, health and environmental messages:

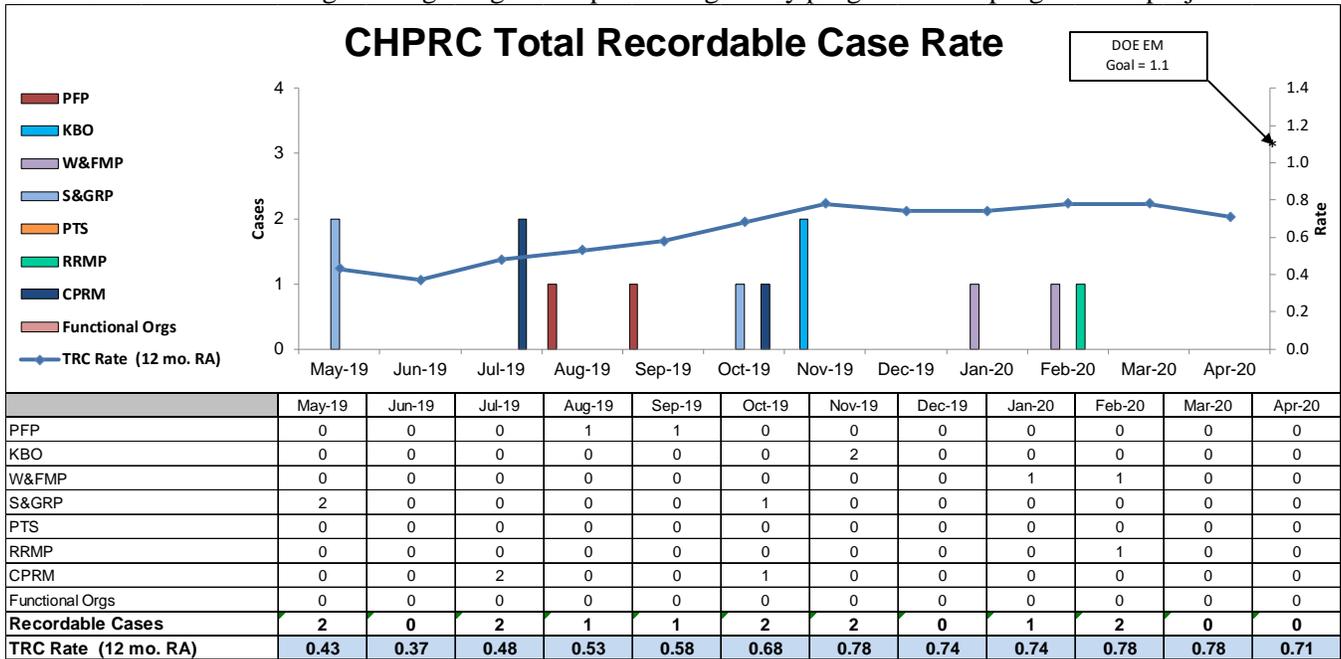
- Earth Day-month.
- Onsite review cancelled.
- Working from home.
- Seasonal safety.

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

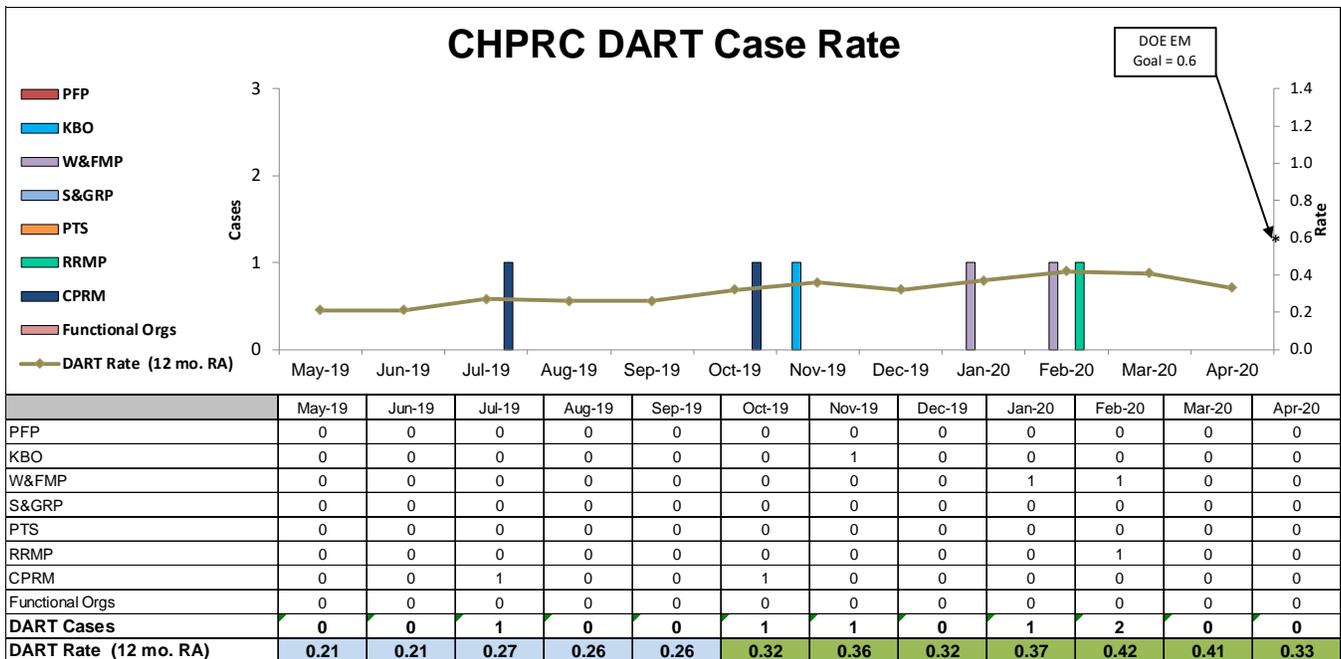
- Four Lessons Learned:
 - OPEXShare: *LL-2016-LLNL-15 Avoiding Problems with Wasps.*
 - OPEXShare: *2001-RL-HNF-0001 2001 Lessons Learned on "Purchasing Goods and Services During Site Emergencies.*
 - OPEXShare: *2013-RL-HNF-0022 Situational Awareness – Preventing Injuries, Accidents, and Property Damage.*
 - OPEXShare: *WRPS-IB-20-004 Ensure Required Analyses are Performed Prior to Design Completion.*
- Injuries.
- Weekly ethics moments.
- Vehicle events.
- Home health and safety.
- Bird nesting season.
- Hyperlink viewing tips.
- Watch for wildlife.
- Ergonomics at home.
- Cybersecurity.
- Emergency supply kit.
- Stay flexible and healthy.
- Avoid slip-trip-fall hazards.
- Proper footwear.
- Summer safety 2020.
- Fire safety and sanitizer.
- Fire safety precautions.
- Environmental share.

TARGET ZERO PERFORMANCE

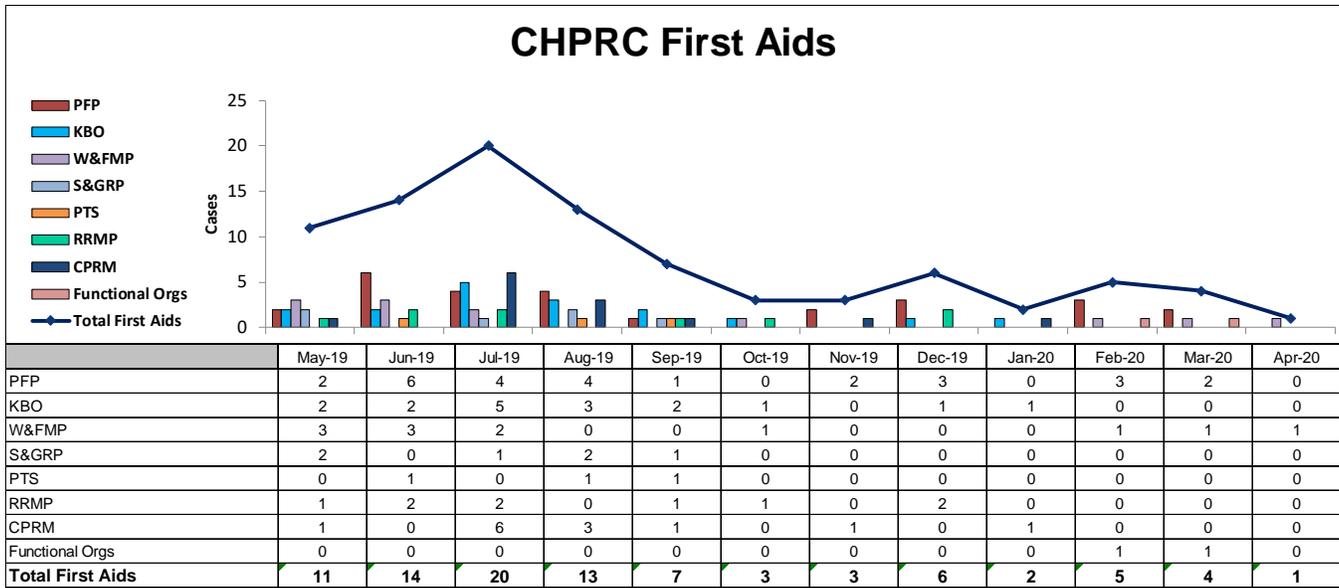
CHPRC continued focusing on integrating and implementing safety programs in all program and project areas.



Total Recordable Injury Case (TRC) Rate: The 12-month rolling average TRC rate of 0.71 is based on a total of 13 Recordable injuries. April had no Occupational Safety and Health Administration Recordable cases.



Days Away, Restricted or Transferred (DART) Workdays Case Rate: The 12-month rolling average DART rate of 0.33 is based upon a total of six Days Away cases. April had no reported DART cases.



First-Aid Case Summary: CHPRC reported one first aid case in April. The contributor was a sprains/strains/pains 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

Issue

Due to COVID-19, a national emergency was declared on March 13, 2020. On March 17, 2020, CHPRC senior management issued a companywide stop work on all fieldwork not associated with technical safety requirements, environmental compliance or emergency response. On March 18, 2020, CHPRC submitted letter CHPRC-2001123 to the RL identifying that COVID-19 may impact CHPRC’s ability to meet contractual requirements. On March 24, 2020, RL issued letter 20-PRO-0139, a PSWO for non-portable work. On April 22, 2020, RL issued letter 20-PRO-0157 (2001556A), extending the PSWO up to May 23, 2020. On April 28, 2020, CHPRC submitted letter CHPRC-2001123.1, updating the previous notice of potential impacts. The PSWO noted that CHPRC would have 30 days following termination of the PSWO to assert an equitable adjustment. CHPRC anticipates that in addition to schedule impacts, the PSWO will result in FY2020 and FY2021 cost impacts under the following clauses:

- Plateau Remediation Contract (PRC) Section Contract Clause I.115 Federal Acquisition Regulation (FAR) 52.249-14 “Excusable Delays” (April 1984)
- PRC Contract Clause I.102 FAR 52.243-2, “Changes – Cost Reimbursement” (August 1987) – Alternate II (April 1984), Alternate III (April 1984), and Alternate IV (April 1984)
- PRC Contract Clause I.89 FAR 52.236-2, “Differing Site Conditions” (April 1984)

Corrective Action

CHPRC will timely notify the RL contracting officer of events, incidents or circumstances causing grounds to submit request for equitable adjustments. Following receipt of RL’s partial stop work direction, a partial stop work implementation plan and restart plan were developed. To support workforce stability as directed by RL, CHPRC employees were provided attendance code “COV” to be used for charging hours not worked but in a paid status for time not spent on portable work or for those where performance of meaningful productive work is not practical. In addition, CHPRC provided similar guidance to our subcontractors that we believe will be critical to ramp up and execute to full performance capacity at the conclusion of the partial stop work period. This guidance also notified our subcontractors that justifiable absence time could be reimbursable by CHPRC.

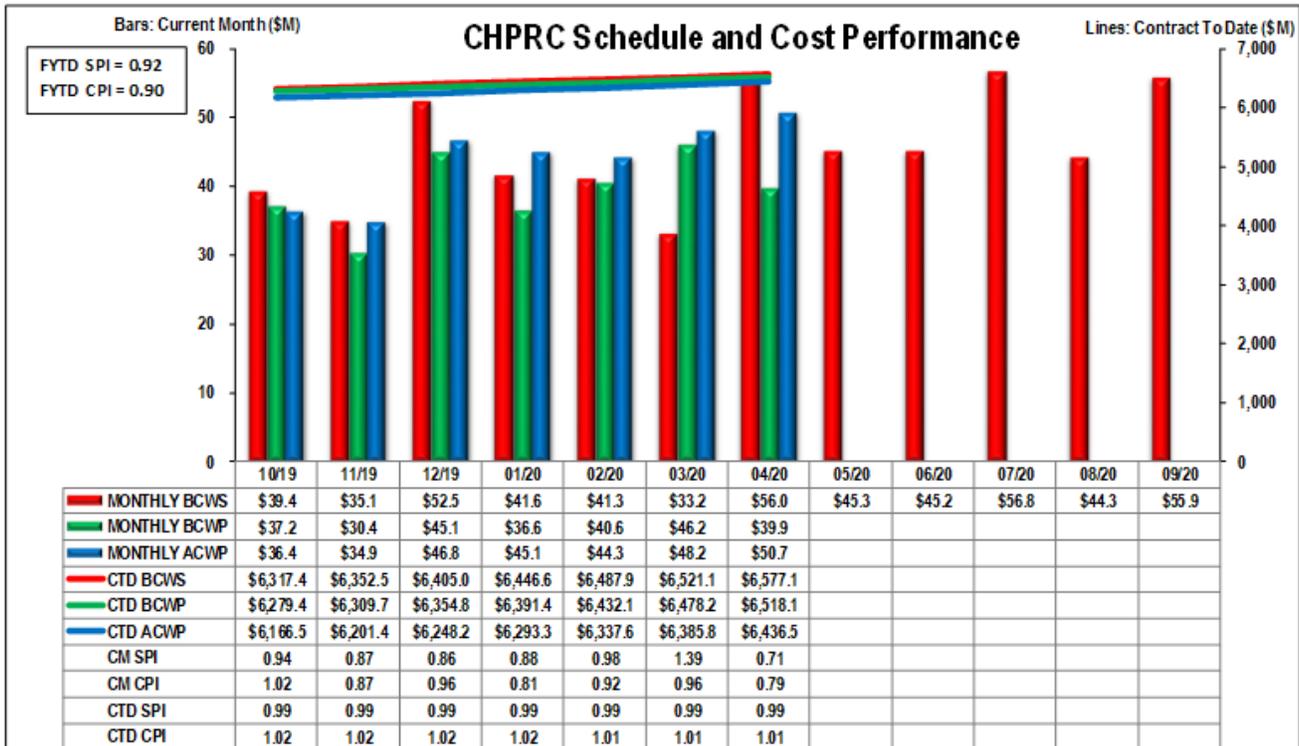
Status

The situation at the Hanford Site continues to evolve. CHPRC has implemented plans to mitigate work delays and disruption and cost-effectively address unanticipated impacts to programmatic work. CHPRC has established separate financial account(s) to collect costs associated with COVID-19. CHPRC remains in constant contact with RL to ensure related information requests and deliverables meet RL needs, and CHPRC stays abreast of potential changes in the essential minimum safe posture so they can be anticipated and addressed in a timely manner should they occur. Development of social distancing and staffing re-mobilization plans, new and revised CHPRC policies and procedures to address COVID-19 and new training for returning workers were initiated. Development of deliverables in response to COVID-19 and the PSWO were and continue to be coordinated with other Hanford contractors to ensure a collaborative, consistent approach for both work ramp down and resumption activities planned and proposed to RL. Additionally, CHPRC continues to communicate to RL that the ramp down and resumption activities will have both cost and schedule impacts on the work planned for FY2020 and FY2021. Major updates and communications in April included:

- On March 27, 2020, CHPRC provided CHPRC-2001260A R1, *Response to CH2M Hill Plateau Remediation Company (CHPRC) Partial Stop Work Order (Non-Portable Work Only)*.
- On April 2, 2020, CHPRC received 2001364 with concurrence of the technical scope and approach as described the CHPRC’s PSWO response CHPRC-2001260A R1.
- On April 10, 2020, CHPRC issued CHPRC-2001347, *Hanford Prime Contractors Response to Partial Stop Work Order Contracting Officer Plan Responses* (later distributed by Mission Support Alliance, LLC) in an effort to provide DOE a consolidated/joint response.
- On April 14, 2020, CHPRC issued CHPRC-2001260A R7 Contract Number DE-AC06-08RL14788 – *Execution Plan Update, Attachment G, Resumption of Work Plan, HNF-64785, Revision 1*.

In compliance with state and federal government COVID-19 guidance, and as required by or in consequence of the PSWO, CHPRC has and continues to take reasonable actions to protect and provide support to the workforce.

EARNED VALUE MANAGEMENT



	\$M						\$M					\$M		
	Current Period						Contract to Date					Contract Period		
	Budgeted Cost		Actual Cost		Variance		Budgeted Cost		Actual Cost		Variance			
	BCWS	BCWP	ACWP	Schedule	Cost	BCWS	BCWP	ACWP	Schedule	Cost	BAC	EAC	Variance	
RL-0011 - Nuclear Materials Stab & Disp PFP	-	0.0	3.7	0.0	(3.6)	1,143.6	1,129.9	1,236.1	(13.7)	(106.2)	1,143.6	1,252.4	(108.8)	
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	21.4	18.3	17.7	(3.1)	0.6	1,587.9	1,580.0	1,495.5	(7.9)	84.5	1,681.2	1,601.1	80.1	
RL-0030 - Soil & Water Rem-Grndwtr/Vadose	14.1	8.4	10.0	(5.7)	(1.7)	1,700.6	1,690.1	1,640.3	(10.6)	49.7	1,755.9	1,706.9	49.1	
RL-0040 - Nuc Fac D&D - Remainder	6.6	3.6	6.7	(3.1)	(3.2)	599.3	588.3	576.9	(11.1)	11.3	642.0	634.9	7.1	
RL-0041 - Nuc Fac D&D - RC Closure Project	13.6	9.3	12.4	(4.2)	(3.0)	755.6	739.9	732.1	(15.8)	7.7	809.9	803.5	6.4	
RL-0042 - Nuc Fac D&D - FFTF Project	0.3	0.3	0.2	(0.0)	0.1	30.5	30.5	25.7	(0.0)	4.8	32.2	27.8	4.4	
(Values are rounded to the nearest \$0.1M)	Total	56.0	39.9	50.7	(16.1)	(10.8)	6,577.1	6,518.1	6,436.5	(59.0)	81.6	6,824.4	6,756.4	68.0

Performance Summary

CHPRC continues to track completion of the contract within budget. Currently, a variance at completion of \$68.0 million is projected, with an additional \$48.4 million of management reserve (MR) for a total positive variance of \$116.4 million. For April, the project was 28.8 percent behind schedule and 27.1 percent over planned cost. Contract to date, the project was 0.9 percent behind schedule and 1.3 percent under planned cost.

The current month (CM) negative schedule and cost variances were the result of the PSWO issued to CHPRC by RL on March 24, 2020. The PSWO covered non-portable work activities not associated with continuation of minimum safe operations that could not be performed in a safe and compliant manner consistent with the Centers for Disease Control and Prevention COVID-19 guidelines and the “Stay Home, Stay Healthy” order issued by the governor of Washington State. Non-portable work activities is work that cannot be performed in a remote manner (e.g., telework from home). A large amount of discrete scope across the projects was demobilized and placed in

safe configuration in late March. CHPRC and subcontractor labor assigned to work that could not be performed in a remote manner charged to segregated accounts for unproductive time caused by the PSWO. The cost for the standby of subcontractor equipment remaining onsite during this period was also charged to these segregated accounts. As the method of earning performance for discrete scope is based on physical progress in the field, no performance was taken on many accounts, causing the negative schedule and cost variances.

FUNDING ANALYSIS

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

PBS	Project	FY2020		Variance
		Projected Funding	Spending Forecast	
RL-0011	Nuclear Materials Stabilization and Disposition	34.4	38.6	(4.1)
RL-0012	Spent Nuclear Fuel Stabilization and Disposition	0.6	(0.1)	0.6
RL-0013	Waste and Fuels Management Project	202.7	200.6	2.1
RL-0013	Management of Cesium and Strontium Capsules	14.3	1.3	13.0
RL-0030	Soil, Groundwater and Vadose Zone Remediation	126.0	118.5	7.4
RL-0040	Nuclear Facility D&D, Remainder of Hanford	93.3	90.2	3.0
RL-0041	Nuclear Facility D&D, River Corridor	150.9	147.2	3.6
RL-0042	Fast Flux Test Facility Closure	4.8	4.0	0.8
Total Fiscal Year Spending Forecast		626.8	600.3	26.5

Funds/Variance Analysis

FY2020 overall projected funding of \$626.8 million remains unchanged from last month. The spending forecast of \$600.3 million reflects an overall reduction of \$6 million from last month, primarily for work scope pushing into FY2021.

BASELINE CHANGE REQUESTS

In April, CHPRC approved and implemented six baseline change requests (BCRs) into the performance measurement baseline (PMB). Two of the six BCRs impacted the PMB budget. Each change request is identified in the following table:

Change Request #	Title	PBS	Summary of Change
BCR-013-20-017R0	<i>Cask Storage System Fabrication Schedule Correction</i>	RL-0013	This BCR modified the FY2020 PMB to incorporate the MCSC Project Cask Storage System fabrication work breakdown structure (WBS) change made via BCR-013-20-010R0 in March 2020. This BCR was processed to accomplish this alignment; however, some original baseline activities were left in instead of being moved to a new WBS. This BCR moves activities from WBS 013.25.01.04.01 to WBS 013.25.01.04.09 to align with the implemented subcontractor's schedule. This BCR did not change the PMB value.
BCR-030-20-013R0	<i>Detail Plan 100-KR-4 East Soil Flushing Planning Package</i>	RL-0030	The purpose of this BCR is to detail plan the 100-KR-4 East (KE) soil flushing planning package work scope. Based on preliminary results of the in-progress 100-KR-4 West (KW) soil flushing treatability test, the project requirements and execution approach for KE soil flushing have been established; planning and design may now commence. This BCR detail plans KE soil flushing planning and design and moves the scope from WBS element 030.11.07.03.02 to WBS element 030.11.07.03.01. This BCR decreases the PMB by \$211.4K.
BCR-030-20-014R0	<i>Incorporate Design for C & A-AX Farm Extraction System</i>	RL-0030	The purpose of this BCR is to accelerate the C Farm and A-AX Tank Farm extraction system in accordance with RL direction. In order to connect the C and A-AX Farm extraction wells to the 200 West P&T by September 30, 2021, the 30% design activity, originally planned in FY2021 out year planning, must be performed in FY2020. This BCR did not change the PMB value.
BCR-042-20-004R0	<i>RL-042 ISA Drum Treatability and Tank Lining Scope Reduction & Incorporation of IPL Directed Scope</i>	RL-0042	This BCR modified the FY2020 PMB to remove planned scope that will not be performed within the FY and incorporate scope to align with RL direction. Scope removed includes Fast Flux Test Facility (FFTF) water system compliance upgrades and remaining Interim Storage Area (ISA) sodium drum disposition. Scope incorporated includes 400 Area engineering evaluation for water systems upgrades and development of a non-time critical removal action evaluation/cost analysis for removing or stabilizing FFTF waste. This BCR decreases the PMB by \$639.6K
BCRA-PRC-20-012R0	<i>HPIC Updates April FY2020</i>	RL-0011 RL-0013 RL-0030 RL-0040 RL-0041 RL-0042	This administrative BCR documents Hanford Programs Integrated Control Module (HPIC) changes made in the April 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. Further, this BCRA documents the establishment of new functional organization codes to segregate cost associated with the COVID-19 pandemic. This BCR did not change the PMB value.

Change Request #	Title	PBS	Summary of Change
BCRA-PRC-20-013R0	<i>PRCBCR Log Reconciliation April 2020</i>	RL-0011 RL-0013 RL-0030 RL-0040 RL-0041 RL-0042	This administrative BCR reconciled the PRCBCR Log to correct rounding error deltas. This BCR did not change the PMB value.

The allocated (distributed) budget decreased \$851K in April.

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 April.

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 April.

Fee Activity

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

There was no change to fee in April.

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.

April 2020 Summary of Changes (\$M)

	FY2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2014-2018	FY2019	FY2020	Total
March 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
April 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
April 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

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

	FY 2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FYs 2014-2018	FY2019	FY2020	Contract Period Total	Total PMB
March 2020 Estimate											
PMB	3,391.5	391.7	471.3	504.8	485.0	470.6	2,323.5	563.1	547.3	6,825.3	6,825.3
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	595.6	7,151.7	7,151.7
April 2020 Change											
PMB											
Change to PMB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.9	-0.9	-0.9
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	-0.9	-0.9	-0.9
April 2020 Estimate											
PMB	3,391.5	391.7	471.3	504.8	485.0	470.6	2,323.5	563.1	546.4	6,824.4	6,824.4
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	594.8	7,150.9	7,150.9

SELF-PERFORMED WORK

Contract-to-Date Actual Awards & Mods (\$M) 10/1/2008 - 04/30/2020					
Reporting Category					
	\$ Value	%	Goal %		
SB	\$1,742.14	56.86%	49.3%	PRC clause H.20b small business requirement ≥ 17% of CHPRC Contract Price performed by SB.	
SDB	\$330.28	10.78%	8.2%		
SWOB	\$309.46	10.10%	7.5%	CHPRC Contract Value:	\$7,157.68
HUB	\$104.01	3.39%	2.2%	SB actual:	\$1,742.14
VOSB	\$268.39	8.76%	3.5%	SB Performed %:	24.34%
SDVO	\$174.90	5.71%	1.3%	PRC clause H.20a max self performed requirement ≤ 65% of Contract Price Self Performed	
NAB	\$109.41	3.57%	N/A	CHPRC Contract Value:	\$7,157.68
Large	\$819.20	26.74%	N/A	CHPRC Self Performed:	\$4,386.18
GOVT	\$5.62	0.18%	N/A	CHPRC Self Performed %:	61.28%
GOVT CONT	\$483.23	15.77%	N/A		
EDUCATION	\$0.17	0.01%	N/A		
NONPROFIT_	\$4.45	0.15%	N/A		
FOREIGN	\$9.22	0.30%	N/A		
Total	\$3,064.03	100.00%	N/A		

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

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 transuranic (TRU) materials outbound/inbound between the Hanford Site and Perma-Fix Northwest locations. RL is the authorized shipper and 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

April 2020
CHPRC-2020-04, Rev. 1
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

In April, the Plutonium Finishing Plant (PFP) Closure Project team transitioned the PFP site to minimum safe operations and maintained the site in that configuration in compliance with the U.S. Department of Energy (DOE), Richland Operations Office (RL) partial stop work order (PSWO) issued as a part of the Hanford Site response to the novel coronavirus (COVID-19) pandemic. Minimum safe operations consisted of a survey of PFP radiological boundaries and applying fixative to the PFP demolition area. Additionally, a small complement of resources performed limited planning activities in support of implementation of social distancing in anticipation of the future return to normal operations.

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	0	67 structures
Non-Radioactive Waste Shipped	0	89.8 m ³
Transuranic/Transuranic Mixed (TRU/TRU-M) Shipped	0 m ³	5,016 m ³
Low-level Waste (LLW)/Mixed (M)LLW Shipped	0 m ³	23,276 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</i> removal action at the PFP Complex.	Performs actions for final PFP turnover to surveillance and maintenance (S&M).	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	0	27	N/A
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

RL-0011 Accomplishments:

- Due to COVID-19, a national emergency was declared on March 13, 2020. On March 24, 2020, RL issued CH2M HILL Plateau Remediation Company (CHPRC) a PSWO as a part of the Hanford Site response to COVID-19. The PFP complex was transitioned to minimum safe operations and maintained in that configuration. Minimum safe operations consisted of the completion of required S&Ms to protect government property and maintain safety and environmental compliance. These efforts included surveying PFP radiological boundaries and applying fixative to the PFP demolition area.
- DOE Headquarters approval for Critical Decision-4, *Approve Project Completion*, for the PFP decontamination and dismantlement Capital Asset Project (RL-0011.C1), *PFP D&D* (removal of 174 gloveboxes from 234-5Z), as required by DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, was received.

MAJOR ISSUES

Issue

The project's fiscal year (FY) 2020 forecast reflects spending approximately \$4.1 million more than the entire allotted carryover balance. Although RL-0011 was allocated a supplemental \$4.9 million, additional funding is required in FY2020 to complete PFP demolition. The current forecast reflects that projected funding would not be exceeded until about May 2020.

Corrective Action

Resolve funding shortfall. Shift personnel assigned to the PFP Project to support the West Area Remediation Project (WARP) in RL-0040 when work resumption is expected in mid-June to conserve the limited personal protective equipment (PPE) inventory following the return to normal operations until site PPE inventory and resupply can support completing the RL-0011C.2 project. A secondary benefit of shifting labor resources to WARP activities will be to reduce the near-term PFP Project spending rate until this issue is resolved.

Status

CHPRC is working with RL to address this issue. A \$3 million funds reallocation between projects has been identified and should resolve the May 2020 expected funds overrun. Planning is underway to implement the temporary shift of personnel assigned to PFP to WARP to conserve limited PPE inventory.

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 spotlight chart: Risk PFP-P5-007, <i>Delay of PRF Debris Load Out</i> , was added to the spotlight chart as a realized risk in April.												
Realized Risks (Risks that are currently impacting project cost/schedule)												
No realized risks identified in April.												
PFP-P5-007: Delay of PRF Debris Load Out	The loadout of Plutonium Reclamation Facility (PRF) debris is delayed. Risk Handling Strategy: Accept Probability: Medium (26% to 74%) Worst Case Impacts: \$0, 32 days											
<p>Risk Event: The project has not executed debris loadout at the productivity rate that was planned. The project has experienced accumulation of water during PRF rubble loadout and more soil per loadout entry than expected.</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>Communicate PRF loadout options with RL.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Encourage additional worker involvement.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Recovery Action Assessment: Crews are loading out more soil associated with debris collection than expected. Additional loadout may be needed that will push project completion. A change recommended by craft personnel in the demolition approach has shown early signs of improved performance.</p>				Risk Recovery Action(s)	FC Date	%	Communicate PRF loadout options with RL.	Ongoing	N/A	Encourage additional worker involvement.	Ongoing	N/A
Risk Recovery Action(s)	FC Date	%										
Communicate PRF loadout options with RL.	Ongoing	N/A										
Encourage additional worker involvement.	Ongoing	N/A										
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)												
No critical risks identified in April.												
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)												
No high threat risks identified in April.												
FY2020 Key Risks												
PFP-P4-002: Weather Impacts During 236-Z Demolition	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. Risk Handling Strategy: Control Probability: Low (10% to 25%) Worst Case Impacts: \$0, 30 days											
<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>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No major changes in April. There were no weather events that impacted the project in April.</p>				Mitigation Action(s)	FC Date	%	None identified at this time.	N/A	N/A			
Mitigation Action(s)	FC Date	%										
None identified at this time.	N/A	N/A										

Unmitigated Risk Impacts	Assessment		Comments															
	Month	Trend																
RL-0011																		
PFP-P-004: Stop Work From Concerned Workers 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. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$0, 16 days	●	↔	Risk Trigger: During PFP demolition activities, an increase in stop works could result in delays. <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Update communications as positions change.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Provide new maps with entry/exit instructions when boundaries are revised.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Encourage additional worker involvement.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Increase frequency of post-job reviews.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> Mitigation Assessment: No major changes in April. 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.	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 April.																		

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	0.0	0.0	3.7	0.0	0.0%	(3.6)	-3,535.7%

Numbers are rounded to the nearest \$0.1 million.

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

The CM schedule variance is within threshold.

CM Cost Variance: (-\$3.6M/-3,535.7%)

The current month negative cost variance is the result of the PSWO issued to CHPRC by RL on March 24, 2020. The PSWO covered non-portable work activities not associated with the continuation of minimum safe operations that could not be performed in a safe and compliant manner consistent with the Centers for Disease Control and Prevention (CDC) COVID-19 guidelines and the “Stay Home, Stay Healthy” order issued by the governor of Washington State. Non-portable work activities are work that cannot be performed in a remote manner (e.g., telework from home). The project was demobilized and placed in a safe configuration in late March. CHPRC and subcontractor labor assigned to work that could not be performed in a remote manner were charged to control account 011.97.01.04 to collect and segregate unproductive time caused by the PSWO. As the method of earning performance is based on physical progress in the field, no performance was taken, causing the negative cost variance.

Contract to Date (CTD) (\$M)

WBS011/ 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	1,143.6	1,129.9	1,236.1	(13.7)	-1.2%	(106.2)	-9.4%	1,143.6	1,252.4	16.3	(108.8)

Numbers are rounded to the nearest \$0.1 million.

CTD Schedule Variance: (-\$13.7M/-1.2%)

The CTD schedule variance is within threshold.

CTD Cost Variance: (-\$106.2M/-9.4%)

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 PSWO issued to CHPRC by RL on March 24, 2020, covered non-portable work activities not associated with continuation of minimum safe operations that could not be performed in a safe and compliant manner consistent with CDC COVID-19 guidelines and the “Stay Home, Stay Healthy” order issued by the governor of Washington State. The project was demobilized and placed in a safe configuration in late March 2020. CHPRC and subcontractor labor assigned to work that could not be performed in a remote manner were charged to control account 011.97.01.04 to collect and segregate unproductive time caused by the PSWO.

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 291-Z 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 Building demolition.

Variance at Completion (VAC): (-\$108.8M/-9.5%)

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. Impacts attributable to COVID-19 concerns have pushed project completion, increasing the expected total project cost.

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	34.4	38.6	(4.1)

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis

Projected funding in FY2020 of \$34.4 million includes an increase of \$4.9 million in March. The spend forecast reflects a decrease of \$3.5 million over last month as crews are expected to shift away from the PFP Project to support WARP in RL-0040 when work resumes in mid-June (expected resumption time frame). CHPRC is working with RL to address the remaining 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 PRF loadout, which is anticipated by November 19, 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 S&M, and project closeout activities, completing by February 24, 2021. The five-month delay in the forecast completion of PRF loadout and demolition reflects the anticipated impacts of COVID-19 and the PSWO, including temporarily shifting labor resources to WARP activities to conserve PPE and the phased return to normal operations.

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		11/19/2020	The forecasted completion slipped five months due to a phased resumption approach and to conserve personal protective equipment following COVID-19 impacts.

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

April 2020
CHPRC-2020-04, Rev. 1
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. The project completed all administrative closeout activities in April. No additional actions are required, and this is the final report.

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	8	N/A
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

All administrative closeout activities completed in April. This is the final report.

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	(0.1)	0.7

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. 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, nonenforceable 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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M. A. Wright
Vice President for
Project Technical Services

April 2020
CHPRC-2020-04, Rev. 1
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

In the April reporting period (March 23 – April 22, 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 in April:

- All W&FMP facilities were placed in a standby mode and maintained in that configuration in compliance with the U.S. Department of Energy (DOE), Richland Operations Office (RL) partial stop work order (PSWO) issued as a part of the Hanford Site response to the novel coronavirus COVID-19. W&FMP facilities completed required surveillance and maintenance (S&M) activities.
- The Management of Cesium and Strontium Capsules (MCSC) Project W-135, *Waste Encapsulation and Storage Facility (WESF) Modifications*, continued to work on DOE O 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, Critical Decisions (CD) 2 / 3 deliverables. The revised WESF *Resource Conservation and Recovery Act of 1976 (RCRA)* permit was transmitted to the Washington State Department of Ecology (Ecology) for approval.
- At the Integrated Disposal Facility (IDF), efforts on the revision of the Class 1 prime RCRA permit submittal to Ecology for replacing the floating covers on the leachate accumulation tanks with aluminum domes and installation of a connecting pipeline.

EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
20-EMS-WFMP-OBJ1-P1	Complete installation of the maintenance and storage facility (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 transuranic (TRU)/TRU 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	72%
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 CHPRC transportation organization.	9/30/2020	25%

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred (DART)	0	2*	* 1 DART, Project Technical Services (PTS) in support of RL-0013 * 1 DART, Mission Support Alliance, LLC in support of RL-0013.
Total Recordable Injuries	0	0	N/A
First Aid Cases	1	17	4/23/2020 – Employee was walking along asphalt roadway on the west side of 2403 series waste storage buildings. Employee inadvertently stepped in a crack in the asphalt and heard a pop in the left knee. At completion of work activities, employee reported feeling discomfort in the left knee. The employee was taken to HPM Corporation for evaluation, released back to work with no restrictions.
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

Waste and Fuels Management Project

13.01 Project Management

- On April 15, 2020, CHPRC transmitted certified revised WESF permit addenda and responses to Ecology comments to DOE RL for transmittal to Ecology.

13.02 Capsule Storage and Disposition

- Completed 34 preventative maintenance (PM) packages.

13.03 Canister Storage Building (CSB)

- Completed 10 PM packages.

13.06 TRU Repackaging

- Completed repackaging of 110.7 m³ of TRU/TRUM waste for a total of 406 m³ fiscal year to date (FYTD).

13.07 Waste Receiving and Processing (WRAP)

- Completed 227 surveillances and one PM packages.

13.08 T Plant

- Completed 409 surveillances and 16 PM packages.

13.09 Central Waste Center (CWC) and Low-Level Burial Grounds

- Completed 348 surveillances and 21 PM packages,

13.15 TRU Disposition

- Continued enhancement of acceptable knowledge on TRU waste streams. Completed six of 10 waste streams.

13.16 Offsite Spent Nuclear Fuel Disposition

- Maintained coordination of offsite spent nuclear fuel disposition.

13.21 Mixed-Waste Disposal Trenches

- Completed 150 surveillances.

13.24 Management of Cesium (Cs) and Strontium (Sr) Capsules Project (MCSC)

- The MCSC Project is revising the Project W-135 CD-2, *Establish Project Baseline*, and CD-3, *Readiness to Start Construction* (as required by DOE O 413.3B) submittal based on recommendations of the CHPRC Project Review Board.
- The MCSC Project transmitted the MCSC Safety Design Strategy to RL for review and approval.

River Risk Management Project**13.10 Environmental Restoration Disposal Facility**

- Due to the DOE placing the Hanford Site in an Essential Mission Critical Operations posture in response to COVID-19, there were no disposal activities.
- Received 29,834 tons of waste for disposal FYTD. Any corrections in previous months are reflected in this total.
- Five weekly minimum safe inspections were performed. The minimum safe inspections were performed on the leachate system, septic system, inventory control areas and radiological boundary surveys.
- Additional cover soil was placed over PFP to cover waste as added protection during the Hanford Site closure.

13.12 Integrated Disposal Facility

- Care and Custody
 - Completed minimum safe inspections.
- IDF Operational Readiness
 - Due to RL placing the Hanford Site in an Essential Mission Critical Operations posture in response to COVID-19, there were no activities performed.

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 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 Perma-Fix Northwest 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 impacted initiation of cask storage area (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.

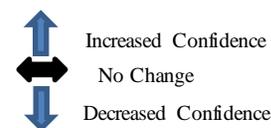
Status

CHPRC submitted an early procurement request to RL for review and approval on October 21, 2019. RL subsequently authorized the procurement and construction of the CSA and early procurement of CSS universal capsule sleeves and transportable storage container baskets (reference Correspondence No. 1905014/20_PFD-0003, dated November 26, 2019). During the fiscal month of April, RL formally authorized early procurement of the balance of the CSS hardware (reference Correspondence No. 2001559/20-PFD-0024, dated April 17, 2020). CHPRC and RL personnel continue to work to resolve the balance of the outstanding PDSA comments. While approval of the CSA PDSA is important to project baseline performance, this issue is no longer considered a significant issue and it will not be reported in future monthly reports.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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



Risk Title	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
RL-0013/WBS-013													
Explanation of major changes to the project monthly spotlight chart: Risk WSD-CSA-006, <i>Delays Associated with Temporary Authorization</i> , was removed from the spotlight chart in April as the risk has been closed and is no longer a threat to the project.													
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: Likely (75% to 90%) Worst Case Impacts: \$0, 48 days			Risk Event: Ecology provided technical comments on the permit addendum, expanding the number of DWMUs. <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> Recovery Action Assessment: No significant changes in April. 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.	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			Risk Event: Ecology's review time is impacting the permit management schedule. <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> Recovery Action Assessment: No significant changes in April. 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.	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			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. <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> Recovery Action Assessment: No significant changes in April. 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.	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	A delay in DOE approval of the PDSA/Fire Hazard Analysis delays start of CSA construction. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impact: \$0K, 96 days	●	↑	<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 impacted the start of CSA material procurement and construction.</p> <table border="1"> <thead> <tr> <th>Risk Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Work with RL to eliminate impact to project from delayed CSA PDSA approval.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p>Recovery Action Assessment: The project has recovered from this risk event as CHPRC received approval of an early procurement request for CSA construction from RL via 1905014/20-PFD-0003 on November 26, 2019. The delayed approval of the CSA PDSA has no further impact on the start of CSA material procurement and construction. This risk will be removed from the stoplight chart prior to May month end reporting.</p>	Risk Recovery Action(s)	FC Date	%	Work with RL to eliminate impact to project from delayed CSA PDSA approval.	Complete	100						
Risk Recovery Action(s)	FC Date	%														
Work with RL to eliminate impact to project from delayed CSA PDSA approval.	Complete	100														
WSD-CSS-009: PDSA Comments Result in Schedule Delays	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. Risk Handling Strategy: Control Probability: Likely (75% to 90%) Worst Case Impacts: \$1.7M, 192 days	●	↑	<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"> <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>Complete</td> <td>100</td> </tr> <tr> <td>Work with RL to eliminate impact to project from delayed CSA PDSA Approval.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p>Recovery Action Assessment: The project has recovered from this risk event as CHPRC received approval of an early procurement request for CSS procurement and fabrication from RL via 2001559/20-PFD-0024 on April 17, 2020. The delayed approval of the CSA PDSA has no further impact on the start of CSS material procurement and fabrication. This risk will be removed from the stoplight chart prior to May month-end reporting.</p>	Risk Recovery Action(s)	FC Date	%	Receive RL approval of CSS early procurement as requested via CHPRC-1904278.	Complete	100	Work with RL to eliminate impact to project from delayed CSA PDSA Approval.	Complete	100			
Risk Recovery Action(s)	FC Date	%														
Receive RL approval of CSS early procurement as requested via CHPRC-1904278.	Complete	100														
Work with RL to eliminate impact to project from delayed CSA PDSA Approval.	Complete	100														
WSD-W135-36: MASF Mockup Construction Subcontractor Performance	The MASF mockup construction contractor fails to perform per the proposal or fails to meet CHPRC expectations, leading to schedule delays. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$350K, 64 days	●	↔	<p>Risk Event: The MASF mockup construction contractor does not manage their subcontractors effectively and submits fabrication drawings that cannot be approved. Workmanship in the field is not adequate and results in nonconformance report (NCR) conditions that require rework.</p> <table border="1"> <thead> <tr> <th>Risk Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Set clear expectations for quality of shop drawings.</td> <td>Complete</td> <td>100%</td> </tr> <tr> <td>Work with construction contractor to expedite approval of shop drawings for fabrication.</td> <td>Complete</td> <td>100%</td> </tr> <tr> <td>Provide additional oversight of apprentice employees.</td> <td>Ongoing</td> <td>75%</td> </tr> </tbody> </table> <p>Recovery Action Assessment: No significant changes in April. Mockup construction contractor submitted fabrication drawings that were low quality and could not be approved. Multiple rounds of submittal review, comment, resubmit and review were necessary prior to authorization of shop fabrication of the structural steel, causing schedule delay. All shop drawings are now approved. Work in the field was performed using incorrect means and methods by apprentice employees without direct oversight, causing NCR conditions, which required rework, resulting in schedule delay. The contractor has implemented restrictions on performing work with certain tools and additional oversight of apprentice employees.</p>	Risk Recovery Action(s)	FC Date	%	Set clear expectations for quality of shop drawings.	Complete	100%	Work with construction contractor to expedite approval of shop drawings for fabrication.	Complete	100%	Provide additional oversight of apprentice employees.	Ongoing	75%
Risk Recovery Action(s)	FC Date	%														
Set clear expectations for quality of shop drawings.	Complete	100%														
Work with construction contractor to expedite approval of shop drawings for fabrication.	Complete	100%														
Provide additional oversight of apprentice employees.	Ongoing	75%														

Risk Title	Unmitigated Risk Impacts	Assessment		Comments												
		Month	Trend													
RL-0013/WBS-013																
WSD-W135-37: MASF Differing Conditions	<p>MASF mockup construction is impacted by a discovery that the actual configuration/as-found condition of MASF differs from assumed conditions.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Likely (75% to 90%) Worst Case Impacts: \$100K, 48 days</p>	●	↔	<p>Risk Event: Extensive walk downs, drawing reviews and interviews with MASF personnel were performed prior to and during the design effort for the MASF mockup to ensure that the design for the mockup structure could be constructed accurately to replicate WESF conditions. During construction, differing as-found conditions were discovered (e.g., lead-based paint, uneven floor surface affecting levelness of the mockup structure).</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Risk Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Incorporated lead abatement controls into a work package.</td> <td>Complete</td> <td>100%</td> </tr> <tr> <td>Perform engineering evaluation of floor levelness and incorporate shims into drawings as required.</td> <td>Complete</td> <td>100%</td> </tr> <tr> <td>Install shims as required.</td> <td>Complete</td> <td>100%</td> </tr> </tbody> </table> <p>Recovery Action Assessment: No significant changes in April. Lead paint was discovered on an existing MASF structure that interfaced with the new WESF mockup structure. The lead-based paint on the structure was abated prior to cutting the structure in order to make the proper tie-in to the WESF mockup. The MASF floor was discovered to be uneven, affecting the levelness of the WESF mockup. The WESF mockup structure must be level in order for the future capsule transfer equipment to operate properly. Extensive shimming of the WESF mockup structure was performed in order to construct the structure.</p>	Risk Recovery Action(s)	FC Date	%	Incorporated lead abatement controls into a work package.	Complete	100%	Perform engineering evaluation of floor levelness and incorporate shims into drawings as required.	Complete	100%	Install shims as required.	Complete	100%
Risk Recovery Action(s)	FC Date	%														
Incorporated lead abatement controls into a work package.	Complete	100%														
Perform engineering evaluation of floor levelness and incorporate shims into drawings as required.	Complete	100%														
Install shims as required.	Complete	100%														
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 (e.g., 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%) 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%; border-collapse: collapse;"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Implement aggressive corrective action/PM program.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in April. The project has commenced mitigating strategies (i.e., aggressive S&M 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 corrective action/PM program.	Ongoing	N/A						
Mitigation Action(s)	FC Date	%														
Implement aggressive corrective action/PM program.	Ongoing	N/A														
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)																
WSD-CSS-006: Fabrication of the Equipment from the Contractor	<p>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.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Medium (26% to 74%) Worst Case Impacts: \$5M, 64 days</p>	●	↔	<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" style="width: 100%; border-collapse: collapse;"> <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 April. 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														

Risk Title	Unmitigated Risk Impacts	Assessment		Comments												
		Month	Trend													
RL-0013/WBS-013																
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 April. 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 Solid Waste Operations Complex (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 April. 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 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: \$4.1M, 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>Draft statement of work (SOW) for WRAP roof replacement.</td> <td>5/12/20</td> <td>90</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in April. 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. A SOW for the roof replacement design will be drafted this year. The delay in the forecasted completion date of mitigation actions is due to the response to COVID-19. 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	Draft statement of work (SOW) for WRAP roof replacement.	5/12/20	90
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														
Draft statement of work (SOW) for WRAP roof replacement.	5/12/20	90														
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: Medium (26% to 74%) Worst Case Impacts: \$2M, 0 days	●	↔	<p>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.</p> <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in April. 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.</p>	Mitigation Action(s)	FC Date	%	None identified at this time.	N/A	N/A						
Mitigation Action(s)	FC Date	%														
None identified at this time.	N/A	N/A														

Risk Title	Unmitigated Risk Impacts	Assessment		Comments												
		Month	Trend													
RL-0013/WBS-013																
WSD-144: Changes to Ecology Strategy	Ecology issues a permit that significantly differs from planned scope, resulting in both cost and schedule impacts to the project. Risk Handling Strategy: Control Probability: Likely (75% to 90%) Worst Case Impacts: \$10M, 192 days	●	↔	<p>Risk Trigger Metric: Ecology issues a permit that does not align with CHPRC's plans. RL does not appeal the permit, causing CHPRC to incorporate all permit requirements.</p> <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 RL to discuss the impacts of Ecology decisions.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in April. 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.</p>	Mitigation Action(s)	FC Date	%	Continuous communication and routine meetings to address agency comments.	Ongoing	N/A	Periodic meetings with RL 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 RL to discuss the impacts of Ecology decisions.	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	●	↔	<p>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.</p> <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in April. This risk has been identified as a key project risk for FY2020. This risk has been accepted, as the project has taken great precautions 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.</p>	Mitigation Action(s)	FC Date	%	None identified at this time.	N/A	N/A						
Mitigation Action(s)	FC Date	%														
None identified at this time.	N/A	N/A														
WSD-W135-31: 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	●	↔	<p>Risk Trigger Metric: The canyon crane fails during use or cannot be returned to service after maintenance.</p> <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <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> <p>Mitigation Assessment: No significant changes in April. 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.</p>	Mitigation Action(s)	FC Date	%	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	%														
Perform preventative/corrective maintenance procedures on the crane to facilitate reliability.	08/31/20	0														
Procure critical spares.	9/30/21	0														
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	●	↔	<p>Risk Trigger Metric: During excavation activities within the established Waste Information Data System website, the project encounters unplanned contamination, debris, legacy waste (drums) or utilities.</p> <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Review of historical as-built drawings.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Site walk downs as needed.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Radiological surveying, as needed.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in April. This risk has been identified as a key project risk for FY2020. Detailed reviews of existing drawings, site walk downs and continuous site radiological surveys throughout excavation efforts are being executed as best practices, and included in the baseline; therefore, this risk is accepted with residual probability and consequences.</p>	Mitigation Action(s)	FC Date	%	Review of historical as-built drawings.	Complete	100	Site walk downs as needed.	Ongoing	N/A	Radiological surveying, as needed.	Ongoing	N/A
Mitigation Action(s)	FC Date	%														
Review of historical as-built drawings.	Complete	100														
Site walk downs as needed.	Ongoing	N/A														
Radiological surveying, as needed.	Ongoing	N/A														
Unassigned Risks (Pending ownership of identified risks/opportunities)																
No unassigned risks identified in April.																

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	21.4	18.3	17.7	(3.1)	-14.5%	0.6	3.3%

Numbers are rounded to the nearest \$0.1 million.

CM Schedule Performance (-\$3.1M/-14.5%)

The CM negative schedule variance was the result of the PSWO issued to CHPRC by RL on March 24, 2020. The PSWO covered non-portable work activities not associated with minimum safe operations that could not be performed in a safe and compliant manner consistent with the Center for Disease Control and Prevention COVID-19 guidelines and the “Stay Home, Stay Healthy” order issued by the governor of Washington State. Non-portable work activities are activities that cannot be performed in a remote manner (e.g., telework from home). As CSA fieldwork is not considered minimum safe operations, it was demobilized and placed in a safe configuration in late March, resulting in a negative schedule variance. Large box commercial TRUM repack also contributed to the negative schedule variance. Priority was placed on the PFP 1800TL shipments, which were accelerated to mitigate shipment risk and to maintain the offsite contractor waste processing throughput. This strategy accelerated the PFP waste but temporarily delayed the processing of large box legacy waste boxes.

The CM negative schedule variance is also partially due to IDF scope not being considered minimum safe operations. As it involves construction in the field, it was demobilized and placed in safe configuration.

CM Cost Performance (+\$0.6M/+3.3%)

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	1,587.9	1,580.0	1,495.5	(7.9)	-0.5%	84.5	5.3%	1,681.2	1,601.1	105.7	80.1

Numbers are rounded to the nearest \$0.1 million.

CTD Schedule Performance (-\$7.9M/-0.5%)

The CTD schedule variance is within threshold.

CTD Cost Performance (+\$84.5M/+5.3%)

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 (+\$80.1M/+4.8%)

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	202.7	200.6	2.1
Management of Cesium and Strontium Capsules (Line Item)	14.3	1.3	13.0
RL-0013 – Total	217.0	201.9	15.1

Numbers are rounded to the nearest \$0.1 million.

Funds/Variance Analysis

The current FY2020 projected funding level of \$217.0 million reflects the final FY2020 project management baseline annual update submitted to RL in September FY2019, with updates through fiscal month April. Line item funding reflects FY2019 carryover and FY2020 new funding targets. The spending forecast of \$201.9 million reflects a decrease of approximately \$300K from March, primarily due to scope that pushed 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 (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	9/30/2020		9/30/2020	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 Retrievably Stored Wasteretrieval	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
RL review WESF safety design strategy Revision 3	4/7/2020(A)	5/21/2020
RL Approve IDF final hazard categorization	6/2/2020	6/16/2020
CSA – RL: review/approve PDSA (first FY)	5/16/2019(A)	7/20/2020
RL review of Project W-135, WESF modifications, CD-2/CD-3 documentation	6/29/2020	11/3/2020

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

April 2020
CHPRC-2020-04, Rev. 1
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

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

PROJECT SUMMARY

In April, the Soil and Groundwater Remediation Project (S&GRP) team transitioned S&GW Project activities to minimum safe operations and maintained them in that configuration in compliance with the U.S. Department of Energy (DOE), Richland Operations Office (RL) partial stop work order (PSWO) issued as a part of the Hanford Site response to the novel coronavirus (COVID-19). Progress continued in April on the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* (CERCLA) remedial process documentation for the River Corridor and Central Plateau. The project team continued to operate groundwater pump and treat (P&T) facilities in a safe and compliant manner. 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	30.5	213.2	2.1	12.2						
HX P&T	18.0	149.6	2.6	21.0						
KR-4 P&T	12.4	87.1	0.2	0.8						
KW P&T	12.7	89.8	0.5	8.2						
KX P&T	33.7	262.5	2.2	14.7						
200 West P&T	71.0	685.8	0.5	3.5	155.0	1,159.0	5.90x10 ¹⁰	9.30 x10 ¹¹	0.9	50.1
Combined	178.2	1,488.0	8.1	60.42	155.0	1,159.0	5.90x10 ¹⁰	9.30 x10 ¹¹	0.9	50.1
FY2020 Gold Metric	--	2,200.0	--	80.0	--	1,800.0	--	N/A	--	90.0

Current month (CM) Fiscal year (FY) to date (TD)

Well Drilling Completion by Area*	FY2020 Planned	Current Calendar Month	FY2020 Cumulative
100-KR-4	3	0	3
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	3
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	3

*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	75%
20-SGRP-OBJ-2-P1	The number and types of spills at the 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	30%
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	67%
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	54%

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	6	N/A
Near-Misses	0	0	N/A

KEY ACCOMPLISHMENTS

River Corridor

100-HR-3 Operable Unit (OU)

- Issued the 100-D/H Continuing Hexavalent Chromium Source Evaluation report to RL and the Washington State Department of Ecology (Ecology) on April 7, 2020. This report identifies and evaluates known and suspected secondary sources of hexavalent chromium (Cr[VI]) contamination remaining in the soils at the 100D Area, 100H Area and the Horn that are affecting groundwater conditions. It further discusses the need for additional data and analysis necessary to support recommendations for remedial action, including an evaluation of soil flushing as a potential remedy.

Central Plateau**200-BP-5/PO-1 OUs**

- Transmitted Revision 0 of DOE/RL-2018-58, *Proposed Plan for Interim Action Remediation of the 200-BP-5 and 200-PO-1 Operable Units*, to RL on April 8, 2020.

200-CP-1 OU

- Conducted the external storyboarding session with Ecology and the U.S. Environmental Protection Agency (EPA) on Wednesday, April 8, 2020, for preparation of the remedial investigation/feasibility study (RI/FS) work plan. The video conference call was well attended by the agencies and positive feedback was received on a path forward. A monthly conference call will be established with the agencies to maintain communication during document preparation.

Central Plateau RCRA Closure Plans

- Finalized changes to the 216-B-63 closure plan with agreement between Ecology and RL on March 31, 2020.

200-ZP-1 OU

- Transmitted Revision 3 DOE/RL-2009-115, *Performance Monitoring Plan for the 200-ZP-1 Groundwater Operable Unit Remedial Action*, to RL on April 16, 2020.

Groundwater Sciences

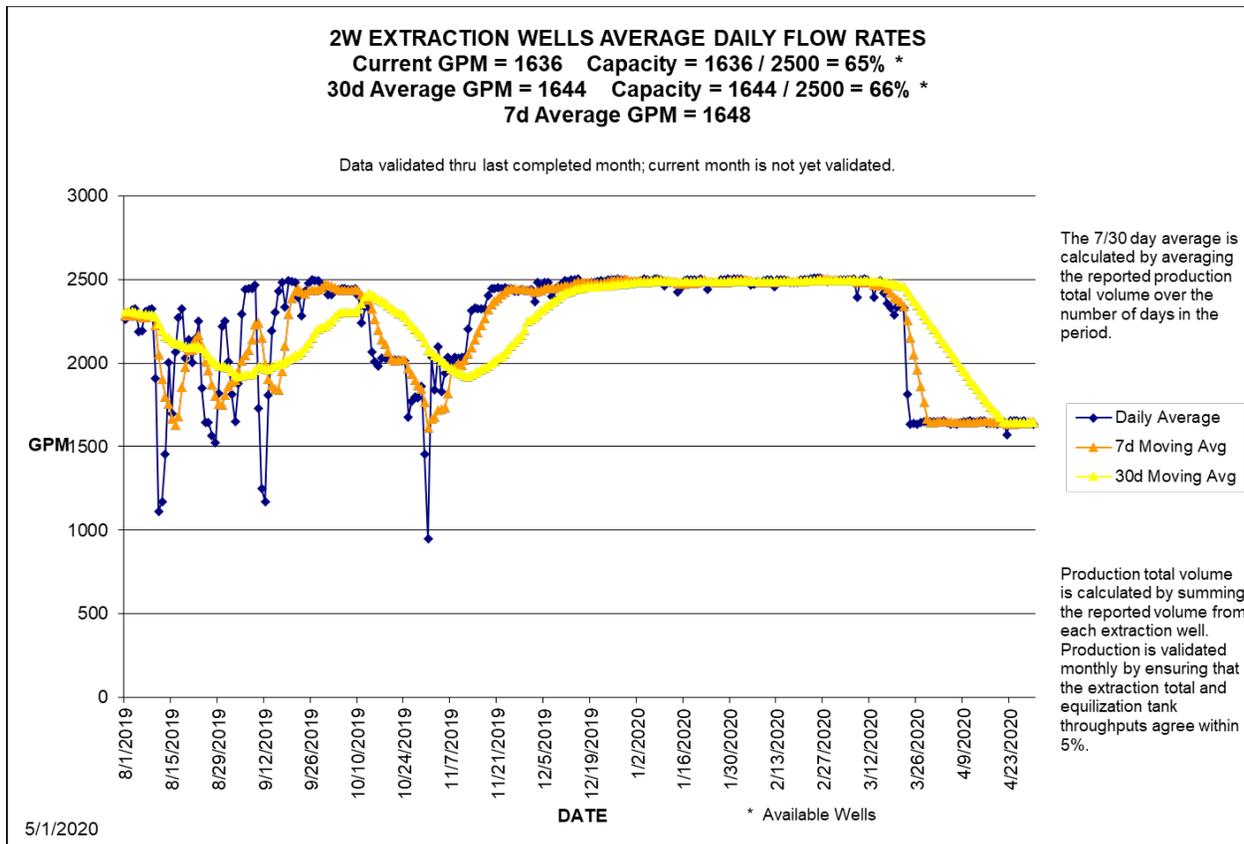
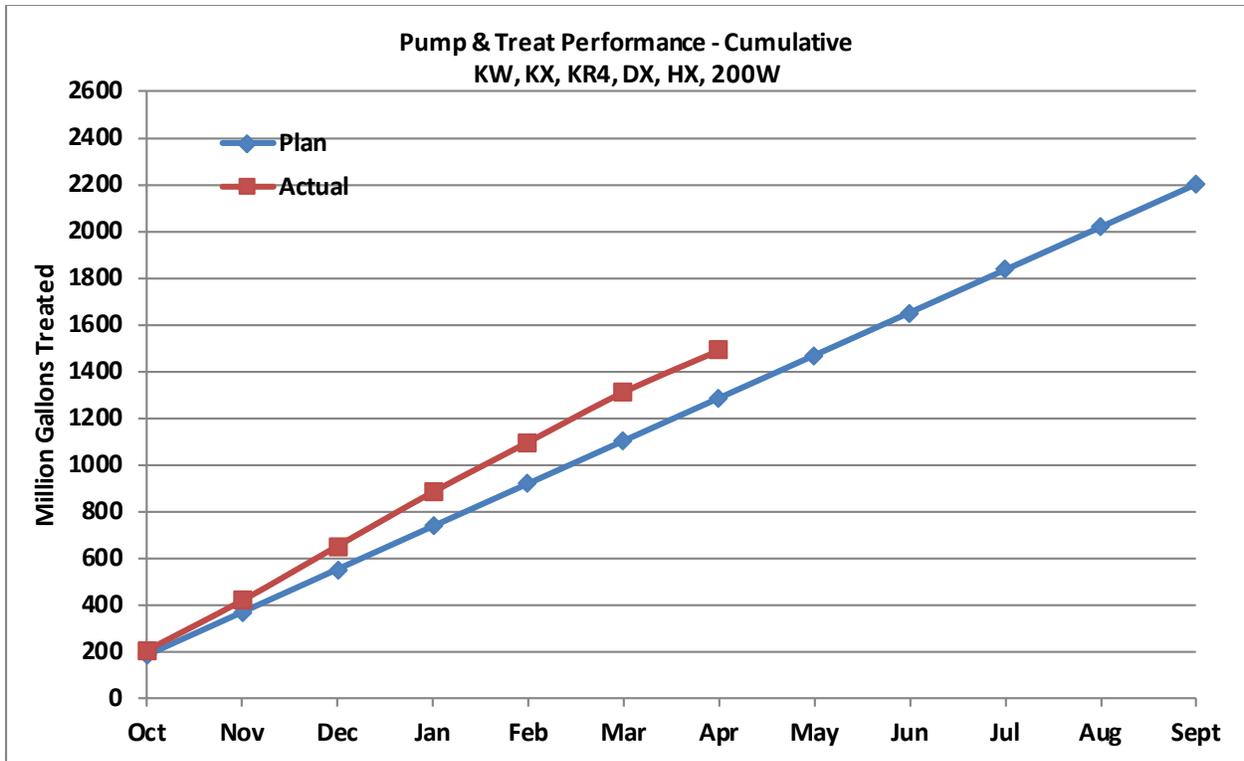
- Transmitted Revision 2 DOE/RL-2015-5, *Hanford Atomic Energy Act Sitewide Groundwater Monitoring Plan*, to RL on April 15, 2020.

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

- Operated the 200 West P&T at an average of 1,650 gallons per minute (gpm).

100 Area P&Ts

- Operated the DX P&T at 705 gpm, below the facility capacity of 775 gpm.
- Operated the KR-4 P&T at 285 gpm, below the facility capacity of 330 gpm.
- Operated the KW P&T at 294 gpm, below the facility capacity of 330 gpm.
- Operated the KX P&T at 782 gpm, below the facility capacity of 900 gpm.
- Operated the HX P&T at 420 gpm, below the facility capacity of 900 gpm.



MAJOR ISSUES

Issue

Progress to complete the 100-BC Area Record of Decision (ROD) is being hindered by concerns from the Yakama Nation (YN) and indications they may issue a notice of intent to sue if the ROD is issued with the current plan for groundwater cleanup. Monitored natural attenuation is the preferred remedy for groundwater and the YN does not agree with this remedy. YN also asserts that the 10 µg/L surface water cleanup level is applicable throughout the aquifer per Washington State code. YN has also expressed concerns about uncertainties in modeling and risk assessment and the extent of characterization for the lower aquifer. This issue puts achievement of the RL FY2020 Key Performance Goal, *Obtain 100-BC-Area Record of Decision*, at risk.

Corrective Action

No corrective action has been identified.

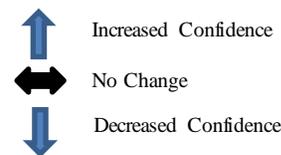
Status

CH2M HILL Plateau Remediation Company (CHPRC) legal and Environmental Protection & Strategic Planning issued a white paper on March 30, 2020, outlining the history and regulation that supports RL's position that the Cr(VI) groundwater cleanup level indicated in the 100-BC-5 Proposed Plan applies to most of the aquifer, and the surface water cleanup level only applies at the groundwater river interface. The white paper will be used to brief senior RL management and facilitate discussions with the EPA and Ecology as the agencies work together with their respective technical and legal organizations to address these concerns.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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



Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
RL-0030/WBS-030										
Explanation of major changes to the project monthly stoplight chart: The following updates were made to the monthly stoplight chart: <ol style="list-style-type: none"> 1. Risk <i>SGW-ZP1-03: Air Stripper Phase 1 Installation Design Maturity</i> was removed from the risk stoplight report, as no viable recovery actions were identified and the project has accepted this risk. This risk will be closed out in the FY2020 risk database. 2. Risk <i>SGW-169-ZP1: ZP1 – Increase in Sampling & Analysis Requirements</i> was removed from the risk stoplight report, as no viable recovery actions were identified, the project has accepted the risk and the estimate to complete has been adjusted to include the additional sampling requirements. 3. Risk <i>SGW-170: Lack of Qualified Drilling Contractors</i> was removed from the stoplight chart, as this risk is considered a low threat for the remainder of FY2020. 										
Realized Risks (Risks that are currently impacting project cost/schedule)										
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	●	↔	<p>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 the 200-IS-1 OU. CHPRC was coordinating with both RL and 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.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr style="background-color: #e0e0e0;"> <th style="width: 80%;">Recovery Action(s)</th> <th style="width: 10%;">FC Date</th> <th style="width: 10%;">%</th> </tr> </thead> <tbody> <tr> <td>CHPRC includes resources to support timely comment resolution, weekly meetings and, if necessary, development of white papers to provide further clarification to stakeholders. CHPRC considers these handling actions standard business practices to support performance objectives.</td> <td style="text-align: center;">Ongoing</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table> <p>Recovery Assessment: Ecology concurrence on language for the 216-B-63 Closure Plan was received on April 20, 2020. Similar comments on other closure plans will be addressed in the same approach as decided in this closure plan. Once resolution on the 216-B-63, 216-S-10 and 216-A-29 Closure Plans is achieved, CHPRC will pursue certification.</p>	Recovery Action(s)	FC Date	%	CHPRC includes resources to support timely comment resolution, weekly meetings and, if necessary, development of white papers to provide further clarification to stakeholders. CHPRC considers these handling actions standard business practices to support performance objectives.	Ongoing	N/A
Recovery Action(s)	FC Date	%								
CHPRC includes resources to support timely comment resolution, weekly meetings and, if necessary, development of white papers to provide further clarification to stakeholders. CHPRC considers these handling actions standard business practices to support performance objectives.	Ongoing	N/A								
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 Ecology’s “confirm comment capture” task. Additional comments were received via the 216-B-63 Closure Plan review.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr style="background-color: #e0e0e0;"> <th style="width: 80%;">Recovery Action(s)</th> <th style="width: 10%;">FC Date</th> <th style="width: 10%;">%</th> </tr> </thead> <tbody> <tr> <td>CHPRC includes resources to support timely comment resolution, weekly meetings and, if necessary, development of white papers to provide further clarification to stakeholders. CHPRC considers these handling actions standard business practices to support performance objectives.</td> <td style="text-align: center;">Ongoing</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table> <p>Recovery Assessment: No significant changes in April. CHPRC has initiated comment resolution based on the approach agreed to by RL and Ecology for completing the 216-B-63 Closure Plan comments. If additional Ecology comments are not identified, comment resolution is expected to complete by mid-May.</p>	Recovery Action(s)	FC Date	%	CHPRC includes resources to support timely comment resolution, weekly meetings and, if necessary, development of white papers to provide further clarification to stakeholders. CHPRC considers these handling actions standard business practices to support performance objectives.	Ongoing	N/A
Recovery Action(s)	FC Date	%								
CHPRC includes resources to support timely comment resolution, weekly meetings and, if necessary, development of white papers to provide further clarification to stakeholders. CHPRC considers these handling actions standard business practices to support performance objectives.	Ongoing	N/A								

Risk Title	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
RL-0030/WBS-030													
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 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>CHPRC includes resources to support timely comment resolution, weekly meetings and, if necessary, development of white papers to provide further clarification to stakeholders. CHPRC considers these handling actions standard business practices to support performance objectives.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Recovery Assessment: No significant changes in April. The resolution of comments for 216-B-63, and the description for conveyances in 216-B-3, will likely cause the need for revision of the currently frozen 216-A-29 Closure Plan. These revisions are needed to provide consistency between 216-B-63, 216-B-3, 216-A-29 and 216-S-10 Closure Plans, as all four closure plans will be certified in one package. Text revisions for the 216-A-29 ditch are expected to complete by mid-May.</p>	Recovery Action(s)	FC Date	%	CHPRC includes resources to support timely comment resolution, weekly meetings and, if necessary, development of white papers to provide further clarification to stakeholders. CHPRC considers these handling actions standard business practices to support performance objectives.	Ongoing	N/A			
Recovery Action(s)	FC Date	%											
CHPRC includes resources to support timely comment resolution, weekly meetings and, if necessary, development of white papers to provide further clarification to stakeholders. CHPRC considers these handling actions standard business practices to support performance objectives.	Ongoing	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>Develop 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>Recovery Assessment: No significant changes in April. Continue collaborating with EPA to help reduce the number of comments during their review.</p>	Recovery Action(s)	FC Date	%	Develop 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
Recovery Action(s)	FC Date	%											
Develop 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											
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)													
No Critical Risks identified in April.													
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)													
No High Risks identified in April.													
FY2020 Key Risks													
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 CHPRC and other Hanford Site contractor’s projects. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$350K, 25 days			<p>Risk Event: A primary node of the Gaia Environmental modeling super computer server fails. This failure results in delays to Composite Analysis and Cumulative Impact Evaluation work activities and requires the purchase and validation of new components.</p> <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Implement the use of a virtual server for modelling activities.</td> <td>TBD</td> <td>0</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in April. Mitigation action being pursued is the use of a virtual server to prevent the impact of future system component failures. Once a viable mitigation action is agreed upon between stakeholders, this risk will be removed from the stoplight chart.</p>	Mitigation Action(s)	FC Date	%	Implement the use of a virtual server for modelling activities.	TBD	0			
Mitigation Action(s)	FC Date	%											
Implement the use of a virtual server for modelling activities.	TBD	0											

Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
RL-0030/WBS-030										
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: No significant changes in April. 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-171: Increase in Routine Sampling & Analysis Requirements	Sampling and characterization requirements increase above planning assumptions due to changes from data quality objective (DQO)/sampling and analysis plan (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 April. 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 April.										

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	14.1	8.4	10.0	(5.7)	-40.7%	(1.7)	-19.8%

Numbers are rounded to the nearest \$0.1 million.

CM Schedule Performance (-\$5.7M/-40.7%)

The CM negative schedule variance was the result of the PSWO issued to CHPRC by RL on March 24, 2020. The PSWO covered non-portable work activities not associated with minimum safe operations that could not be performed in a safe and compliant manner consistent with the Centers for Disease Control and Prevention COVID-19 guidelines and the “Stay Home, Stay Healthy” order issued by the governor of Washington State. Non-portable work activities are activities that cannot be performed in a remote manner (e.g., telework from home). As drilling, sampling, and other S&GRP fieldwork is not considered minimum safe operations, those projects were demobilized and placed in a safe configuration in late March, resulting in a negative schedule variance.

The negative schedule variance generated by the PSWO was partially offset by the receipt of a long lead procurement that was planned to be received in FY2019; the pump-setting rig was received in April, generating a positive schedule variance.

CM Cost Performance (-\$1.7M/-19.8%)

The CM negative cost variance was also the result of the PSWO. Drilling, sampling, and other SGRP fieldwork is not considered minimum safe operations, and therefore was demobilized. Although CHPRC incurred the downtime costs of the dedicated staff and subcontract resources, no progress was made on field activities. As the method of performance for fieldwork is based on physical progress in the field, and no progress was achieved, a negative cost variance was experienced.

The negative cost variance described above was offset in part by a positive cost variance in the Usage Based Services account. Fuel consumption for fleet vehicles and training courses at the Volpentest HAMMER Federal Training Center in north Richland were significantly reduced due the PSWO. As the method of performance for these level of effort accounts is based on the passage of time, progress was earned for the activities although the service volume was drastically reduced, causing a positive cost variance.

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	1,700.6	1,690.1	1,640.3	(10.6)	-0.6%	49.7	2.9%	1,755.9	1,706.9	66.5	49.1

Numbers are rounded to the nearest \$0.1 million.

CTD Schedule Performance (-\$10.6M/-0.6%)

The CTD negative schedule variance is within reporting thresholds.

CTD Cost Performance (+\$49.7M/+2.9%)

The CTD positive cost variance is within reporting thresholds.

Variance at Completion (+\$49.1M/+2.8%)

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	126.0	118.5	7.4
Numbers are rounded to the nearest \$0.1 million.			

Funds/Variance Analysis

Projected FY2020 funding in April remained at \$126 million. The spending forecast of \$118.5 million reflects an overall increase of \$1.4 million, which includes a reduction of \$3.6 million for scope moving to FY2021, offset by an increase of \$5 million for fee moved from RL-0040 to allow funding to support crews moving from the Plutonium Finishing Plant (PFP) to the West Area Remediation Project.

Critical Path Analysis

Critical path analysis will be provided upon request.

MILESTONE STATUS

The following table is a one-year look ahead of PBS RL-0030, *Hanford Federal Facility Agreement and Consent Order*-enforceable milestones, 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	6/1/2020		6/1/2020	On schedule
M-024-71-T01	Conclude Discussions of Well Commitments Initiated under M-024-58	8/1/2020		7/30/2020	On schedule
M-085-80	Submit Remedial Investigation/Feasibility Study Work Plan for 200-CP-1 to Ecology	9/30/2020		9/15/2020	On Schedule

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 and Ecology review of low-level burial ground waste management area (WMA)-2 engineering evaluation report regulator review draft	4/27/2020	5/15/2020
RL review of draft annual groundwater report	4/30/2020	5/29/2020
RL transmit central plateau tracer study-sample analysis plan draft Revision 0 to regulators for review	5/1/2020	5/1/2020
RL transmit to Ecology and EPA Draft A DQO/SAP for defining future extraction well location (DOE/RL-2019-42)	5/1/2020	5/8/2020
RL review of biomobilization/biointrusion root characterization decisional study plan	5/4/2020	6/2/2020
RL review of KW soil flushing treatability test report decisional draft	5/8/2020	6/6/2020
RL review 200-ZP-1 operations & maintenance (O&M) plan - remove bio treatment, Decisional Draft Revision 6 (DOE/RL-2009-124)	5/12/2020	6/25/2020
RL review of the 200 Area P&T report	5/21/2020	6/19/2020
RL review of 100-D/H waste site closeout Package B	5/26/2020	6/8/2020
RL review of the 100 Area P&T annual report	5/29/2020	6/27/2020
RL transmit 100-HR-3 remedial design (RD)/removal action work plan (RAWP) Draft Revision 0 to regulators for review	6/2/2020	6/2/2020
RL transmits 100-KR-4 FS Draft B for EPA review	6/2/2020	6/16/2020
RL transmit 200-BP-5 WMA C drilling SAP, Draft A to regulators for review	6/3/2020	6/16/2020
RL review of 100-KR-4 WMA, Revision 7	6/5/2020	7/4/2020
RL and Ecology Review of the draft west groundwater monitoring plan in support of <i>Resource Conservation and Recovery Act of 1976</i> (RCRA) Revision 9 permit modification	6/8/2020	6/19/2020
RL review of 100-KE soil flushing explanation of significant difference	6/9/2020	7/8/2020
RL transmit RD/RAWP Draft Revision I to the regulators for check review	6/19/2020	6/25/2020

Description	CHPRC Delivery Date	Expected RL Due Date
RL transmit 200-UP-1 performance monitoring plan Revision 1 to EPA for approval	6/19/2020	6/25/2020
RL and ECY concurrent review of Draft 216-A-37-1 Crib - groundwater monitoring plan	6/13/2020	6/27/2020
RL review technical impracticability applicable or relevant and appropriate requirement waiver request decisional draft	6/17/2020	7/16/2020
RL certify and submit 216-S-10 pond & ditch addendum to Ecology	6/21/2020	7/4/2020
RL transmit 200-ZP-1 O&M plan, Draft A to EPA for review	6/26/2020	7/10/2020
RL review of 100-D/H waste site closeout Package C	7/16/2020	7/29/2020
RL transmit 100-KE soil flushing explanation of significant differences to EPA for review	7/24/2020	8/7/2020

*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

April 2020
CHPRC-2020-04, Rev. 1
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

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

PROJECT SUMMARY

In April, activities were transitioned to minimum safe operations and maintained in that configuration in compliance with the U.S. Department of Energy (DOE), Richland Operations Office (RL) partial stop work order (PSWO) issued as a part of the Hanford Site response to the novel coronavirus (COVID-19). In response to the PSWO, personnel developed the Central Plateau Risk Management (CPRM) restart path and complexities, social distancing and staffing mobilization plans. On the Central Plateau, crews completed the monthly As Low As Reasonably Achievable Current Technology (ALARACT) surveys at the canyon facilities and operated the Central Radiological Count Facility. Finally, personnel began packing and moving into MO-294 and MO-6114 that is required to implement social distancing.

EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
20-EMS-CPRM-OBJ1-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	30%

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	13	N/A
Near Misses	0	0	N/A

KEY ACCOMPLISHMENTS

CPRM Surveillance and Maintenance

- Developed the social distancing and staffing mobilization plans for the CPRM organization.
- Completed the monthly ALARACT surveys at the canyon facilities.

REDOX Canyon Risk Mitigation

- Awarded the subcontract change order for excavation of the wind tunnel at Reduction-Oxidation (REDOX).
- Awarded the subcontract for the 291S power distribution at REDOX.
- Completed the engineering change request for the modification of the second legacy exhaust fan in support of the REDOX Air Monitoring Plan.

224B Facility Demolition Preparation

- Completed review of the ALARA management worksheet for mechanical isolation.

Plutonium Uranium Extraction Plant (PUREX) North

- Developed the energized electrical work permits for entry to isolate 214A and 211A in support of the cold and dark process.

Aging Structures

- Awarded subcontract to investigate, fabricate, and grout 216-Z-2 and 216-Z-9 cribs and the 241-Z-361 tank.
- Awarded the animation model development subcontract for 216-Z-2 and 216-Z-9 cribs and 241-Z-361 tank.
- Procured climate-controlled unit (CO11079) for the stabilization efforts of 216-Z-2 and 216-Z-9 cribs and 241-Z-361 tank.

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 (SOP) 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, CPRM and REDOX 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 consisted 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 addressed 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 were 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 SOP outside the facility. Procurement and activities are complete to improve the SOP. 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 trailer connections were completed and the doublewide door in the SOP trailer was installed and will be operating by July. 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. The delay in the forecasted completion date is due to the response to the COVID-19.

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

Electrical investigations are on hold until the site wide PSWO is lifted.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

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

- Increased Confidence
- No Change
- Decreased Confidence

Risk Title	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
RL-0040/WBS-040													
Explanation of major changes to the project monthly spotlight chart: There are no major changes to the spotlight chart in April.													
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	●		<p>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.</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>Complete electrical isolations.</td> <td>July 2020</td> <td>10</td> </tr> </tbody> </table> <p>Recovery Action Assessment: No major changes in April. Electrical isolations are ongoing to complete cold and dark of the 224B Facility. A lockout/tagout (LOTO) was placed on the 224B Facility and had an electrical investigation completed. It was determined the facility will operate on a LOTO status until the facility is electrically cold and dark. Based on the exposed electrical discovery at the 224B Facility, CPRM has performed an extended condition verification across other potential aging facilities that may have the same potential risk factor.</p>	Risk Recovery Action(s)	FC Date	%	Complete electrical isolations.	July 2020	10			
Risk Recovery Action(s)	FC Date	%											
Complete electrical isolations.	July 2020	10											
224B-008: Impacted by OHC (Other Hanford Contractors) or Other CHPRC Projects	Delays by OHC or other CH2M Hill Plateau Remediation Company (CHPRC) projects impact 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	●		<p>Risk Event: Mission Support Alliance, LLC (MSA) Electrical Utilities (EU) impacted the 224B Facility electrical deactivation. The need for unforeseen electrical isolations due to an asbestos event at 2101M removed the EU planner from completing the work package to support the 224B Facility.</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>Mitigate OHC delays.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Recovery Action Assessment: No major changes in April. Asbestos issues continue to impact the MSA EU organization.</p>	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: \$45K, 32 days	●		<p>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.</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>Procure a contractor to patch the annex roof.</td> <td>September 2020</td> <td>10</td> </tr> <tr> <td>Develop plans to remove annexes.</td> <td>September 2020</td> <td>5</td> </tr> </tbody> </table> <p>Recovery Action Assessment: No major changes in April. The new leak discovered in August continues to be evaluated to identify a path forward. Maintenance crews are prepared to procure 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. The delay in the forecasted completion date of recovery actions is due to the response to COVID-19.</p>	Risk Recovery Action(s)	FC Date	%	Procure a contractor to patch the annex roof.	September 2020	10	Develop plans to remove annexes.	September 2020	5
Risk Recovery Action(s)	FC Date	%											
Procure a contractor to patch the annex roof.	September 2020	10											
Develop plans to remove annexes.	September 2020	5											

Risk Title	Unmitigated Risk Impacts	Assessment		Comments											
		Month	Trend												
RL-0040/WBS-040															
<p>REDOX-09: Concerned Citizen</p> <p>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.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Likely (75% to 90%) Worst Case Impacts: \$0, 16 days</p>	 	 	<p>Risk Event: A concerned citizen called a stop work, which caused delays and unplanned work necessary to address the required action.</p> <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 the SOP trailer.</td> <td>July 2020</td> <td>90</td> </tr> <tr> <td>Create and implement a phased approach to address identified concerns.</td> <td>October 2020</td> <td>50</td> </tr> <tr> <td>Upgrade temporary power/lighting and localized ventilation.</td> <td>October 2020</td> <td>10</td> </tr> </tbody> </table> <p>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. The SOP trailer was delivered in January, and final electrical connections are pending. The delay in the forecasted completion date of recovery actions is due to the response to COVID-19.</p>	Risk Recovery Action(s)	FC Date	%	Procure and install the SOP trailer.	July 2020	90	Create and implement a phased approach to address identified concerns.	October 2020	50	Upgrade temporary power/lighting and localized ventilation.	October 2020	10
Risk Recovery Action(s)			FC Date	%											
Procure and install the SOP trailer.	July 2020	90													
Create and implement a phased approach to address identified concerns.	October 2020	50													
Upgrade temporary power/lighting and localized ventilation.	October 2020	10													
<p>REDOX-16: Facility Integrity</p> <p>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.</p> <p>Risk Handling Strategy: Transfer</p> <p>Probability: Medium (26% to 74%) Worst Case Impacts: \$0, 0 days</p>	<p>Risk Event: A leaking roof results in unsafe working conditions for personnel.</p> <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>December 2020</td> <td>40</td> </tr> <tr> <td>Repair minor roof defects.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Recovery Action Assessment: No major changes in April. 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. The delay in the forecasted completion date of recovery actions is due to the response to COVID-19.</p>	Risk Recovery Action(s)	FC Date	%	Perform cold and dark activities to shut off building power.	December 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.	December 2020	40													
Repair minor roof defects.	Ongoing	N/A													
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)															
<p>REDOX-05: Collapse of Sand Filter</p> <p>Due to the close proximity of equipment in operation (e.g., cranes, forklifts used for waste loadout, 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.</p> <p>Risk Handling Strategy: Control</p> <p>Probability: Very low (<10%) Worst Case Impacts: \$260K, 48 days</p>	 	 	<p>Risk Triggers: Due to the close proximity of equipment in operation (e.g., 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.</p> <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>October 2020</td> <td>50</td> </tr> <tr> <td>Implement a communication plan between OHCs and other CHPRC projects.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No major changes in April. 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 October 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 October 2020. The delay in the forecasted completion date of recovery actions is due to the response to COVID-19.</p>	Mitigation Action(s)	FC Date	%	Establish sand filter access boundary.	October 2020	50	Implement a communication plan between OHCs and other CHPRC projects.	Ongoing	N/A			
Mitigation Action(s)			FC Date	%											
Establish sand filter access boundary.	October 2020	50													
Implement a 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 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>Mitigation Assessment: No significant changes in April. CHPRC and its subcontractor have incorporated all DOE and regulatory comments in review of the Time Critical Removal Action, Action Memorandum... CHPRC continues to actively meeting with the RL federal project director to coordinate document review, revision and comment resolution. The TRCR AM is in its final draft, all comment and client comments are nearing resolution, and the document approval is on schedule. In the event that regulator concurrence or final approval of the TCRA AM is delayed, RL may use its emergency authority under the Atomic Energy Act.</p>	Mitigation Action(s)	FC Date	%	Develop 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
Mitigation Action(s)	FC Date	%											
Develop 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											
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>8/1/2020</td> <td>85</td> </tr> </tbody> </table> <p>Mitigation Assessment: No major changes in April. This risk was identified as a key project risk for FY2020. A subcontract to perform structural analysis of 231-Z was awarded in late April. The contract work is expected to begin in June/July 2020. 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.	8/1/2020	85			
Mitigation Action(s)	FC Date	%											
Perform lifecycle evaluations of critical structures, systems, and components.	8/1/2020	85											
REDOX-VS-001: Changes to Stack & Stack Monitoring Requirements Affect the Project Schedule	<p>Additional stack and 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 (AMP), 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 AMP with regulators.</td> <td>September 2020</td> <td>0</td> </tr> </tbody> </table> <p>Mitigation Assessment: No major changes in April. CHPRC continues to meet with representatives of RL, the U.S. Environmental Protection Agency (EPA) and the Washington State Department of Health (DOH) to discuss the ventilation improvements proposed for REDOX to gain endorsement on the proposed changes to the system and stack monitoring. This effort culminated on April 2, 2020, in a presentation where RL, EPA and DOH concurred with CHPRC, submitting the AMP revision to turn on the second REDOX fan and increase airflow.</p>	Mitigation Action(s)	FC Date	%	Negotiate changes to the AMP with regulators.	September 2020	0			
Mitigation Action(s)	FC Date	%											
Negotiate changes to the AMP with regulators.	September 2020	0											
Unassigned Risks (Pending ownership of identified risks/opportunities)													
No unassigned risks identified in April.													

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	6.6	3.6	6.7	(3.1)	-46.3%	(3.2)	-88.7%

Numbers are rounded to the nearest \$0.1 million.

CM Schedule Performance: (-\$3.1M/-46.3%)

The CM unfavorable schedule variance was the result of the PSWO issued to CHPRC by RL on March 24, 2020. The PSWO covered non-portable work activities not associated with continuation of minimum safe operations that could not be performed in a safe and compliant manner consistent with the Centers for Disease Control and Prevention (CDC) COVID-19 guidelines and the “Stay Home, Stay Healthy” order issued by the governor of Washington State. Non-portable work activities is work that cannot be performed in a remote manner (e.g., telework from home). Labor resources were planned at B Plant, REDOX, PUREX, and the Plutonium Finishing Plant (PFP) south waste site were associated with minimum safe operations. As the planned work involves fieldwork, it was demobilized and placed in a safe configuration. Fieldwork activities are expected to restart once the PSWO has been lifted and CPRM is authorized to resume work.

The cost for the standby of subcontractor equipment remaining on site during this period was charged to this account. As the method of earning performance for this account is based on physical progress in the field, no performance was taken, causing the negative schedule variance.

Additionally, the CM variance is also attributed to resequencing activities associated with stabilization of 216-Z-2, 241-Z-361, and 216-Z-9 to improve the subcontracting approach. The baseline assumed installation of a platform for the conveyance system and excavation of risers using a guzzler tool were necessary. The project received the final engineering design, which determined the stabilization efforts for 216-Z-2 no longer required the platform or guzzler tool for excavation of the risers.

Furthermore, the baseline planned for separate subcontracts to demonstrate the grout mix buoyancy proof of design in addition to demonstrating the grout flowability proof of design for the second mix and fabricating the conveyance and ventilation system for both 216-Z-2 and 241-Z-361. However, from a cost and schedule savings, risk reduction and efficiency standpoint, the project evaluated and consolidated these activities into a single master contract for stabilization.

CM Cost Performance: (-\$3.2M/-88.7%)

The CM unfavorable cost variance was the result of the PSWO issued to CHPRC by RL on March 24, 2020. The PSWO covered non-portable work activities not associated with continuation of minimum safe operations that could not be performed in a safe and compliant manner consistent with the Centers for Disease Control and Prevention COVID-19 guidelines and the “Stay Home, Stay Healthy” order issued by the governor of Washington State. Non-portable work activities is work that cannot be performed in a remote manner (e.g., telework from home). CHPRC and subcontractor labor assigned to work that could

not be performed in a remote manner was charged to the control account 040.97.01.04 to collect and segregate unproductive time caused by the PSWO. The cost for the standby of subcontractor equipment remaining on site during this period was charged to this account. As the method of earning performance for this account is based on physical progress in the field, no performance was taken, causing the negative cost variance.

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	599.3	588.3	576.9	(11.1)	-1.8%	11.3	1.9%	642.0	634.9	58.0	7.1

Numbers are rounded to the nearest \$0.1 million.

CTD Schedule Performance: (-\$11.1M/-1.8%)

The CTD schedule variance is within reporting thresholds.

CTD Cost Performance: (+\$11.3M/+1.9%)

The CTD cost variance is within reporting thresholds.

Variance at Completion (+\$7.1M/+1.1%)

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		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	93.3	90.2	3.0

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 \$90.2 million includes action anticipated to achieve funding targets. The spending forecast of \$90.2 million reflects an overall decrease of \$0.6 million that includes an increase of \$4.4 million, primarily for crews moving from PFP, offset by a decrease of \$5 million for fee moved to RL-0030 to support the increase in the West Area Remediation Project.

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	9/30/2020		9/30/2020	Tri-Party Agreement change control form (CCF) M-16-20-02 changed due date to September 30, 2020.
M-037-10	Complete Closure for 6 Specified TSD Units	NA		NA	Tri-Party Agreement CCF M-37-19-01 deleted this milestone.
M-085-100	Submit Removal Action Work Plan for 224T to EPA	9/30/2020		5/7/2020	On schedule.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

DOE ACTIONS/DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL review Z cribs TCRA, AM	01/31/2020(A)	03/16/2020(A)
Regulator review tier 2 PUREX removal action work plan (RAWP) (2016-47)	11/18/2019(A)	04/30/2020
RL review PUREX action memorandum (AM) (2016-53)	12/22/2019(A)	04/30/2020
RL and Ecology review PUREX North closure plan (2015-72)	07/18/2019(A)	05/7/2020
Regulator review tier 2 PUREX sampling and analysis plan (SAP) (2016-46)	02/07/2020(A)	05/11/2020
Regulator review Z cribs TCRA, AM	03/17/2020(A)	05/14/2020
RL review decisional draft 224T RAWP (2019-36)	02/14/2020(A)	05/19/2020
Regulator approval and issuance B Plant engineering evaluation/cost analysis (2016-14)	10/02/2019(A)	05/20/2020
RL review Decisional Draft 224T SAP (2019-37)	11/19/2019(A)	05/21/2020
Regulator review PUREX AM (2016-53)	04/30/2020	08/13/2020

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

April 2020
CHPRC-2020-04, Rev. 1
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

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

M. A. Wright
Vice President for
Project Technical Services

PROJECT SUMMARY

K Basin Operations (KBO)

The project transitioned project activities to minimum safe operations and maintained them in that configuration in compliance with the U.S. Department of Energy (DOE), Richland Operations Office (RL) partial stop work order (PSWO) issued as a part of the Hanford Site response to the novel coronavirus (COVID-19). The Hazardous Category 2 105 KW Facility was maintained in a minimum safe and compliant condition where portable project work continued to be performed. Key Garnet Filter Media Removal (GFMR) documentation approved during April included the Fire Marshal Permit, the *Garnet Filter Media Retrieval System Operational Acceptance Test Plan*, and the nuclear chemical operator (NCO) qualification document for the sampling qualification.

The Soil Remediation team was onsite to apply the monthly fixative application to the disturbed soil at the 100K Area waste sites. The team also continued coordinating the deactivation and demolition activities for remediation around the 105KW facility.

River Risk Management Project (RRMP)

The project transitioned project activities to minimum safe operations and maintained them in that configuration in compliance with the DOE RL PSWO issued as a part of the Hanford Site response to COVID-19. The 324 Facility was maintained in a minimum safe and compliant operations mode, and portable work continued using temporary alternate work locations as appropriate. Planning was performed for the resumption of normal operations, including the implementation of social distancing. Engineering continued to support engineered equipment procurements, revising the current Operations Plan, Project Execution Plan, and completing the structural design review report. Equipment procurement continued for the cell dams, universal cutting tool, waste boxes, modified airlock rail system and B Cell 10-ton crane.

EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
20-EMS-KBO-OBJ1-P1	Evaluation of upcoming work activities at the 100K Area, which involves water discharge to the ground at the 100K Area.	Evaluate the upcoming work by the Hanford Fire Department to ensure decontamination and decommissioning (D&D) and soil remediation activities at the 100K Area follow requirements set by 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, and 100K-STD-OP-52370, Discharges to Ground.</i>	9/30/2020	50%
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	56%

TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	Current Month	Rolling 12 Months	Comment
Days Away, Restricted or Transferred	0	2	N/A
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 West Basin Deactivation
 - In support of work resumption and the implementation of social distancing for the return to normal work locations, Operations Maintenance personnel erected cough guards in 105KW at the reception desk, mask issuance and sentinel stations; conducted walk downs in facilities to evaluate potential additional modification needs to support social distancing; and worked to obtain additional hand sanitizer. Maintenance also worked, with Radiation Control guidance, on step-off pad (SOP) protocols for social distancing
 - Operations Closure personnel began developing training and finalizing procedures for GFMR operations in the 105KW Basin.
 - Key GFMR documentation approved during the period included the Fire Marshal Permit, the Operational Acceptance Test Plan, and NCO qualification document for the sampling qualification.
 - The 100KW Site 3 Mobile Office Short Circuit Coordination Study/Arc Flash Analysis was approved by the Environmental Compliance Officer. The environmental screening of the work package for the North Load Out Pit inspection was conducted.
 - KBO Engineering reviewed GFMR fabrication drawings design change notice, reviewed an engineering change request to reconfigure the Engineered Container Retrieval and Transfer System (ECRTS) to support the ECRTS sand filter retrieval, received revised GFMR Sludge Transport & Storage Container/Cask Leak Test Procedure, and reviewed processing procedure and flow paths. Drawing development for the new GFMR equipment and removal of safety significant designations continued.
 - KBO Engineering completed review and approval of the final data package for the vertical pipe casing (VPC) alignment tools fabrication, continued development of VPC installation construction aid and continued writing the VPC Mock-up Material Loading and Grouting Plan.

- o 100K Soil Remediation
 - The Soil Remediation team worked on planning for activities supporting returning to work in normal work locations, revising basis of estimate documents for planning purposes, and continued to coordinate the details of the schedule for remediation activities around 105KW.
 - Applied monthly fixative to disturbed soil at the waste sites in the 100K Area.

RRMP, 324 Building Disposition Project

- Equipment procurements have continued for the following:
 - 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 Self-leveling lifting device.
 - o B Cell 10T Crane.
- Miscellaneous:
 - o Essential operations.
 - o Social distancing planning.
 - o Resumption planning.
 - o Temporary alternative work location as appropriate.
- Engineering:
 - o Ongoing support to engineered equipment procurements.
 - o Revising the current Operations Plan.
 - o Revising the Project Execution Plan.
 - o Completing structural design review report.

Project Technical Services

- Training and procedures.
- Operations program.

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 Environmental Restoration Disposal Facility for grouting and disposal.

Status

Results from a nondestructive assay (NDA) performed on a shielded ion exchange module staged west of 105KW in December through January were evaluated as a test case to determine if the NDA of TCA-1 is feasible for identifying specific radionuclide peaks in a shielded container. While the NDA of the ion exchange module 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 versus solidified without performing intrusive characterization. Setup of the area and completion of the NDA will be scheduled once non-minimum safe fieldwork resumes. Results of the NDA will be used to support fiscal year (FY) 2021 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 exiting 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 from across CHPRC and Jacobs will review the strategies and controls in place and identify recommendations for improving radiological practices and controls in the building by taking a holistic look at the full spectrum of operations.

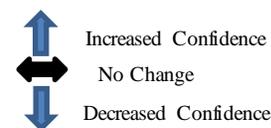
Status

The review team has provided their recommendations and the project is in the process of evaluating and implementing.

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: No significant changes in April.																												
Realized Risks (Risks that are currently impacting project cost/schedule)																												
RCC-300-296-30, 300-296 Design Changes Result in Increased Subcontractor Change Order(s)/ Claims	Due to the uncertainty and evolution of developments, design changes may be required upon completion of all design phases. Risk Handling Strategy: Control Probability: Very likely (>90%) Worst Case Impacts: \$3,318K, 136 days	●	↔	Risk Event: The verification of the final structural modification design has been delayed due to the realization of other risks (see Recovery Assessment, below) while performing soil verification and pilot holing, requiring additional design effort from the design subcontractor. <table border="1" style="width: 100%;"> <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>100</td> </tr> <tr> <td>CHPRC/RL review and issue final design.</td> <td>4/30/20</td> <td>75</td> </tr> </tbody> </table> Recovery Assessment: 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. Extensive comments were resolved, and the final design was completed on February 24, 2020. CHPRC and RL review and issuance of final design is forecasted to complete April 30, 2020 . The 28 calendar day slip from the forecast completion date reported in March is due to the receipt of outstanding vendor document submittals .	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	100	CHPRC/RL review and issue final design.	4/30/20	75
Recovery Action(s)	FC Date	%																										
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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	100																										
CHPRC/RL review and issue final design.	4/30/20	75																										
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)	Major crane repair must be performed during operations. This in-scope, unplanned work results in cost and schedule impacts to the project. Risk Handling Strategy: Accept Probability: Likely (75% to 90%) Worst Case Impacts: \$3,000K, 208 days	●	↔	Risk Event: In August, the REC A/D Crane failed during operations. <table border="1" style="width: 100%;"> <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>Vendor submit FAT/final data package – B Cell 10T crane.</td> <td>4/2/20</td> <td>100</td> </tr> <tr> <td>Vendor delivery to Acquisition Verification Service (AVS) – B Cell 10T crane</td> <td>5/12/20</td> <td>0</td> </tr> <tr> <td>Perform follow-up A Cell and A/D Crane investigation</td> <td>5/13/21</td> <td>0</td> </tr> <tr> <td>Procure/Fabricate A/D Crane parts</td> <td>6/2/21</td> <td>0</td> </tr> <tr> <td>Perform A/D Crane Repair</td> <td>7/15/21</td> <td>0</td> </tr> </tbody> </table> Recovery Assessment: 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 A/D crane investigation, procuring spare parts, and performing crane repairs has been updated in the Recovery Action table . To assist with mitigating crane failure, the forecasted completion date for vendor delivery of the 10T B-Cell Crane to AVS is May 12, 2020 .	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	Vendor submit FAT/final data package – B Cell 10T crane.	4/2/20	100	Vendor delivery to Acquisition Verification Service (AVS) – B Cell 10T crane	5/12/20	0	Perform follow-up A Cell and A/D Crane investigation	5/13/21	0	Procure/Fabricate A/D Crane parts	6/2/21	0	Perform A/D Crane Repair	7/15/21	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																										
Vendor submit FAT/final data package – B Cell 10T crane.	4/2/20	100																										
Vendor delivery to Acquisition Verification Service (AVS) – B Cell 10T crane	5/12/20	0																										
Perform follow-up A Cell and A/D Crane investigation	5/13/21	0																										
Procure/Fabricate A/D Crane parts	6/2/21	0																										
Perform A/D Crane Repair	7/15/21	0																										

Risk Title	Unmitigated Risk Impacts	Assessment		Comments															
		Month	Trend																
RL-0041/WBS-041																			
RCC-300-296-36, Contamination Experienced During Radiochemical Engineering Cells Operations	During REC cell cleanout (e.g., soil/debris removal, waste handling and facility modifications), the Cask Handling Area (CHA), truck lock or other support area becomes contaminated or the background dose is elevated to a level that operations cannot continue as currently planned. Significant cost and schedule impacts are incurred. Risk Handling Strategy: Control Probability: Very likely (>90%) Worst Case Impacts: \$225K, 70 days			<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>6/24/20</td> <td>25</td> </tr> <tr> <td>Return to airlock work - resumption actions.</td> <td>8/17/20</td> <td>10</td> </tr> <tr> <td>Return to Room 18 work - resumption actions.</td> <td>9/1/20</td> <td>10</td> </tr> </tbody> </table> <p>Recovery Assessment: No significant changes in April. Resuming work scope in radiologically controlled areas within the building is pending resolution of recovery actions performed under three distinct group sets: general controlled area, Room 18 and airlock. Upon successful completion of resumption actions and training, each group set 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.	6/24/20	25	Return to airlock work - resumption actions.	8/17/20	10	Return to Room 18 work - resumption actions.	9/1/20	10
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Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)																			
No critical risks are identified in April.																			
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			<p>Risk Event: Unexpected contamination found while performing structural modification activities.</p> <table border="1"> <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> <p>Mitigation Assessment: No significant changes in April. 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. The residual impacts of this risk are currently accepted with no further mitigation actions identified.</p>	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			<p>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.</p> <table border="1"> <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> <p>Mitigation Assessment: No significant changes in April. 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. Therefore, this risk is accepted by the project and will be removed from the spotlight chart in the next reporting period.</p>	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																	

Risk Title	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
RL-0041/WBS-041													
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 SOP. Sampling determined it to be beta contamination (suspected strontium-90) without a corresponding gamma component, resulting in project impacts. <table border="1"> <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 April. 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 (PM) 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 and 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"> <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, PM 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 April. 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, PM 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, PM activities are being conducted to assure reliability of REC shield doors.	Ongoing	N/A											
RCC-300-296-15, 300-296 Cell Sealing, Micropile Installation, Interference Removal, Core Drilling and Soil Stabilization Takes Longer Than Planned	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. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$3,317.6K, 96 days	●	↔	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. <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Mobilize and train a 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> Mitigation Assessment: No significant changes in April. 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.	Mitigation Action(s)	FC Date	%	Mobilize and train a 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 a 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	Failures of the following procured equipment, including the floor saw, master slave manipulators (MSMs) used in REC cells, Remote Excavator Arms, through supports, cell dams, transfer mechanism and cameras and lights. Risk Handling Strategy: Control Probability: Low (10% to 25%) Worst Case Impacts: \$1,336K, 90 days	●	↔	Risk Trigger Metric: Failure of remote equipment will result in schedule delays due to equipment replacement and repairs because 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. <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>12/3/20</td> <td>23</td> </tr> </tbody> </table> Mitigation Assessment: No significant changes in April. 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.	Mitigation Action(s)	FC Date	%	Procure MSM manipulators and storage carts	12/30/19	100	Procure universal cutting tool	12/3/20	23
Mitigation Action(s)	FC Date	%											
Procure MSM manipulators and storage carts	12/30/19	100											
Procure universal cutting tool	12/3/20	23											

Risk Title	Unmitigated Risk Impacts	Assessment		Comments												
		Month	Trend													
RL-0041/WBS-041																
RCC-300-296-33, Increased Rad Exposure to Workers	High dose in the airlock causes excessive radiation exposure to personnel, resulting in in-scope unplanned work impacts of cost and/or schedule. Risk Handling Strategy: Control Probability: Low (10% to 25%) Worst Case Impacts: \$240K, 36 days	●	↔	<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 the 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>7/23/20</td> <td>5</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in April. 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 the use of increased shielding and ALARA controls.	Ongoing	N/A	Procurement of specialized containers - GC/44" bins.	7/23/20	5			
Mitigation Action(s)	FC Date	%														
Continue the use of increased shielding and ALARA controls.	Ongoing	N/A														
Procurement of specialized containers - GC/44" bins.	7/23/20	5														
100K-SR-05, Unexpected Site Conditions	Unexpected site conditions are encountered during soil excavation activities, resulting in recovery actions, causing unplanned and project in-scope work and schedule delays. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$760K, 32 days	●	↔	<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 contaminants, 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>Data collection (includes review of the Waste Information Data System information, review of historical drawings, identify contaminants of concern, civil survey, etc.).</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Ground penetrating radar.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Develop/issue an approved excavation permit before remediation begins.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: The mitigation actions identified above are standard business practices when performing excavation activities on the Hanford Site. These steps are designed to minimize the probability of encountering unknown utilities, structures or contamination.</p>	Mitigation Action(s)	FC Date	%	Data collection (includes review of the Waste Information Data System information, review of historical drawings, identify contaminants of concern, civil survey, etc.).	Ongoing	N/A	Ground penetrating radar.	Ongoing	N/A	Develop/issue an approved excavation permit before remediation begins.	Ongoing	N/A
Mitigation Action(s)	FC Date	%														
Data collection (includes review of the Waste Information Data System information, review of historical drawings, identify contaminants of concern, civil survey, etc.).	Ongoing	N/A														
Ground penetrating radar.	Ongoing	N/A														
Develop/issue an approved excavation permit before remediation begins.	Ongoing	N/A														
100K-SFGF-02, 105 KW SF & GF – Subcontractor Design Changes During Fab/Construction	During fabrication and installation, problems with design are encountered resulting in design changes, resulting in cost and schedule impacts. Risk Handling Strategy: Control Probability: Medium (26% to 74%) Worst Case Impacts: \$400K, 32 days	●	↔	<p>Risk Trigger Metric: During installation of the ECRTS tie-in equipment in support of VPC installation and the GFMRS, design issues are identified that could not be determined during mockup testing at the Maintenance and Storage Facility, 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 GFMRS.</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> <tr> <td>Perform construction acceptance testing on the GFMRS.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p>Mitigation Assessment: No significant changes in April. Installation of the GFMRS is progressing as construction acceptance testing completed on March 12, 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 GFMRS.	Complete	100	System constructability review and field walk downs will be implemented to reduce the risk.	Complete	100	Perform construction acceptance testing on the GFMRS.	Complete	100
Mitigation Action(s)	FC Date	%														
Integrated system testing/operator training in support of KW Basin GFMRS.	Complete	100														
System constructability review and field walk downs will be implemented to reduce the risk.	Complete	100														
Perform construction acceptance testing on the GFMRS.	Complete	100														
Unsigned Risks (Pending ownership of identified risks/opportunities)																
No unassigned risks identified in April.																

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	13.6	9.3	12.4	(4.2)	-31.2%	(3.0)	-32.7%

Numbers rounded to the nearest \$0.1 million.

CM Schedule Performance (\$-4.2M/-31.2%)

The unfavorable schedule variance is the result of PSWO issued to CHPRC by RL on March 24, 2020. The PSWO covered non-portable work activities (not associated with minimum safe operations that could not be performed in a safe and compliant manner) consistent with the Centers for Disease Control and Prevention (CDC) COVID-19 guidelines and the “Stay Home, Stay Healthy” order issued by the governor of Washington State. Non-portable work activities consist of work that cannot be performed in a remote manner (e.g., telework from home). The work scope of this account is not considered minimum safe operations, as it involves construction in the field. Therefore, activities were demobilized and placed in safe configuration. CHPRC and subcontractor labor assigned to work that could not be performed in a remote manner were charged to work breakdown structure (WBS) 041.97.01.04 to collect and segregate unproductive time caused by the PSWO. The Earned Value Method is based on physical progress in the field. As a result, no performance was taken, causing the unfavorable schedule variance.

CM Cost Performance (-\$3.0M/-32.7%)

The unfavorable cost variance for the 324 Building Disposition Project and 100K Area are the result of the PSWO issued to CHPRC by RL on March 24, 2020. The PSWO covered non--portable work activities that could not be performed in a safe and compliant manner consistent with CDC COVID-19 guidelines and the “Stay Home, Stay Healthy” order issued by the governor of Washington State. Non-portable work activities consists of work that cannot be performed in a remote manner (e.g., telework from home). Performance of work supporting the continuation of minimum safe operations and activities able to be performed in a remote manner continued to be reported to this WBS. CHPRC and subcontractor labor assigned to the work scope that could not be performed in a remote manner were charged to WBS 041.97.01.04 to collect and segregate unproductive time caused by the PSWO. The charging of planned labor to WBS 041.97.01.04 created the unfavorable cost variance.

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	755.6	739.9	732.1	(15.8)	-2.1%	7.7	1.0%	809.9	803.5	71.4	6.4

Numbers are rounded to the nearest \$0.1 million.

CTD Schedule Performance (-\$15.8M/-2.1%)

The CTD schedule variance is within reporting thresholds.

CTD Cost Performance (+\$7.7M/+1.0%)

The CTD cost variance is within reporting thresholds.

Variance at Completion (+\$6.4M/+0.8%)

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	147.2	3.6

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 March. The spending forecast decreased \$3 million from March due to CHPRC and subcontractor labor assigned to work that could not be performed in a remote manner were charged to Control Account, 041.97.01.04, to collect and segregate unproductive time caused by the PSWO. In addition for the 324 Disposition Project, the change in the forecast is due to a reduction in the Apollo burn rate (based on their proposal) and associated fee. In addition, material costs were reduced since no field work is being performed.

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*-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	2/25/2020(A)	3/24/2020(A)
RL approval Emergency Planning Hazards assessment final	3/12/2020(A)	4/27/2020

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

April 2020
CHPRC-2020-04, Rev. 1
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 (S&M) 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

Implemented a baseline change request (BCR) to fiscal year (FY) 2020 planning to incorporate an engineering evaluation and initiate engineering evaluation/cost analysis (EE/CA) development. This EE/CA will be prepared in accordance with the National Contingency Plan (40 CFR 300.415(b)(4)(i), "National Oil and Hazardous Substances Pollution Contingency Plan," "Removal Action") to assist the U.S. Department of Energy (DOE), Richland Operations Office (RL) in identifying the most effective removal action alternative for placing the FFTF Complex in a configuration that is protective of human health and the environment in the near term. The same BCR also removed scope that will not be performed in FY2020 associated with lining water tanks and treatment of waste for permanent disposal.

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 efforts 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 RL. A change to FY2020 planning was implemented in April to support budget requirements to address this task. A request for proposal is being prepared to solicit prospective engineering firms for evaluation performance.

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	0.3	0.3	0.2	0.0	0.0%	0.1	31.6%

Numbers are rounded to the nearest \$0.1 million.

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

The CM schedule variance is within reporting thresholds.

CM Cost Performance: (+\$0.1M/+31.6%)

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	30.5	30.5	25.7	0.0	0.0%	4.8	15.6%	32.2	27.8	2.1	4.4

Numbers are rounded to the nearest \$0.1 million.

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

The CTD schedule variance is within reporting thresholds.

CTD Cost Performance: (+\$4.8M/+15.6%)

The CTD favorable cost variance is due to reduction in S&M requirements at FFTF, because 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/+13.7%)

The VAC 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	4.0	0.8

Numbers are rounded to the nearest \$0.1 million.

Funds Analysis

FY2020 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 \$4.0 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 S&M 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



April 2020
CHPRC-2020-04, Rev. 1
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

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

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

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME Plateau Remediation Contract		a. FROM (YYYYMMDD) 2020 / 03 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2020 / 04 / 26	
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	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	1,455	1,463	1,477	8	-15	108,468	105,858	98,904	-2,609	6,955	0	0	0	112,820	104,726	8,094		
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	22,844	0	-22,844	1,111	1,111	23,337	0	-22,226	0	0	0	1,111	30,579	-29,468		
37 - Resource Mgmt & Strategic Intg	136	136	89	0	47	9,336	9,336	6,185	0	3,151	0	0	0	9,926	6,777	3,149		
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		
3B - PFP Closure Project	793	365	1,990	-428	-1,625	1,056,507	1,042,419	1,153,565	-14,088	-111,146	0	0	0	1,076,154	1,194,340	-118,187		
3C - Waste & Fuels Management Project	16,072	14,753	8,179	-1,319	6,574	1,389,330	1,384,480	1,298,876	-4,850	85,604	0	0	0	1,461,681	1,379,779	81,902		
3D - Soil & Groundwater Remediation	12,596	6,860	5,001	-5,736	1,859	1,490,273	1,482,319	1,430,103	-7,954	52,216	0	0	0	1,541,085	1,490,543	50,542		
3G - K Basin Oper & Plateau Remediation Project	7,299	4,873	3,454	-2,426	1,419	1,023,027	1,017,439	982,771	-5,588	34,668	0	0	0	1,050,171	1,017,449	32,722		
3H - River Risk Management Project	11,556	7,960	4,511	-3,597	3,448	364,285	351,087	371,136	-13,198	-20,049	0	0	0	412,142	425,214	-13,073		
3K - Central Plateau Risk Reduction	6,094	3,467	3,141	-2,627	326	539,374	528,694	518,891	-10,680	9,803	0	0	0	563,974	554,274	9,700		
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																		
e. SUBTOTAL (Performance Measurement Baseline)	56,002	39,877	50,688	-16,125	-10,811	6,577,087	6,518,119	6,436,495	-58,968	81,624	0	0	0	6,824,439	6,756,410	68,029		
f. MANAGEMENT RESERVE														48,364				
g. TOTAL	56,002	39,877	50,688	-16,125	-10,811	6,577,087	6,518,119	6,436,495	-58,968	81,624	0	0	0	6,872,803				

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: 2020/03/23 b. TO: 2020/04/26							
5. CONTRACT DATA																				
a. ORIGINAL NEGOTIATED COST \$4,312,366			b. NEGOTIATED CONTRACT CHANGE \$2,540,247		c. CURRENT NEGOTIATED COST (A + B) \$6,852,614		d. ESTIMATED COST AUTH UNPRICED WORK \$17,545		e. CONTRACT BUDGET BASE (C + D) \$6,870,159		f. TOTAL ALLOCATED BUDGET \$6,872,803		g. DIFFERENCE (E - F) (\$2,645)							
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 May-20 (4)	+2 Jun-20 (5)	+3 Jul-20 (6)	+4 Aug-20 (7)	+5 Sep-20 (8)	+6 Oct-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)	6,521,085	33,192	45,286	45,134	56,896	44,629	56,173	0	3,391,477	391,653	471,323	504,826	485,028	470,649	563,065	547,270	0	6,825,290		
b. BASELINE CHANGES AUTH DURING REPORT PERIOD																				
BCR-013-20-017R0 - Cask Storage System Fabrication Schedule Correction																0		0		
BCR-030-20-013R0 - Detail Plan KE Soil Flushing																(211)		(211)		
BCR-030-20-014R0 - Incorporate Design for CA-AX Extraction System																(0)		(0)		
BCR-042-020-004R0 - RL-042 Incorporation of IPL Directed Scope																(640)		(640)		
BCRA-PRC-20-012R0 - HPIC Updates April FY2020																0		0		
c. PM BASELINE (END OF PERIOD)	6,577,087	56,002	45,273	45,166	56,779	44,276	55,859	0	3,391,477	391,653	471,323	504,826	485,028	470,649	563,065	546,419	0	6,824,439		
7. MANAGEMENT RESERVE																		48,364		
8. TOTAL																		6,872,803		

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 / 03 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2020 / 04 / 26	
		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 MAY 2020 (4)	+2 JUN 2020 (5)	+3 JUL 2020 (6)	+4 AUG 2020 (7)	+5 SEP 2020 (8)	+6 OCT 2020 (9)	NOV 2020 (10)	DEC 2020 (11)	JAN 2021 (12)	ATCOMPLETE (13)	(14)		
300 - Office of the President	34	2,272	14	15	16	16	16	16	0	0	0	0	0	0	2,348
303 - Internal Audit	3	625	5	5	5	5	5	5	0	0	0	0	0	0	650
304 - General Counsel	3	574	3	3	3	4	4	4	0	0	0	0	0	0	588
32 - Safety Health Security & Quality	51	8,883	63	64	64	64	64	64	0	0	0	0	0	0	9,204
34 - Env Program & Strategic Plng	29	6,080	40	40	41	42	40	40	0	0	0	0	0	0	6,281
35 - Business Services	47	8,450	59	60	61	63	64	64	0	0	0	0	0	0	8,758
36 - Prime Contract & Proj Integr	1118	5,726	36	37	38	38	38	38	0	0	0	0	0	0	5,911
37 - Resource Mgmt & Strategic Intg	38	3,599	42	43	45	45	45	45	0	0	0	0	0	0	3,818
38 - Project Technical Services	28	9,038	40	41	41	41	41	41	0	0	0	0	0	0	9,241
3B - PFP Closure Project	30	54,833	198	192	169	187	177	226	219	152	92	10	0	0	56,456
3C - Waste & Fuels Management Project	153	60,783	416	409	408	404	401	25	20	20	19	21	0	0	62,927
3D - Soil & Groundwater Remediation	103	44,357	280	274	294	291	272	52	38	33	9	0	0	0	45,900
3G - K Basin Oper & Plateau Remediation Project	81	35,729	231	223	223	232	240	41	30	37	50	77	0	0	37,112
3H - River Risk Management Project	81	10,278	226	227	227	225	230	29	24	22	23	162	0	0	11,672
3K - Central Plateau Risk Reduction	94	21,459	259	258	254	255	255	24	9	12	3	4	0	0	22,792
g. TOTAL DIRECT	1,891	272,685	1,911	1,889	1,887	1,911	1,892	397	341	276	197	274	-	0	283,659

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) 2020/03/22	
b. LOCATION (Address and ZIP Code) Richland, WA 99354		b. NUMBER DE-AC06-08RL14788		b. PHASE Base			b. TO (YYYY/MM/DD) 2020/04/26		
		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:	56,002	39,877	50,688	(16,125)	-28.8%	(10,811)	-27.1%	0.71	0.79
Cumulative:	6,577,087	6,518,119	6,436,495	(58,968)	-0.9%	81,624	1.3%	0.99	1.01
	BAC	EAC	VAC in \$	VAC in %	TCPI				
At Complete:	6,824,439	6,756,410	68,029	1.0%	0.96				
Explanation of Variance/Description of Problem:									
Current Period Schedule and Cost Variance: The current month (CM) negative schedule and cost variances were the result of the PSWO issued to CHPRC by RL on March 24, 2020. The PSWO covered non-portable work activities not associated with continuation of minimum safe operations that could not be performed in a safe and compliant manner consistent with the Centers for Disease Control and Prevention COVID-19 guidelines and the "Stay Home, Stay Healthy" order issued by the governor of Washington State. Non-portable work activities are work that cannot be performed in a remote manner (e.g., telework from home). A large amount of discrete scope across the projects was demobilized and placed in safe configuration in late March. CHPRC and subcontractor labor assigned to work that could not be performed in a remote manner charged to segregated accounts for unproductive time caused by the PSWO. The cost for the standby of subcontractor equipment remaining on site during this period was also charged to these segregated accounts. As the method of earning performance for discrete scope is based on physical progress in the field, no performance was taken on many accounts, causing the negative schedule and cost variances.									
Cumulative Schedule Variance: The variance is within reporting thresholds.									
Cumulative Cost Variance: The variance is within reporting thresholds.									
Impact:									
Current Period Schedule: The current month schedule variance is not expected to impact the overall contract schedule.									
Current Period Cost: Cost impacts are being estimated and will be incorporated in the project estimate to complete (ETC).									
Cumulative Schedule: N/A									
Cumulative Cost: N/A									
Corrective Action:									
Current Period Schedule: No corrective actions have been identified.									
Current Period Cost: No corrective actions necessary.									
Cumulative Schedule: N/A									
Cumulative Cost: N/A									
Monthly Summary (to include technical causes of VARs, Impacts, and Corrective Action(s):									
CHPRC continues to track completion of the contract within budget. Currently, a variance at completion of \$68.0 million is projected, with an additional \$48.4 million of management reserve (MR) for a total positive variance of \$116.4 million. For April, the project was 28.8 percent behind of schedule and 27.1 percent over planned cost. Contract to date the project was 0.9 percent behind schedule and 1.3 percent under planned cost.									
The difference between the Contract Budget Base and the Total Allocated Budget on Format 3 changed by \$2.6M for the month of April. The change is due to incorporation of Correspondence No. 2001502, Contract Modification 735, Definitization of Modification 718, FY20 Extension, increasing Contract Cost by \$534.0M. Authorized Unpriced Work was reduced \$537.5M to align to the un-definitized balance of prior year Plutonium Finishing Plant Demolition Project, RL-0011.C2 contingency. The delta will offset in the month of May 2020, when the Total Allocated Budget will be modified to align with the Contract Budget Base.									
6 BCRs were implemented in the current period. They included: BCR-013-20-017R0, Cask Storage System Fabrication Schedule Correction BCR-030-20-013R0, Detail Plan KE Soil Flushing BCR-030-20-014R0, Incorporate Design for C A-AX Extraction System									

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

BCR-042-20-004R0, RL-0042 Incorporation of IPL Directed Scope
 BCRA-PRC-20-012R0, HPIC Updates April FY2020
 BCRA-PRC-20-013R0, PRCBCR Log Reconciliation April 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 +\$68.0 million, +1.0% and is within reporting thresholds.

Format 1 and 3 Contract Data:

Contract Price Adjustments

CPS - In Process		
	Total Authorized Unpriced Work	\$17,545
Approved Adjustments to Contract Price (not reflected in B.4-1 Table)		
	Total Negotiated Cost Changes	-
	Grand Total Adjustments	\$17,545

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 April.

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 April.

Fee Activity

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

There was no change to fee in April.

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 TrendLog 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: 5/21/2020	Approved by:	Date:
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Appendix B

Project Services and Support (WBS 000)



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

M. A. Wright
Vice President for
Project Technical
Services

April 2020
CHPRC-2020-04, Rev. 1
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

Rhonda Connolly
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

April 2020
CHPRC-2020-04, Rev. 1
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

April 2020
CHPRC-2020-04, Rev. 1
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

In April, the Plutonium Finishing Plant (PFP) Closure Project team received the U.S. Department of Energy (DOE), Headquarters (HQ) approval for Critical Decision (CD)-4, *Approve Project Completion*, for the PFP decontamination and dismantlement Capital Asset Project (CAP) (RL-0011.C1) as required by DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*. The project is complete and will no longer be reported on.

The following are key metrics associated with this CAP.

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

KEY ACCOMPLISHMENTS

RL-0011.C1 Accomplishments:

- CD-4 approved; project will no longer be reported.

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 April .				
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 April .				
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 April .				
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 April .				
Unassigned Risks (Pending ownership of identified risks/opportunities)				
No unassigned risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in April .				

CRITICAL PATH ANALYSIS

Project is completed.

SCHEDULE MARGIN/MANAGEMENT RESERVE

CD-4 has been approved and schedule margin/management reserve will no longer be reported.

CRITICAL DECISION MILESTONE STATUS

Number	Title	Due Date*	Actual Date	Status/ Comment
CAP.1	Removal of 174 gloveboxes from 234-5Z	July 2020	4/10/2020(A)	The CAP 1 Project received approval from DOE-HQ for CD-4, <i>Approve Project Completion</i> , on April 10, 2020.

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

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

Nothing to report at this time.

DOE ACTIONS/DECISIONS

All actions complete.

Appendix C.2

Capital Asset Project

RL-0011.C2 - Demolition of PFP Facilities



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

April 2020
CHPRC-2020-04, Rev. 1
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

In April, the Plutonium Finishing Plant (PFP) Closure Project team transitioned the PFP site to minimum safe operations and maintained the site in that configuration in compliance with the U.S. Department of Energy (DOE), Richland Operations Office (RL) partial stop work order (PSWO). Minimum safe operations consisted of a survey of PFP radiological boundaries and applying fixative to the PFP demolition area. Additionally, a small complement of resources performed limited planning activities in support of implementation of social distancing in anticipation of the future return to normal operations.

<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	-	-	1	-

KEY ACCOMPLISHMENTS

RL-0011.C2 Accomplishments:

- Due to the novel coronavirus (COVID-19), a national emergency was declared on March 13, 2020. On March 24, 2020, RL issued CH2M HILL Plateau Remediation Company (CHPRC) a PSWO as a part of the Hanford Site response to COVID-19. The PFP site was transitioned to minimum safe operations and maintained that configuration. Minimum safe operations consisted of completion of required surveillances and maintenance to protect government property and maintain safety and environmental compliance. These efforts included surveying PFP radiological boundaries and applying fixative to the PFP demolition area.

MAJOR ISSUES

Issue

The project’s fiscal year (FY) 2020 forecast reflects spending approximately \$4.1 million more than the entire allotted funding carryover balance. While RL-0011 was allocated a supplemental \$4.9 million, additional funding is required in FY2020 to complete PFP demolition. The forecast reflects that the current projected funding would not be exceeded until about May 2020.

Corrective Action

Resolve funding shortfall. Shift personnel assigned to the PFP Project to support the West Area Remediation Project (WARP) in RL-0040 when work resumption is expected in mid-June to conserve the limited inventory personal protective equipment (PPE) following return to normal operations until site PPE inventory and resupply can support completing of the RL-0011C.2 project. A secondary benefit of shifting labor resources to WARP activities will be to reduce the near-term RL-0011 spending rate until this issue is resolved.

Status

CHPRC is working with the RL to address this issue. A \$3 million funds reallocation between projects has been identified and should resolve prior to May 2020 expected funds overrun. Planning is underway to implement the temporary shift of personnel assigned to PFP to WARP to conserve limited PPE inventory.

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/C.2													
Explanation of major changes to the project monthly stoplight chart:													
Risk PFP-P5-007, <i>Delay of PRF Debris Load Out</i> , was added to the stoplight chart as a realized risk in April.													
Realized Risks (Risks that are currently impacting project cost/schedule)													
No realized risks identified in April.													
PFP-P5-007: Delay of PRF Debris Load Out	The loadout of Plutonium Reclamation Facility (PRF) debris is delayed. Risk Handling Strategy: Accept Probability: Medium (26% to 74%) Worst Case Impacts: \$0, 32 days	●	↓	Risk Event: The project has not executed debris loadout at the productivity rate that was planned. The project has experienced accumulation of water during 236-Z rubble loadout and more soil per loadout entry than expected. <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr style="background-color: #e0e0e0;"> <th style="width: 70%;">Risk Recovery Action(s)</th> <th style="width: 15%;">FC Date</th> <th style="width: 15%;">%</th> </tr> </thead> <tbody> <tr> <td>Communicate PRF load out options with RL.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Encourage additional worker involvement.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> Recovery Action Assessment: Crews are loading out more soil associated with debris collection than expected. Additional loadout may be needed than what was planned that will push project completion. A change recommended by craft personnel in the demolition approach has shown early signs of improved performance.	Risk Recovery Action(s)	FC Date	%	Communicate PRF load out options with RL.	Ongoing	N/A	Encourage additional worker involvement.	Ongoing	N/A
Risk Recovery Action(s)	FC Date	%											
Communicate PRF load out options with RL.	Ongoing	N/A											
Encourage additional worker involvement.	Ongoing	N/A											
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)													
No critical risks identified in April.													
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)													
No high threat risks identified in April.													

Unmitigated Risk Impacts	Assessment		Comments															
	Month	Trend																
RL-0011/C.2																		
FY2020 Key Risks																		
<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%)</p> <p>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>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p>Mitigation Assessment: No major changes in April. There were no weather events that impacted the project in April.</p>	Mitigation Action(s)	FC Date	%	None identified at this time.	N/A	N/A									
Mitigation Action(s)	FC Date	%																
None identified at this time.	N/A	N/A																
<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%)</p> <p>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 April. 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.</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 April.																		

CRITICAL PATH ANALYSIS

The PFP critical path schedule begins with the completion of PRF loadout, which is anticipated by November 19, 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 February 24, 2021. The five-month delay in the forecast completion of PRF loadout and demolition reflects the anticipated impacts of COVID-19 and the PSWO, including temporarily shifting labor resources to WARP activities to conserve PPE and the phased return to normal operations.

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	2/24/2021	The forecasted completion slipped five months due to a phased resumption approach and to conserve personal protective equipment following COVID-19 impacts.

*Due date reflects Critical Decision-4 (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

April 2020
CHPRC-2020-04, Rev. 1
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 / 03 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2020 / 04 / 26	
		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 121,732	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 17,545	d. TARGET PROFIT/FEE 5,000	e. TARGET PRICE 126,732	f. ESTIMATED PRICE 187,976	g. CONTRACT CEILING 126,732	h. ESTIMATED CONTRACT CEILING 187,976	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 182,976		c. SIGNATURE		b. TITLE Prime Contract Compliance Manager		d. DATE SIGNED (YYYYMMDD)	
a. BEST CASE 182,403		139,277		-43,699			
c. MOST LIKELY 182,976							

8. PERFORMANCE DATA																			
CAPN.PBS Control Account.PARS 2 WBS (2)		CURRENT PERIOD						CUMULATIVE TO DATE						REPROGRAMMING ADJUSTMENTS		AT COMPLETION			
		BUDGETED COST		ACTUAL COST WORK PERFORMED		VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED		VARIANCE		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)																			
RL-0011 Nuclear Mat Stab & Disp PFP																			
RL_0011_C2.05 Disposition PFP Facility	0	10	688	10	-679	138,704	125,416	169,090	-13,289	-43,675	0	0	0	0	0	138,704	182,403	-43,699	
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
d. UNDISTRIBUTED BUDGET																			
e. SUBTOTAL	0	10	688	10	-679	138,704	125,416	169,090	-13,289	-43,675	0	0	0	0	0	138,704	182,403	-43,699	
f. MANAGEMENT RESERVE																573			
g. TOTAL	0	10	688	10	-679	138,704	125,416	169,090	-13,289	-43,675	0	0	0	0	0	139,278			
9. RECONCILIATION TO CONTRACT BUDGET BASELINE																			
a. VARIANCE ADJUSTMENT																			
b. TOTAL CONTRACT VARIANCE																			
										-13,289	-43,675			139,278	182,403	-43,125			

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

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

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL_0011_C2 PFP Demolition Capital Asset Project		a. FROM (YYYYMMDD) 2020 / 03 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2020 / 04 / 26	
		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	0	10	688	10	-679	138,704	125,416	169,090	-13,289	-43,675	0	0	0	138,704	182,403	-43,699	
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
d. UNDISTRIBUTED BUDGET														0	0	0	
e. SUBTOTAL (Performance Measurement Baseline)	0	10	688	10	-679	138,704	125,416	169,090	-13,289	-43,675	0	0	0	138,704	182,403	-43,699	
f. MANAGEMENT RESERVE														573			
g. TOTAL	0	10	688	10	-679	138,704	125,416	169,090	-13,289	-43,675	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 b. LOCATION: Richland, WA			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: 2020/03/23 b. TO: 2020/04/26											
5. CONTRACT DATA			a. ORIGINAL NEGOTIATED COST 51,683		b. NEGOTIATED CONTRACT CHANGE \$70,049		c. CURRENT NEGOTIATED COST (A + B) \$121,732		d. ESTIMATED COST AUTH UNPRICED WORK \$17,545		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 May-20 (4)	+2 Jun-20 (5)	+3 Jul-20 (6)	+4 Aug-20 (7)	+5 Sep-20 (8)	+6 Oct-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)	138,704	54	0	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																		0	0	0
c. PM BASELINE (END OF PERIOD)	138,704	0	0	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 / 03 / 23	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2020 / 04 / 26	
		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 MAY 2020 (4)	+2 JUN 2020 (5)	+3 JUL 2020 (6)	+4 AUG 2020 (7)	+5 SEP 2020 (8)	+6 OCT 2020 (9)	NOV 2020 (10)	DEC 2020 (11)	JAN 2021 (12)	ATCOMPLETE (13)	(14)		
3B - PFP Closure Project	9	4,973	158	104	12	12	17	94	83	40	44	0	0	5,537	
g. TOTAL DIRECT	9	4,973	158	104	12	12	17	94	83	40	44	0	0	5,537	

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) 2020/03/23			
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2020/04/26			
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE No X Yes (YYYYMMDD) 2009 / 09 / 18					

Direct Projects										
5. Evaluation		Budget	Earned	Actuals	SV in \$	SV in %	CV in \$	CV in %	SPI	CPI
Current:		0.0	9.8	688.3	9.8	0	-678.5	-6931.9%	0	0.01
Cumulative:		138,704.4	125,415.9	169,090.4	-13,288.5	-9.6%	-43,674.5	-34.8%	0.90	0.74
		BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:		138,704.4	182,402.9	-43,698.5	-31.5%	0	1.00			

Explanation of Variance/Description of Problem:

Current Month:

Schedule Variance: The current month schedule variance is within thresholds.

Cost Variance: The current month negative cost variances were the result of the Partial Stop Work Order (PSWO) issued to CHPRC by RL on March 24, 2020. The PSWO covered non-portable work activities not associated with continuation of minimum safe operations that could not be performed in a safe and compliant manner consistent with The Centers for Disease Control and Prevention (CDC) COVID-19 guidelines and the "Stay Home, Stay Healthy" order issued by the Governor of Washington State. Non-portable work activities are work that cannot be performed in a remote manner (e.g., telework from home). The Project was demobilized and placed in safe configuration in late March. CHPRC and subcontractor labor assigned to work that could not be performed in a remote manner were charged to control account 011.97.01.04 to collect and segregate unproductive time caused by the PSWO. As the method of earning performance is based on physical progress in the field, no performance was taken, causing the negative cost variances.

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 February 2021. 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 November 19, 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 April.

The following items are addressed, as applicable:

- Schedule Margin Analysis: No drawdowns of schedule margin were made in the month of April.
- Data dictionary Changes: No change in the month of April.
- Forecast Schedule with No Baseline: No change in the month of April.
- UB Balance: No change in the month of April.
- Negative Actual Cost of Work Performed (ACWP): No change in the month of April.
- Earned Actual Cost (EAC) Analysis: Best Case = \$182,403; Most Likely = \$182,976; Worst Case = \$182,976. 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 April.
- Management Reserve Transactions: No change in the month of April.
- Freeze Period Changes: No change in the month of April.
- Retroactive Changes: No change in the month of April.
- Earned Value Type Changes: No change in the month of April.

Prepared by: Jason Knowlton

Date: 5/12/2020

Approved by:

Date: