

# Monthly Performance Report

July 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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**APPROVED**

*By Janis D. Aardal at 2:23 pm, Aug 20, 2020*

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Release Approval

Date

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**CH2MHILL**  
**Plateau Remediation Company**  
*a Jacobs company*



L. Ty Blackford  
President and  
Chief Executive Officer

# Monthly Performance Report

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

July 2020  
CHPRC-2020-07, Revision 0

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## EXECUTIVE SUMMARY

CH2M HILL Plateau Remediation Company (CHPRC) has advanced cleanup throughout the Hanford Site during July. On March 24, 2020, the U.S. Department of Energy (DOE), Richland Operations Office (RL) issued CHPRC a partial stop work order (PSWO) due to the coronavirus (COVID-19). A safe and orderly ramp down of all operation activities was implemented that ensured the continuation of non-portable essential mission-critical 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 taken and continues to take reasonable actions to protect and provide support to the workforce. On July 20, 2020, CHPRC received Modification 747 to the Plateau Remediation Contract extending the PSWO through September 30, 2020. With RL approval, during July CHPRC continued the implementation of Phase 1, a partial phased return to normal work locations for low-risk non-portable operation activities, which had been halted in response to the RL-directed PSWO.

Major accomplishments included the following:

- Plutonium Finishing Plant (PFP) Closure Project:** The PFP Closure Project continued to maintain essential mission-critical operations in compliance with the RL-directed PSWO by performing a survey of PFP radiological boundaries, re-applying soil fixative to the PFP demolition site and performing equipment maintenance. Crews also resumed shipments of previously loaded radioactive waste. Twenty-six containers of final-phase demolition debris were shipped to the Environmental Restoration Disposal Facility for permanent disposal, including 20 Contaminated Equipment – Special Package Authorization shipments of Plutonium Recovery Facility debris containers.
- Waste and Fuels Management (W&FM) Project:** The W&FM Project continued to perform essential mission-critical operations in compliance with the RL-directed PSWO. The W-135, Management of Cesium and Strontium Capsule (MCSC) Project, *Waste and Encapsulation and Storage Facility (WESF) Modifications*, Line Item project worked on finalizing DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, Critical Decision (CD) CD-2, *Approve Performance Baseline*, and CD-3, *Approve Start of Construction*, deliverables. The Capsule Storage Area General Plant Project continued construction of the capsule storage pad. Fabrication of the Cask Storage System transfer and ancillary equipment for future installation in the Mockup Facility and WESF continued. Detailed measurements inside G Cell were taken to support Maintenance and Storage Facility mockup preparations. At WESF, the crew completed the decontamination of the window frame (i.e., fixed high contamination area [HCA]) and reinstallation of gasket material on the G Cell window refurbishment with the assistance of the vendor. At the Central Waste Complex (CWC), nondestructive assay on four waste packages in Outside Storage Area A was conducted. At T Plant, weighing of Sludge Treatment and Storage Containers (STSCs) containing sludge from the 105K West Reactor Basin in two cells was completed, including the first annual STSC weighing for Cell 13L. Annual weighing of the 20 sludge-filled STSCs in the T Plant canyon is required to monitor the water level in each STSC to determine if it is within



Workers at W&FM Project recently broke ground on a capsule storage area that will hold concrete casks containing nearly 2,000 cesium and strontium capsules currently in underwater storage at WESF.

operating limits or if additional water needs to be added. There are six additional STSCs to be weighed this calendar year.

- **Soil and Groundwater Remediation Project (S&GRP):** The S&GRP team continued essential mission-critical operations and a partial, phased resumption of work for high priority, low-risk activities in compliance with the RL-directed PSWO. Sampling crews completed all of the required *Resource Conservation and Recovery Act of 1976* groundwater sampling that was delayed by the PSWO and drilling activities resumed on four of six drilling campaigns delayed by the PSWO. Pump and Treat Operations continued progress toward the goal of 2.2 billion gallons of groundwater treated for fiscal year (FY) 2020. The project supported completion of the *Hanford Federal Facility Agreement and Consent Order* Milestone M-024-71-T01, *Conclude Discussions of Well Commitments Initiated Under M-024-58* on July 23, 2020 (due August 1, 2020).
- **K Basins Operations (KBO):** At KBO, essential mission-critical operations were continued in compliance with the RL-directed PSWO. The CHPRC Hazard Review Board (HRB) met and approved, with comments, the plan for the Settler Vessel Video Borescope Inspection. The KBO team worked on resolution of the HRB comments. Several walk downs were performed in the K West Fuel Storage Basin to facilitate progress on drafted work packages, including Integrated Water Treatment System strainer and hose removal, fuel specimen conditioning and basin sand filter sample collection. Testing of fabricated vertical pipe container components was completed and identified the need to make modifications to the funnel to address deflection when the unit is picked up. The auger demonstration contractor completed fabrication of the special auger tool and initiated shipment from Germany. The 100K Soil Remediation project resumed overburden removal at 100-K-60 on July 7, 2020. Approximately 10,175 m<sup>3</sup> of clean material was removed in July from overtop the 100-K-60 pipeline waste site and stockpiled for use as future backfill material. A final post-excavation civil survey was performed at the 116-KE-2 waste site and will be used in the preparation of the verification sampling design. The remediation design for the 100-K-79:7 and 100-K-99 waste sites has been updated and approved.
- **River Risk Management Project:** The project continued essential mission-critical operations and entered Phase 1 resumption of work for high priority, low-risk activities in compliance with the RL-directed PSWO, as well as continued use of temporary alternate work locations for portable work as appropriate. Preparations continued for implementation of social distancing for subcontractors' staff and the Radiological Control organization. A contract was established with Pacific Northwest National Laboratory to perform radiological testing of the acrylamide grouting that will be used for soil stabilization during B Cell excavation activities. A team started to finalize training for future returning workers in support of work evolutions in contamination area (CA)/HCAs. Equipment procurement continued for the cell dams, universal cutting tool, waste boxes, modified airlock rail system and the B Cell 10-ton crane. Integrated Disposal Facility construction subcontractors remobilized as part of the phased resumption of work plan. The remobilized subcontractors made progress on the installation of security fencing and the trenching and installation of the sewer and potable water lines.
- **Central Plateau Risk Management (CPRM) Project:** The project continued essential mission-critical operations in compliance with the RL-directed PSWO. At the Reduction-Oxidation (REDOX) canyon, crews returned to implement social distancing configurations in MO-2191 and continue the setup of MO-2195, including construction of the tunnel from 202A and setup of personal contamination monitors. Construction of the access road and new REDOX Container Transfer Area was completed, as well as excavation of the new footprint and setting of forms of the future slab for the temporary REDOX ventilation system. At B Plant, the ventilation system was returned to service, and electrical investigations and isolations were restarted to support moving the 224B Facility to a cold and dark condition. Operation crews initiated the backlog of preventative maintenance, focusing on lapsed calibrations to enable returning the canyon ventilation systems to service. The Z Crib stabilization offsite mockup activities were completed. Crews also resumed vegetation management at the Waste Information Data System sites near the Waste Treatment Plant.

- **West Area Remediation Project (WARP):** The WARP team continued planning activities for hazard material removal and electrical and mechanical isolation work packages related to planned demolition of the PFP south trailer village, 234-5Z-BA, 234-5Z-BE and 216-ZP-1 structures. Crews also began debris removal and setup around 234-5Z-BA, 234-5Z-BE and 216-ZP-1. Following discussions with RL, union leadership and regulators, work began to down post an area in the expanded PFP HCA from a CA/Airborne Radiation Area to a CA only. With higher-risk work at PFP currently on hold as the Hanford Site continues a phased remobilization to return to work, a temporary reconfiguration of some radiological boundaries to accommodate lower-risk activities within and near the PFP footprint is necessary. The activities follow the Hanford Site's work resumption plan, prioritizing lower-risk work that will not strain limited personal protective equipment. The risk reduction activities in the down posted area will include preparation for the deactivation and remediation of various support facilities as well as the stabilization of three underground structures with engineered grout.

The President's Zero Accident Council (PZAC) meeting for July was hosted virtually by S&GRP. The three main topics of the agenda were:

- Prevent hot car deaths.
- Boating safety.
- Intersection of cancer and COVID-19.

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

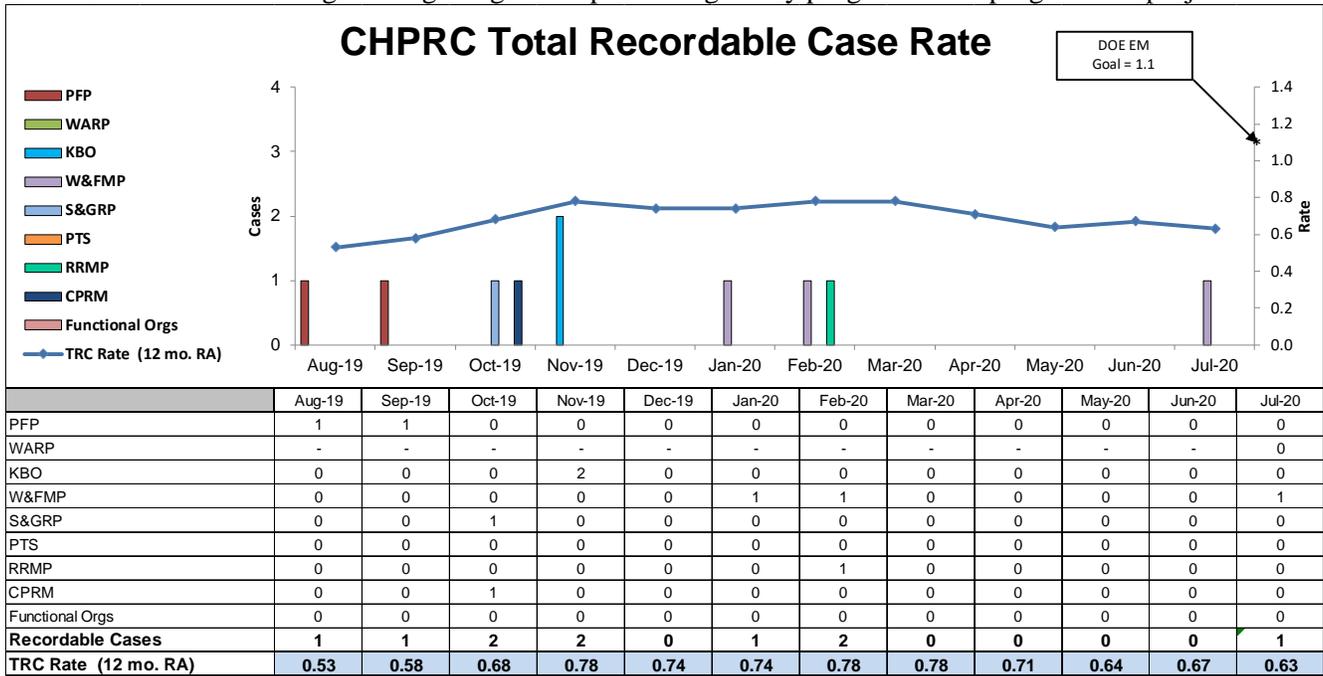
- Hot vehicle safety.
- Water conservation.
- Creepy crawly pests.
- VPP questioning attitude.

*Weekly Safety Tailgate* briefing packages were published to communicate relevant topics and safety information to the workforce:

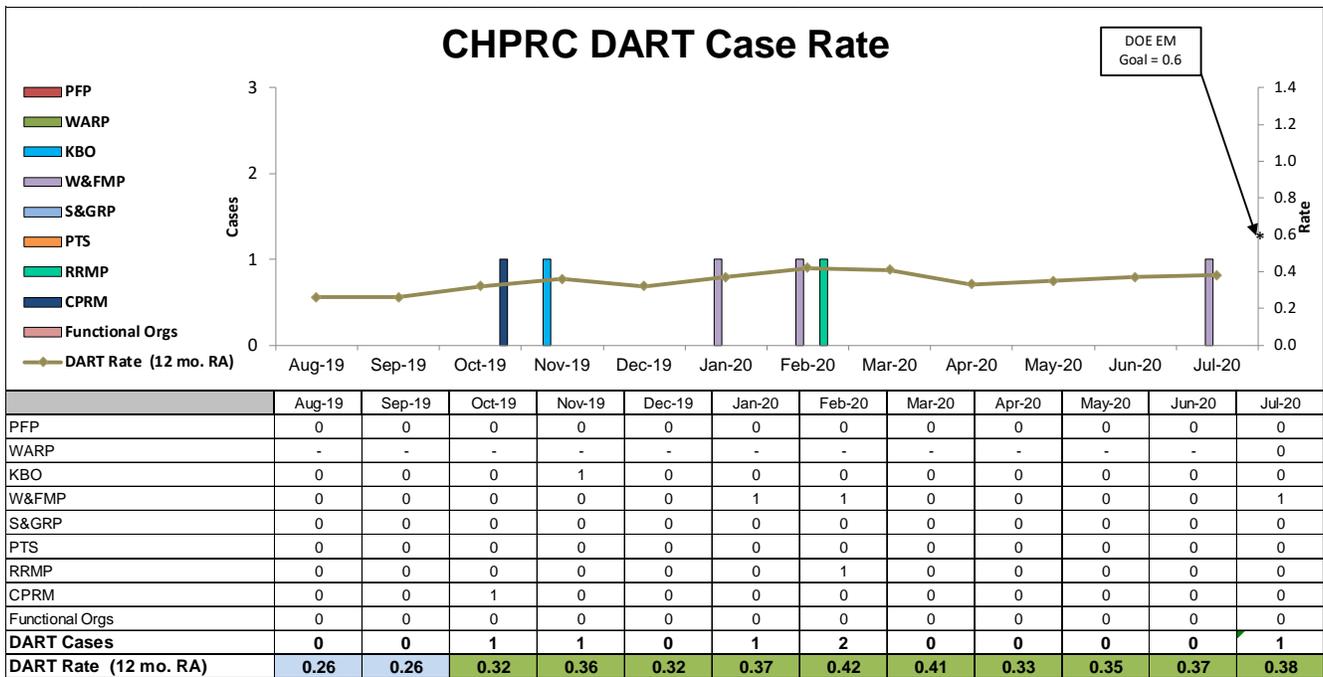
- Four Lessons Learned:
  - OPEXShare: INL-2020-0017 Use Peer Checking to Avoid Adverse Consequences – Idaho National Laboratory.
  - OPEXShare: LANL-2020-2379 Roll-up Doors Can Present Hazards to Migratory Birds.
  - OPEXShare: 2020-LLNL-POST-812469 Avoiding Line-of-Fire Incidents.
  - OPEXShare: 2020-RL-HNF-65193 Understanding Human Failure.
- Injuries.
- Weekly ethics moments.
- Vehicle events.
- Return to work safely.
- Hand sanitizer recall.
- Myths - vs- facts.
- Mandatory mask rule.
- Face covering reminders.
- Hand injuries.
- Hand injury prevention.
- The heat is on!
- Heat stress information.
- Summer safety 2020.
- New! Hanford learning management system.
- Respiratory protection.

## TARGET ZERO PERFORMANCE

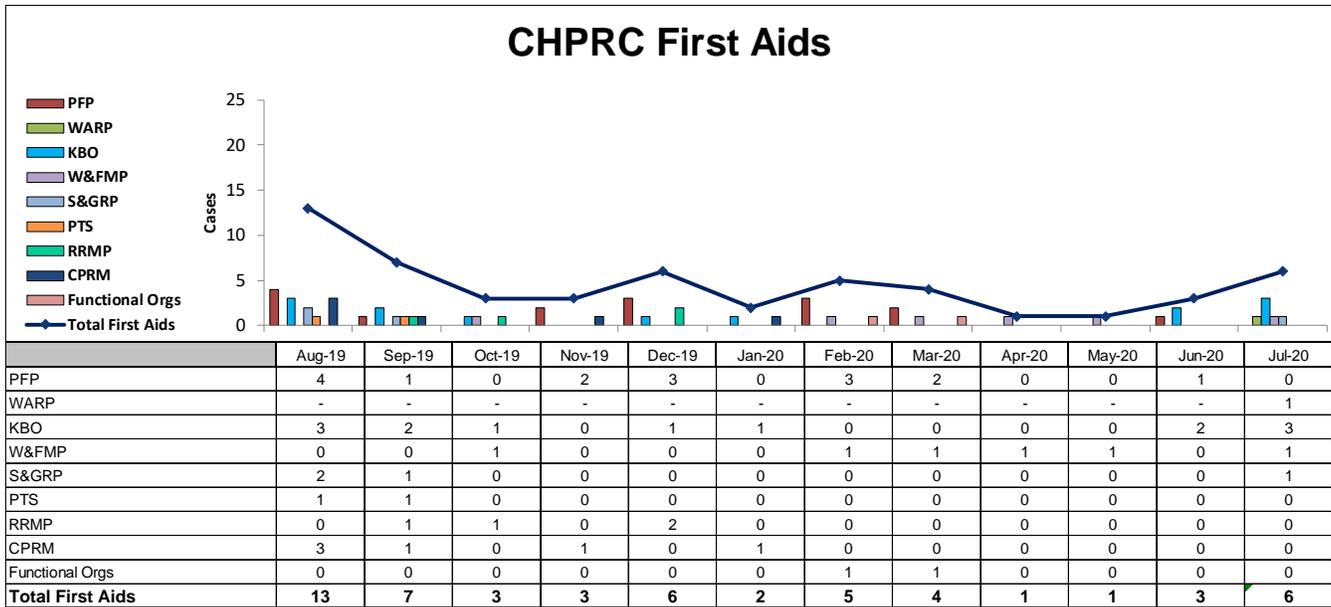
CHPRC continued focusing on integrating and implementing safety programs in all program and project areas.



Total Recordable Injury Case (TRC) Rate: The 12-month rolling average TRC rate of 0.63 is based on a total of 10 recordable injuries. July had one reported Occupational Safety and Health Administration Recordable case.



Days Away, Restricted or Transferred (DART) Workdays Case Rate: The 12-month rolling average DART rate of 0.38 is based upon a total of six days away cases. July had one reported DART case. The DART rate has increased due to a decrease in working hours during mission critical operations.



First Aid Case Summary: CHPRC reported six First Aid cases in July. The contributors were three cuts/lacerations/punctures, two miscellaneous (burns, rashes, repetitive motion, etc.) and one undescribed/precautionary injury.

## KEY ACCOMPLISHMENTS

### Projects

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

### Project Services and Support

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

## MAJOR ISSUES

### Projects

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

### Project Services and Support

#### 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 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 July 22, 2020, CHPRC received Contract Modification 747, extending the PSWO through September 30, 2020, unless the contracting officer directs an earlier date. The PSWO noted that CHPRC would have 30 days following termination of the PSWO to assert its rights for an equitable adjustment. On May 22, 2020, the RL contracting officer approved CHPRC’s request for submission of the Request for Equitable Adjustment (REA) 90 days after

the end of the PSWO. 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 Section F “Deliveries or Performance”, F.3 FAR 52.242-15, Stop Work Order (August 1989) – Alternative (April 1984)

### **Corrective Action**

CHPRC will notify the RL contracting officer, in a timely manner, of events, incidents or circumstances causing grounds to submit an REA. Following receipt of RL’s PSWO direction, a PSWO 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. 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.

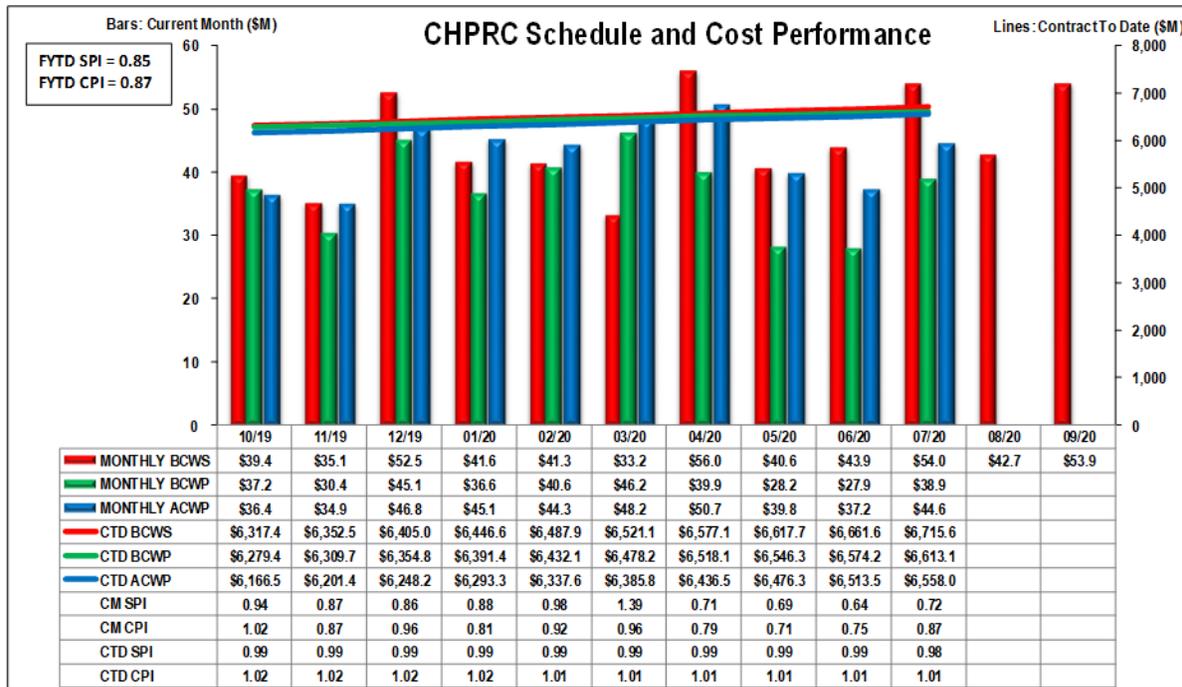
### **Status**

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 mission-critical operations 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 developed. 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. 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 July include the following:

- On July 22, 2020, CHPRC received Contract Modification 747, extending the PSWO through September 30, 2020, unless the contracting officer directs an earlier date.

In compliance with state and federal government COVID-19 guidance, and as required by or in consequence of the PSWO, CHPRC has taken 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	BAC	EAC	Variance	
	BCWS	BCWP	ACWP	Schedule	Cost	BCWS	BCWP	ACWP	Schedule	Cost				
RL-0011 - Nuclear Materials Stab & Disp PFP	-	-	1.5	-	(1.5)	1,143.6	1,129.9	1,242.3	(13.7)	(112.5)	1,143.6	1,254.7	(111.1)	
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	21.5	15.6	13.8	(5.9)	1.8	1,639.5	1,618.0	1,534.7	(21.5)	83.4	1,675.3	1,592.6	82.7	
RL-0030 - Soil & Water Rem-Grndwtr/Vadose	12.0	8.7	8.3	(3.3)	0.4	1,735.1	1,712.0	1,663.3	(23.1)	48.8	1,755.1	1,703.4	51.7	
RL-0040 - Nuc Fac D&D - Remainder	8.3	5.8	9.7	(2.5)	(3.9)	619.4	600.1	598.5	(19.3)	1.6	638.1	657.8	(19.7)	
RL-0041 - Nuc Fac D&D - RC Closure Project	11.7	8.5	11.0	(3.2)	(2.5)	786.9	762.2	763.1	(24.7)	(0.9)	808.2	809.6	(1.3)	
RL-0042 - Nuc Fac D&D - FFTF Project	0.4	0.3	0.3	(0.1)	(0.0)	31.5	31.2	26.4	(0.2)	4.9	32.3	27.6	4.8	
(Values are rounded to the nearest \$0.1M)	<b>Total</b>	<b>54.0</b>	<b>38.9</b>	<b>44.6</b>	<b>(15.1)</b>	<b>(5.7)</b>	<b>6,715.6</b>	<b>6,613.1</b>	<b>6,558.0</b>	<b>(102.5)</b>	<b>55.1</b>	<b>6,812.2</b>	<b>6,775.4</b>	<b>36.8</b>

### Performance Summary

CHPRC continues to track completion of the contract within budget. Currently, a variance at completion of the contract of \$36.8 million is projected, with an additional \$48.2 million of management reserve (MR) for a total positive variance of \$85.0 million. For July, the project was 27.9 percent behind schedule and 14.5 percent over planned cost. Contract to date, the project was 1.5 percent behind schedule and 0.8 percent under planned cost.

The current month 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 essential mission-critical 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 Washington State phased reopening by county. Non-portable work activities are work that cannot be performed in a remote manner (e.g., telework from home). 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 segregated. The method for earning performance for discrete scope is based on physical progress in the field, therefore 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	
<b>RL-0011</b>	Nuclear Materials Stabilization and Disposition	43.6	39.7	3.8
<b>RL-0012</b>	Spent Nuclear Fuel Stabilization and Disposition	0.1	(0.1)	0.1
<b>RL-0013</b>	Waste and Fuels Management Project	202.2	184.0	18.3
<b>RL-0013</b>	Management of Cesium and Strontium Capsules	14.3	1.2	13.1
<b>RL-0030</b>	Soil, Groundwater and Vadose Zone Remediation	117.3	105.2	12.1
<b>RL-0040</b>	Nuclear Facility D&D, Remainder of Hanford	93.3	90.2	3.1
<b>RL-0041</b>	Nuclear Facility D&D, River Corridor	150.9	145.0	5.9
<b>RL-0042</b>	Fast Flux Test Facility Closure	4.8	3.5	1.3
<b>Total Fiscal Year Spending Forecast</b>		<b>626.4</b>	<b>568.6</b>	<b>57.7</b>

#### Funds/Variance Analysis

FY2020 overall projected funding reduced from \$626.8 million to \$626.4 million from last month. A net zero reallocation of funding was made which reduced projected funding for PBS RL-0012 by \$0.5 million and PBS RL-0030 by \$8.6 million, and increased projected funding for PBS RL-0011 by \$9.1 million. RL-0013 funding was reduced \$0.5 million by RL to process an Inter-Entity Work Order for the purchase of Solid Waste Boxes. The spending forecast of \$568.6 million reflects an overall reduction of \$13.7 million from last month, primarily driven by the slower-than planned resumption of work in response to the PSWO associated with COVID-19 pushing work scope previously forecast to complete in FY2020 into FY2021.

## BASELINE CHANGE REQUESTS

In July, CHPRC approved and implemented three baseline change requests (BCR) into the performance measurement baseline (PMB). One of the three BCRs impacted the PMB budget. The change request is identified in the following table:

Change Request#	Title	PBS	Summary of Change
BCR-040-20-012R0	<i>Incorporate Preparation of B Plant CERCLA Documents</i>	RL-0040	This BCR incorporates in-scope, unplanned work to initiate development of required <i>Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)</i> removal action documentation for the B Plant Complex, as well as deduct scope associated with the characterization of the hotcells in 224B. This BCR did not change the PMB value.
BCR-PRC-20-021R0	<i>Mod 745 Implementation - Fee Adjustment</i>	RL-0040 RL-0041	This BCR documents the revision of FY2020 available fee established by Plateau Remediation Contract (PRC) Modification 745, revision to Table B.4. This BCR decreased the PMB by \$6,900.0K.
BCRA-PRC-20-020R0	<i>HPIC Updates July 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 July 2020 performance period prior to archive. These changes include new work packages, cost account charge number requests and implementing code changes as documented in the HPIC forms. This BCR did not change the PMB value.
The allocated (distributed) budget decreased \$6,900.0K in July.			

### Undistributed Budget (UB) Activity

BCR Number	Title	PBS	Fiscal Year	UB
N/A	N/A	N/A	2020	N/A

There was no change to UB in July.

### Management Reserve (MR) Activity

BCR Number	Title	PBS	Fiscal Year	MR
N/A	N/A	N/A	2020	N/A

There was no change to the MR in July.

### Fee Activity

BCR Number	Title	PBS	Fiscal Year	Fee
BCR-PRC-20-021R0	<i>Mod 745 Implementation - Fee Adjustment</i>	RL-0040 RL-0041	2020	-\$6,900.0K

There was decrease to the Fee in July.

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.

**July 2020 Summary of Changes (\$M)**

	FY2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2014-2018	FY2019	FY2020	Total
<b>June 2020 MR Totals</b>										
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	11.3	11.3
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
<b>Total</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>48.2</b>	<b>48.2</b>
<b>July 2020 MR Changes/Utilization</b>										
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
<b>Total</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>July 2020 MR Totals</b>										
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	11.3	11.3
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
<b>Total</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>48.2</b>	<b>48.2</b>

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

	FY 2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FYs 2014-2018	FY2019	FY2020	Contract Period Total	Total PMB
<b>June 2020 Estimate</b>											
PMB	3,391.5	391.7	471.3	504.8	485.0	470.6	2,323.5	563.1	534.2	6,812.2	6,812.2
MR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.2	48.2	48.2
Fee	155.5	14.3	14.5	27.8	10.6	18.9	86.1	36.5	27.0	305.1	305.1
<b>Total</b>	<b>3,547.0</b>	<b>406.0</b>	<b>485.8</b>	<b>532.6</b>	<b>495.6</b>	<b>489.5</b>	<b>2,409.6</b>	<b>599.5</b>	<b>609.4</b>	<b>7,165.5</b>	<b>7,165.5</b>
<b>July 2020 Change</b>											
<b>PMB</b>											
Change to PMB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>MR</b>											
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
<b>Fee</b>											
Change to Fee	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-6.9	-6.9	-6.9
<b>Total Change</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-6.9</b>	<b>-6.9</b>	<b>-6.9</b>
<b>July 2020 Estimate</b>											
PMB	3,391.5	391.7	471.3	504.8	485.0	470.6	2,323.5	563.1	534.2	6,812.2	6,812.2
MR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.2	48.2	48.2
Fee	155.5	14.3	14.5	27.8	10.6	18.9	86.1	36.5	20.1	298.2	298.2
<b>Total</b>	<b>3,547.0</b>	<b>406.0</b>	<b>485.8</b>	<b>532.6</b>	<b>495.6</b>	<b>489.5</b>	<b>2,409.6</b>	<b>599.5</b>	<b>602.5</b>	<b>7,158.6</b>	<b>7,158.6</b>

## SELF-PERFORMED WORK

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

Contract-to-Date Actual Awards & Mods (\$M) 10/1/2008 - 7/31/2020					
Reporting Category					
	\$ Value	%	Goal %		
SB	\$1,759.00	56.94%	49.3%	PRC clause H.20b small business requirement ≥ 17% of CHPRC Contract Price performed by SB.	
SDB	\$334.60	10.83%	8.2%		
SWOB	\$310.78	10.06%	7.5%		
HUB	\$104.73	3.39%	2.2%		
VOSB	\$270.86	8.77%	3.5%	CHPRC Contract Value:	\$7,150.78
SDVO	\$177.05	5.73%	1.3%	SB actual:	\$1,759.00
NAB	\$111.75	3.62%	N/A	SB Performed %:	24.60%
Large	\$827.06	26.77%	N/A	PRC clause H.20a max self performed requirement ≤ 65% of Contract Price Self Performed	
GOVT	\$5.92	0.19%	N/A		
GOVT CONT	\$483.23	15.64%	N/A	CHPRC Contract Value:	\$7,150.78
EDUCATION	\$0.17	0.01%	N/A	CHPRC Self Performed:	\$4,354.95
NONPROFIT_	\$4.48	0.14%	N/A	CHPRC Self Performed %:	60.90%
FOREIGN	\$9.60	0.31%	N/A		
<b>Total</b>	<b>\$3,089.46</b>	<b>100.00%</b>	<b>N/A</b>		

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 90 percent of the total dollars arise from service and staffing contracts and contract amendments, with 6.9 percent of the remaining expenditures arising from PCard purchases and 3.9 percent from the balance in purchase orders for materials and equipment.
3. Data are summarized by business category (e.g., 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

July 2020  
CHPRC-2020-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

In July, the Plutonium Finishing Plant (PFP) Closure Project team continued essential mission-critical operations 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). Essential mission-critical operations consisted of a survey of PFP radiological boundaries, applying soil fixative to the PFP demolition area and performing equipment maintenance. Workers also resumed shipments of previously loaded radioactive waste. Twenty-six containers of final-phase demolition debris were shipped to the Environmental Restoration Disposal Facility (ERDF) for permanent disposal, including 20 Contaminated Equipment – Special Package Authorization shipments of containers of Plutonium Reclamation Facility (PRF) debris.

### Key Metrics

<i>Key Performance Indicators</i>	<i>Current Month</i>	<i>Contract to Date</i>
<b>COMPLETE</b> Glovebox/Hood Removed or Dispositioned in Place	0	232 gloveboxes/hoods
<b>COMPLETE</b> KPP Rooms/Areas Ready for Demo	0	72 rooms/areas
<b>COMPLETE</b> Asbestos/Asbestos Containing Material Removed	0	35,827
<b>COMPLETE</b> Process Vacuum Piping Dispositioned	0	7,231 feet
<b>COMPLETE</b> Process Transfer Line Dispositioned	0	1,525 feet
<b>COMPLETE</b> Pencil Tank Units Removed (Shipped)	0	196 pencil tank units
<b>COMPLETE</b> Buildings Ready for Demo	0	68 structures
Buildings Demolished or Removed	0	67 structures
Non-Radioactive Waste Shipped	0	89.8 m <sup>3</sup>
Transuranic/Transuranic Mixed (TRU/TRU-M) Shipped	0 m <sup>3</sup>	5,016 m <sup>3</sup>
Low-level Waste (LLW)/Mixed (M)LLW Shipped	182 m <sup>3</sup>	23,458 m <sup>3</sup>

### EMS Objectives and Target Status

<b>Objective #</b>	<b>Objective</b>	<b>Target</b>	<b>Due Date</b>	<b>Status</b>
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	16	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 essential mission-critical operations and maintained in that configuration. Essential mission-critical operations consists of the completion of required S&M activities to protect government property and maintain safety and environmental compliance. These efforts included surveying PFP radiological boundaries, applying fixative to the PFP demolition area and performing equipment maintenance.
- Shipped 26 containers of final-phase demolition debris to ERDF for permanent disposal, including 20 containers of PRF rubble debris.
- Crews worked on the disposition of legacy waste, including neutralizing and re-packaging batteries for disposition.

## MAJOR ISSUES

### Issue

The project's fiscal year (FY) 2020 forecast reflects spending approximately \$5.4 million more than the entire allotted carryover balance. Additional funding is required in FY2020.

### Corrective Action

Resolve funding shortfall. Personnel assigned to the PFP Project were shifted to support the West Area Remediation Project (WARP) in RL-0040 when they returned to work in 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 reduce the near-term PFP Project spending rate until this issue is resolved.

**Status**

RL reallocated an additional \$9.2 million (\$500 million from RL-0012, and \$8.7 million from RL-0030) in July, increasing FY2020 funding from \$34.4 million to \$43.6 million, which is sufficient for the current spending forecast of \$39.8 million. This issue is considered closed and will not be reported on in the future.

**RISK MANAGEMENT STATUS**

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

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

- Increased Confidence
- No Change
- Decreased Confidence

	Unmitigated Risk Impacts	Assessment			Comments									
		Month	Trend											
<b>RL-0011</b>														
<b>Explanation of major changes to the project monthly stoplight chart:</b> No major changes to the stoplight chart in July.														
<b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)														
PFP-P5-007: Delay of PRF Debris Load Out	The loadout of PRF debris is delayed.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$0, 32 days				<b>Risk Event:</b> 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.  <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="text-align: center;">Risk Recovery Action(s)</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>Communicate PRF loadout options with RL.</td> <td style="text-align: center;">Ongoing</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>Encourage additional worker involvement.</td> <td style="text-align: center;">Ongoing</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table> <b>Recovery Action Assessment:</b> No major changes in July. 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. Loadout of PRF debris is on hold due to the PSWO, with resumption expected in October 2020.	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												
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)														
No critical risks identified in July.														
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)														
No high threat risks identified in July.														
<b>FY2020 Key Risks</b>														
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.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Low (10% to 25%) <b>Worst Case Impacts:</b> \$0, 20 days				<b>Risk Trigger:</b> 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.  <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="text-align: center;">Mitigation Action(s)</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td style="text-align: center;">N/A</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table> <b>Mitigation Assessment:</b> No major changes in July. There were no weather events that impacted the project in July.	Mitigation Action(s)	FC Date	%	None identified at this time.	N/A	N/A			
Mitigation Action(s)	FC Date	%												
None identified at this time.	N/A	N/A												

Unmitigated Risk Impacts	Assessment		Comments															
	Month	Trend																
<b>RL-0011</b>																		
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.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$0, 16 days			<b>Risk Trigger:</b> 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> <b>Mitigation Assessment:</b> No major changes in July. 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																
<b>Unassigned Risks</b> (Pending ownership of identified threats/opportunities)																		
No unassigned risks identified in July.																		

## 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	1.5	0.0	0.0%	(1.5)	0.0%

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: (-\$1.5M/0.0%)**

The CM 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 essential mission-critical 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)

WBS 011/ RL-0011 Nuclear Matl Stab & Disp PFP	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Estimate to Complete (ETC)	Variance at Completion (VAC)
Total	1,143.6	1,129.9	1,242.3	(13.7)	-1.2%	(112.5)	-10.0%	1,143.6	1,254.7	12.4	(111.2)

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: (-\$112.5M/-10.0%)

The negative CTD cost variance is primarily a result of unplanned costs to support implementation of PFP schedule efficiency initiatives (i.e., foaming, Perma-Fix Northwest [PFNW] size reduction support, PremAire Breathing System); increased training costs of additional PFP radiation control technicians (RCTs) and deactivation and decommissioning (D&D) workers; additional resources to recover schedule from asbestos-removal activities and support the unplanned asbestos removal (about 10,000 feet); unplanned shipping materials (e.g., 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 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 the continuation of essential mission-critical 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 Building entries. These reductions were the result of fewer fieldwork team members required to perform hands-on work in the 242-Z Building due to the confined space.

In addition, recognized efficiencies contributed to the negative variance offset, including crews completing process vacuum removal in the 291-Z Building with reduced effort; characterization results indicating lower levels of holdup, allowing for accelerated piping removal; isolations performed more efficiently by disconnecting the main electrical power from outside the 291-Z Building 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): (-\$111.2M/-9.7%)**

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 the 234-5Z Building, 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	43.6	39.7	3.8

Numbers are rounded to the nearest \$0.1 million.

**Funds/Variance Analysis**

The FY2020 projected funding of \$43.6 million reflects an increase of \$9.1 million from June 2020 reporting. The sources of the funding increase was a net zero reallocation of funding, which reduced FY2020 projected funding for project breakdown structure (PBS) RL-0012 by \$0.5 million and PBS RL-0030 by \$8.6 million and increased PBS RL-0011 by \$9.1 million.

**Critical Path Analysis**

The PFP critical path schedule begins with the completion of PRF loadout, which is forecast to occur by December 8, 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 March 10, 2021.

## MILESTONE STATUS

The following table is a one-year look ahead to 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		12/8/2020	Work resumption is currently anticipated for late September due to a phased resumption approach and to conserve PPE in response to 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 C

## Solid Waste Stabilization and Disposition (RL-0013)

**CH2MHILL**  
**Plateau Remediation Company**  
*a Jacobs company*



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

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

M. A. Wright  
Vice President for  
Project Technical Services

July 2020  
CHPRC-2020-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

In the July reporting period (June 22 – July 26, 2020), the Waste and Fuels Management Project (W&FMP) and the River Risk Management Project continued essential mission-critical operations 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 following items were accomplished in July:

- The Management of Cesium and Strontium capsule (MCSC) Project, W-135, *Waste and Encapsulation and Storage Facility (WESF) Modifications*, Line Item project continued to work on DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, Critical Decision (CD)-2 and CD-3 deliverables. The Capsule Storage Area (CSA) Project continued construction of the capsule storage pad. Fabrication of Cask Storage System (CSS) transfer and ancillary equipment continued for future installation in WESF and the mockup facility. Detailed measurements inside G Cell were taken to support Maintenance and Storage Facility (MASF) mockup preparations.
- At WESF, the crew completed the decontamination of the window frame (i.e., fixed high contamination area [(HCA)]) and reinstallation of gasket material on the G Cell window refurbishment with the assistance of the vendor.
- At the Central Waste Complex (CWC), nondestructive assay (NDA) on four waste packages in Outside Storage Area A was conducted.
- At T Plant, weighing of Sludge Treatment and Storage Containers (STSCs) containing sludge from the 105K West Reactor Basin in two cells was completed, including the first annual STSC weighing for Cell 13L. Annual weighing of the 20 sludge-filled STSCs in the T Plant canyon is required to monitor the water level in each STSC to determine if it is within operating limits or if additional water needs to be added. There are six additional STSCs to be weighed this calendar year (CY).
- Construction subcontractors were remobilized to the Integrated Disposal Facility (IDF) and made progress on trenching and installation of the sewer and potable water lines and installation of security fencing.

## EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
20-EMS-WFMP-OBJ1-P1	Complete installation of the 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 <sup>3</sup> 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 <sup>3</sup> of legacy TRU/TRUM waste.	9/30/2020	76%
20-EMS-RRMP-OBJ1-P1	Track maintenance/recycling activities at the Environmental Restoration Disposal facility (ERDF) (e.g., used oil recycling, tires, batteries and product drums, etc.)	On a quarterly basis, track the maintenance recycling activities of the ERDF subcontractor and CH2M HILL Plateau Remediation Company (CHPRC) transportation organization.	9/30/2020	75%

## TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred (DART)	1	3*	* 1 DART, Project Technical Services (PTS) in support of RL-0013.  * 1 DART, Mission Support Alliance, LLC in support of RL-0013.  7/28/2020 - Employee was picking up a survey bag with instruments in it and felt a pop in the wrist. There was no mentionable pain at the time, but as work went on, the pain increased. Employee later informed manager that it was hurting and was taken to HPM Corporation (HPMC). (25539).
Total Recordable Injuries	1	1	7/28/2020 - Employee was picking up a survey bag with instruments in it and felt a pop in the wrist. There was no mentionable pain at the time, but as work went on, the pain increased. Employee later informed manager that it was hurting and was taken to HPMC. (25539)
First Aid Cases	1	8	7/1/2020 - While verifying the tag was attached to the correct component, the employee had to reach around the component to adjust the tag in order to read it when the employee caught their thumb on a sharp object, which caused a scratch that started bleeding. Employee was transported to HPMC and returned to work without restrictions. (25527).
Near Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### Waste and Fuels Management Project

#### 13.01 Project Management

- The Washington State Department of Ecology (Ecology) 45-day public comment period for the Consent Agreement and Final Order Closure Plan Submittal 1 and Submittal 2 (i.e., 211-T Pad, 277-T Building, 271-T Cage, 2401-W Waste Storage Building, 277-T Outside Storage Area, 221-T Railroad Cut, 221-T Sand Filter Pad) began June 8, 2020, and concluded July 24, 2020. CHPRC reviewed the documents and consolidated CHPRC and RL comments, which were submitted to Ecology on July 23, 2020.
- On July 21, 2020, CHPRC distributed the Solid Waste Operations Complex (SWOC) Part B Permit building emergency plans for Low-Level Burial Ground (LLBG) 31-34-94, CWC Waste Receiving and Processing Facility (WRAP), and T Plant for joint CHPRC/RL review. These versions incorporated Ecology comments.
- On July 21, 2020, CHPRC distributed the Revision 9 LLBG Green Islands building emergency plan for joint CHPRC/RL review.

**13.02 Capsule Storage and Disposition**

- Completed the decontamination of the window frame (fixed HCA) and reinstallation of gasket material on the G Cell window refurbishment with the assistance of the vendor.
- Completed 47 preventative maintenance (PM) packages.

**13.03 Canister Storage Building (CSB)**

- Completed 26 PM packages.

**13.06 TRU Repackaging**

- Repackaging of 435.8m<sup>3</sup> TRU/TRUM waste fiscal year to date (FYTD) was completed as of the end of June. No change for July.

**13.07 Waste Receiving and Processing**

- Completed 227 surveillances and 13 PM packages.

**13.08 T Plant**

- At T Plant, weighing of STSCs containing sludge from the 105K West Reactor Basin in two cells was completed, including the first annual STSC weighing for Cell 13L. Annual weighing of the 20 sludge filled STSCs in the T Plant canyon is required to monitor the water level in each STSC to determine if it is within operating limits or if additional water needs to be added. There are six additional STSCs to be weighed this CY.
- Completed 368 surveillances and 37 PM packages.

**13.09 Central Waste Center and Low-Level Burial Grounds**

- Performed NDA on four waste packages in Outside Storage Area A.
- Completed 351 surveillances and 20 PM packages.

**13.16 Offsite Spent Nuclear Fuel Disposition**

- Maintained coordination of offsite spent nuclear fuel disposition.

**13.21 Mixed-Waste Disposal Trenches**

- Completed 142 surveillances.

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

- The WESF Modifications, Line Item project continued to work on DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, CD-2 and CD-3 deliverables.
- Fabrication of CSS transfer and ancillary equipment continued for future installation in WESF and the Mockup Facility. Detailed measurements inside the WESF G Cell were taken to support MASF mockup preparations.
- With the support of PTS, the following progress was made on MCSC subproject construction activities:
  - Completed excavation and backfilling with engineered fill of the Capsule Storage Pad (CSP) and Operating Pad (OP).
  - Completed potholing utilities for the installation of the raw water line and clearing and grubbing of the installation area west of the railroad tracks.
  - Continued steel construction of the G Cell mockup at MASF.

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

- Received 1,116 tons of waste for disposal.
- Received 31,343 tons of waste for disposal FYTD. Any corrections in previous months are reflected in this total.
- Performed maintenance and inspections on 133 containers.
- Performed quarterly heating, ventilation and air conditioning inspections.

### 13.12 Integrated Disposal Facility

- Care and Custody
  - Storm event inspections resumed on June 23, 2020, with limited Phase 1 remobilization of personnel. Seven storm event inspections were performed this month.
  - Quarterly leachate sampling was completed.
- IDF Operational Readiness
  - Construction subcontractors were remobilized to IDF and made progress on trenching and installation of the sewer and potable water lines and installation of security fencing.
  - Key Performance Goal, *Complete Comment Resolution for the IDF Final Hazard Categorization*, was successfully completed on July 17, 2020, documented via RL transmittal DOE-ASMT-2020-5145, Closed Review Comment Record for the Final Hazard Categorization of the Integrated Disposal Facility.

## 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 WIPP. The configuration would also mitigate or eliminate the risk and additional cost for long-term management of these containers.

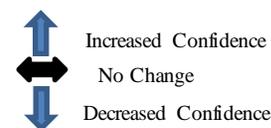
### Status

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 FY2020 TRU commercial repackaging, allowing shipments to Perma-Fix Northwest for repackaging to continue throughout the year.

## RISK MANAGEMENT STATUS

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

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



Risk Title	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
<b>RL-0013/WBS-013</b>													
<b>Explanation of major changes to the project monthly spotlight chart:</b> Risk WSD-W135-37, <i>MASF Differing Conditions</i> , was removed from the spotlight chart as it is no longer realized. Risks WSD-CSS-015, <i>CSS Design Changes</i> , and WSD-W135-38, <i>CSS Equipment Design Changes Impact Mockup</i> , were added to the spotlight chart as realized risks.													
<b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>													
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.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$0, 48 days	<span style="color: red;">●</span>	↔	<b>Risk Event:</b> 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> <b>Recovery Action Assessment:</b> No significant changes in July. 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.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Very likely (>90%) <b>Worst Case Impacts:</b> \$0, 96 days	<span style="color: red;">●</span>	↔	<b>Risk Event:</b> 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> <b>Recovery Action Assessment:</b> No significant changes in July. 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 non-approval of the permit or rework, causing schedule impacts to the project.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Very likely (>90%) <b>Worst Case Impacts:</b> \$0, 96 days	<span style="color: red;">●</span>	↔	<b>Risk Event:</b> 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> <b>Recovery Action Assessment:</b> No significant changes in July. 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										
<b>RL-0013/WBS-013</b>													
WSD-CSA-018: CSA Design Errors and Omissions	CSA construction is impacted by errors and omissions in the issued design documents. Impacts could be to safety, quality, schedule and/or cost.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$650K, 24 days	●	↔	<p><b>Risk Event:</b> The new CSA fire protection raw water line requires installation of a new Reduced-Pressure Backflow-Prevention Assembly (RPBA) at WESF. The RPBA was omitted from the original design. The omission was identified by the Hanford Fire Department during a supplemental review of the design in connection with a water system tie-in permit.</p> <table border="1"> <thead> <tr> <th>Risk Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Revise the design to include an RPBA facility.</td> <td>8/28/20</td> <td>50</td> </tr> <tr> <td>Construct new RPBA facility.</td> <td>12/24/20</td> <td>0</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b> The design will be revised to address the omission (i.e., to include an RPBA facility), and then the CSA contractor will construct the new facility. This risk is forecast to remain realized through CY2020.</p>	Risk Recovery Action(s)	FC Date	%	Revise the design to include an RPBA facility.	8/28/20	50	Construct new RPBA facility.	12/24/20	0
Risk Recovery Action(s)	FC Date	%											
Revise the design to include an RPBA facility.	8/28/20	50											
Construct new RPBA facility.	12/24/20	0											
WSD-CSS-006: Fabrication of the Equipment from the Contractor	Fabrication of critical items for the long-term storage of the Cs and Sr capsules does not go exactly as planned, resulting in design changes and rework.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$5M, 144 days	●	↔	<p><b>Risk Event:</b> Fabrication of required equipment and items does not go according to schedule, requiring redesign or additional components that will impact the project's cost and schedule baseline.</p> <table border="1"> <thead> <tr> <th>Risk Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Look for more efficient ways to perform Automated Weld System (AWS) gantry seismic design.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>AWS vendor to provide portions of design for review as available.</td> <td>9/30/20</td> <td>0</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b> A design change for the AWS was proposed and accepted by CHPRC, which would minimize crane movements of the AWS and simplify operation. Implementation of this change requires seismic considerations in the design, which was not recognized by the fabricator/designer, resulting in cost and schedule delays. The contractor has submitted a proposal with realistic design duration. AWS gantry delivery is not on the project critical path. Further mitigation is for the AWS vendor to provide parts of the design to CHPRC for review as available to minimize formal design review time at completion of full design.</p>	Risk Recovery Action(s)	FC Date	%	Look for more efficient ways to perform Automated Weld System (AWS) gantry seismic design.	Complete	100	AWS vendor to provide portions of design for review as available.	9/30/20	0
Risk Recovery Action(s)	FC Date	%											
Look for more efficient ways to perform Automated Weld System (AWS) gantry seismic design.	Complete	100											
AWS vendor to provide portions of design for review as available.	9/30/20	0											
WSD-CSS-015: CSS Design Changes	During fabrication of the CSS equipment, necessary design changes are identified, resulting in cost and schedule impacts to the project.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$750K, 80 days	●	↓	<p><b>Risk Event:</b> Design changes for the CSS equipment have been identified by NAC and CHPRC engineering that will improve ease of fabrication, decrease operational risk and improve occupational safety.</p> <table border="1"> <thead> <tr> <th>Risk Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Evaluate each proposed change for necessity, cost and schedule impacts, as well as benefit prior to implementing change.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b> As fabrication began, NAC engineering identified design changes that were necessary for fabrication but required additional analysis and approval by CHPRC to implement, resulting in schedule delay. Additionally, CHPRC engineering staff who were assigned to other high priority projects during the CSS design period have identified changes as a result of lessons learned. These changes reduce operational risk and improve occupational safety but resulted in additional cost and schedule delay. Mitigation is for CHPRC engineering to perform a cost/benefit analysis for presentation to project management prior to requesting change from the contractor.</p>	Risk Recovery Action(s)	FC Date	%	Evaluate each proposed change for necessity, cost and schedule impacts, as well as benefit prior to implementing change.	Ongoing	N/A			
Risk Recovery Action(s)	FC Date	%											
Evaluate each proposed change for necessity, cost and schedule impacts, as well as benefit prior to implementing change.	Ongoing	N/A											
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.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$350K, 64 days	●	↔	<p><b>Risk Event:</b> 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 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>Provide additional oversight of apprentice employees.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Provide markups of fabrication drawings to shorten review, resubmit and approval cycles.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b> No significant changes in July. The mockup construction contractor submitted fabrication drawings for additional steel fabrication that could not be approved on the first review round. CHPRC provided markups to the drawings that would enable resubmittal and approval quickly.</p>	Risk Recovery Action(s)	FC Date	%	Provide additional oversight of apprentice employees.	Ongoing	N/A	Provide markups of fabrication drawings to shorten review, resubmit and approval cycles.	Ongoing	N/A
Risk Recovery Action(s)	FC Date	%											
Provide additional oversight of apprentice employees.	Ongoing	N/A											
Provide markups of fabrication drawings to shorten review, resubmit and approval cycles.	Ongoing	N/A											

Risk Title	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
<b>RL-0013/WBS-013</b>													
<p>WSD-W135-038: CSS Equipment Design Changes Impact Mockup</p>	<p>Changes to the CSS design result in impacts to the mockup structure at MASF.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$300K, 48 days</p>	●	↓	<p><b>Risk Event:</b> Design changes for the CSS equipment have been identified, which has affected the construction of the mockup at MASF.</p> <table border="1"> <thead> <tr> <th>Risk Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Assist the mockup construction contractor in providing fabrication drawings to minimize design delays due to review/resubmit/approval cycles.</td> <td>8/10/20</td> <td>75%</td> </tr> <tr> <td>Work with the mockup construction contractor to re-sequence fieldwork to allow work to continue while structural steel fabrication is in progress.</td> <td>8/30/20</td> <td>80%</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b> A recent entry into the WESF canyon to perform as-built measurements of the truckport opening resulted in design changes to the work platform that sits in the opening. The truckport opening in the simulated WESF canyon at the mockup could not accommodate this change without modification. A change in the AWS to remove a robotic arm and use a gantry-type delivery system instead required additional bracing to the simulated WESF canyon floor at the mockup. Both of these changes have resulted in change orders to the MASF mockup construction contract with cost and schedule delays. Mitigation is that project management is working proactively with the construction contractor to pull other work forward while steel fabrication is in progress such that when steel is installed, the remaining work can be accomplished without delay.</p>	Risk Recovery Action(s)	FC Date	%	Assist the mockup construction contractor in providing fabrication drawings to minimize design delays due to review/resubmit/approval cycles.	8/10/20	75%	Work with the mockup construction contractor to re-sequence fieldwork to allow work to continue while structural steel fabrication is in progress.	8/30/20	80%
Risk Recovery Action(s)	FC Date	%											
Assist the mockup construction contractor in providing fabrication drawings to minimize design delays due to review/resubmit/approval cycles.	8/10/20	75%											
Work with the mockup construction contractor to re-sequence fieldwork to allow work to continue while structural steel fabrication is in progress.	8/30/20	80%											
<b>Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)</b>													
<p>WSD-097: Major Equipment Failure – T Plant</p>	<p>T Plant suffers a major equipment failure (e.g., crane, primary power supply, etc.), resulting in cost impacts and schedule delays.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$3M, 96 days</p>	●	↔	<p><b>Risk Trigger Metric:</b> 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"> <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><b>Mitigation Assessment:</b> No significant changes in July. The project has commenced mitigating strategies (i.e., aggressive surveillance and maintenance activities) to help reduce this risk. The canyon crane is currently operational, and spare parts have been procured for the most critical spares.</p>	Mitigation Action(s)	FC Date	%	Implement aggressive corrective action/PM program	Ongoing	N/A			
Mitigation Action(s)	FC Date	%											
Implement aggressive corrective action/PM program	Ongoing	N/A											
<b>High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)</b>													
No high threat value risks identified in July.													
<b>FY2020 Key Risks</b>													
<p>WSD-086: W&amp;FM Industrial Accident or Contamination</p>	<p>An industrial accident or contamination event requires corrective actions.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$3M, 0 days</p>	●	↔	<p><b>Risk Trigger Metric:</b> 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> </tbody> </table> <p><b>Mitigation Assessment:</b> No significant changes in July. 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.</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			
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											

Risk Title	Unmitigated Risk Impacts	Assessment		Comments												
		Month	Trend													
<b>RL-0013/WBS-013</b>																
WSD-125: Multi-Year Pause in Waste Processing Results in Unexpected Container Integrity Issues	<p>A pause in waste processing results in an unexpected container degradation within SWOC (excluding TRU retrieval activities) and requires additional resources to respond.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Medium (26% to 74%)</p> <p><b>Worst Case Impacts:</b> \$5M, 0 days</p>	●	↔	<p><b>Risk Trigger Metric:</b> 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><b>Mitigation Assessment:</b> No significant changes in July. 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	<p>CWC facilities and components may reach their end of life. These items will need to be replaced and/or repaired outside of planned funding profiles, resulting in cost impacts.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Medium (26% to 74%)</p> <p><b>Worst Case Impacts:</b> \$4.1M, 0 days</p>	●	↔	<p><b>Risk Trigger Metric:</b> 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 the WRAP roof replacement.</td> <td>7/30/20</td> <td>95</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> No significant changes in July. 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 master documented safety analysis container stacking requirements are complete. Maintenance work at CWC will be scheduled based on facility work priorities. <i>The delay in the forecast completion date for drafting the SOW for the WRAP roof replacement was due to impacts from the COVID-19 pandemic.</i></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 the WRAP roof replacement.	7/30/20	95
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 the WRAP roof replacement.	7/30/20	95														
WSD-140: As-Found-Unknown Conditions - W&FMP Facilities	<p>Unknowns, as found or emergent conditions, impact the operability of one or more W&amp;FMP facilities, requiring recovery actions that result in in-scope unplanned work.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Medium (26% to 74%)</p> <p><b>Worst Case Impacts:</b> \$2M, 0 days</p>	●	↔	<p><b>Risk Trigger Metric:</b> Unknowns, as found or emergent conditions impact the operability of one or more W&amp;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><b>Mitigation Assessment:</b> No significant changes in July. 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														
WSD-144: Changes to Ecology Strategy	<p>Ecology issues a permit that significantly differs from planned scope, resulting in both cost and schedule impacts to the project.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Likely (75% to 90%)</p> <p><b>Worst Case Impacts:</b> \$10M, 192 days</p>	●	↔	<p><b>Risk Trigger Metric:</b> 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><b>Mitigation Assessment:</b> No significant changes in July. This risk was identified as a key project risk for FY2020. W&amp;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														

Risk Title	Unmitigated Risk Impacts	Assessment		Comments												
		Month	Trend													
<b>RL-0013/WBS-013</b>																
WSD-CSA-013: Cask Storage Area (CSA) Site Location Found to Have Extensive Contamination	<p>The CSA location is found to have contaminated soil or volumes of unfavorable (e.g., loose) soils.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Medium (26% to 74%)</p> <p><b>Worst Case Impacts:</b> \$20K, 32 days</p>	●	↔	<p><b>Risk Trigger Metric:</b> 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.</p> <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> No significant changes in July. 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	<p>The WESF crane was put back into limited usage for the W-130 Project; however, the crane is found to be unserviceable or fails during the W-135 Project construction and or operational activities to move Cs/Sr capsules to dry storage.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Medium (26% to 74%)</p> <p><b>Worst Case Impacts:</b> \$300K, 96 days</p>	●	↔	<p><b>Risk Trigger Metric:</b> 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>10</td> </tr> <tr> <td>Procure critical spares.</td> <td>9/30/21</td> <td>0</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> No significant changes in July. 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	10	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	10														
Procure critical spares.	9/30/21	0														
WSD-IDF-11: Discovery of Unplanned Site Conditions	<p>Unexpected site conditions are encountered during soil excavation activities, resulting in recovery actions.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Low (10% to 24%)</p> <p><b>Worst Case Impacts:</b> \$240K, 16 days</p>	●	↔	<p><b>Risk Trigger Metric:</b> During excavation (i.e., underground trenching for sewer, electrical and potable water), 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><b>Mitigation Assessment:</b> No significant changes in July. 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														
<b>Unassigned Risks (Pending ownership of identified risks/opportunities)</b>																
No unassigned risks identified in July.																

## 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	21.5	15.6	13.8	(5.9)	-27.6%	1.8	11.7%

Numbers are rounded to the nearest \$0.1 million.

#### CM Schedule Performance (-\$5.9M/-27.6%)

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 essential mission-critical 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). The CSA project was authorized to return to work on June 22, 2020, to begin implementing a COVID-19 resumption to work plan, eventually resuming fieldwork on July 8, 2020. The bulk of the scope originally planned for this period was to complete relatively higher value concrete formwork and steel reinforcement placement activities for the CSP and OP. Because of the PSWO delay and the slow, deliberate implementation of the COVID-19 work resumption plan, fieldwork performed was limited to earthworks, causing the negative schedule variance.

#### CM Cost Performance (+\$1.8M/+11.7%)

The CM positive cost variance resulted from a PSWO issued by RL to CHPRC on March 24, 2020. The PSWO covered non-portable work activities not associated with continuation of essential mission-critical operations that could not be performed in a safe and compliant manner consistent with the 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). Delays in the ability to implement the original RL-directed PSWO resumption of work plan for subcontracted activities due to COVID-19 impacts extending longer than anticipated resulting in less ACWP, which caused a positive cost variance.

## 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	1,639.5	1,618.0	1,534.7	(21.5)	-1.3%	83.4	5.2%	1,675.3	1,592.6	57.9	82.7

Numbers are rounded to the nearest \$0.1 million.

#### CTD Schedule Performance (-\$21.5M/-1.3%)

The CTD schedule variance is within threshold.

**CTD Cost Performance (+\$83.4M/+5.2%)**

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 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.

**Variance at Completion (+\$82.7M/+4.9%)**

The CTD VAC is within threshold.

**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	202.2	184.0	18.3
Management of Cesium and Strontium Capsules (Line Item)	14.3	1.2	13.1
RL-0013 – Total	216.5	185.2	31.4

Numbers are rounded to the nearest \$0.1 million.

**Funds/Variance Analysis**

The current FY2020 projected funding level of \$216.5 million decreased by \$500K from the prior month to process Inter-Entity Work Order for the purchase of Solid Waste Boxes. Line item funding reflects FY2019 carryover and FY2020 new funding targets. The spending forecast of \$185.2 million reflects a decrease of approximately \$9.2 million from July, primarily for W&FMP scope that pushed into FY2021 due to delays in the ability to implement the original RL-directed PSWO resumption of work plan for subcontracted activities due to COVID-19 impacts extending longer than anticipated in the June spending forecast. ERDF reduced forecast due to non-labor costs being less than expected with waste generation being slow due to the Hanford Site being in an essential mission-critical operations posture in response to COVID-19.

### 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 Waste	9/30/2020		9/30/2020	On schedule
M-091-52-T01C	Remove twenty (20) Additional Mixed Waste Containers from Outside Storage Area A and/or Outside Storage Area B	11/30/2020	4/2/2020(A)		Complete

## 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-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**

<b>Description</b>	<b>CHPRC Delivery Date</b>	<b>Expected RL Due Date</b>
RL Review/Approve CSA Preliminary Documented Safety Analysis (first FY)	5/16/2019(A)	11/2/2020
RL Review WESF Safety Design Strategy, Revision 3	4/7/2020(A)	7/3/2020(A)
RL Review/Approves Project W-135, WESF Modifications, CD-2 and CD-3 Documentation	7/27/2020	11/26/2020
RL Approve IDF Final Hazard Categorization	8/5/2020	9/24/2020

# 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

July 2020  
CHPRC-2020-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

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

## PROJECT SUMMARY

In July, the Soil and Groundwater Remediation Project (S&GRP) continued performance of essential mission-critical work and remobilization of non-portable high priority, low risk and low personal protective equipment (PPE) activities in compliance with the U.S. Department of Energy (DOE), Richland Operations Office (RL) partial stop work order (PSWO) that was issued as a part of the Hanford Site response to the novel coronavirus (COVID-19) and the CH2M HILL Plateau Remediation Company (CHPRC) phased return to work plan as approved by RL. Progress continued 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 include 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	7.5	284.3	0.2	16.1						
HX P&T	29.9	236.4	2.3	31.4						
KR-4 P&T	13.4	125.9	0.0	1.4						
KW P&T	13.2	126.5	0.0	9.5						
KX P&T	32.7	356.7	0.1	19.0						
200 West P&T	87.9	914.2	0.0	4.4	163.0	1,627.0	1.02x10 <sup>11</sup>	1.12 x10 <sup>12</sup>	3.0	55.0
<b>Combined</b>	184.3	2,043.9	3.6	81.8	163.0	1,627.0	1.02x10 <sup>11</sup>	1.12 x10 <sup>12</sup>	3.0	55.0
<b>FY2020 Gold Metric</b>	--	<b>2,200.0</b>	--	<b>80.0</b>	--	<b>1,800.0</b>	--	N/A	--	<b>90.0</b>

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
<b>Total FY2020 Wells</b>	<b>24</b>	<b>0</b>	<b>3</b>
<b>Site Wide Boreholes</b>	<b>0</b>	<b>0</b>	<b>0</b>
	FY2019 Carryover	Current Calendar Month	Cumulative
200-BP-5	2	0	2
200-ZP-1	1	0	1
<b>Total FY2019 Carryover Wells</b>	<b>3</b>	<b>0</b>	<b>3</b>

\*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	44%
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	90%
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	69%

## 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	1	N/A
First Aid Cases	1	4	7/22/2020 - Employee was showing symptoms of possible heat stress. The employee had completed offloading a vendor tanker of sulfuric acid and was removing their personal protective equipment, including a full acid suit. It was observed that the employee was sweating and looked fatigued, also stating they were getting a headache. The employee was taken to a cool area, given water and then taken to HPM Corporation for evaluation. (25534).
Near-Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### Environmental Integration

- During July, a series of three workshops were conducted with the regulators to provide an opportunity for feedback and discussion about how their comments were dispositioned from review of the draft Cumulative Impact Evaluation (CIE) approach document. The outcome of the workshops was positive and set the course for issue of the approach document by the fiscal year (FY) end.

**100-NR-2 Operable Unit (OU)**

- Completed disposition of RL review comments on the Technical Impracticability (TI) waiver document for the strontium-90 contaminated groundwater.
- Reissued the Draft TPA-CN-0887 for DOE/RL-2001-27, *100-N Sampling and Analysis Plan* on July 20, 2020, to reflect a correction to several laboratory practical quantification limits.

**100-HR-3 OU**

- Finalized the FY2021 Remedial Process Optimization plan and presented it to RL and the Washington State Department of Ecology (Ecology) on July 8 and July 22, 2020, respectfully.
- Submitted an update to a strategy white paper that summarized results of an evaluation of current practices and regulatory requirements for the disposal of purge water at the modular storage units (MSUs) and a draft non-significant change to RL on July 14, 2020, for submittal to Ecology. The non-significant change would be submitted to the Administrative Record for all current final and interim record of decision (RODs) declaring the MSUs as onsite for management of purge water.

**100-KR-4 OU**

- Obtained RL and U.S. Environmental Protection Agency (EPA) approval on TPA-CN-0894, which updates DOE/RL-2013-48, *Operations and Maintenance Plan for the 100-KR-4 Pump and Treat Systems*, Revision 1, on June 29, 2020.
- Finalized the FY2021 100-KR-4 Remedial Process Optimization plan and presented to RL on July 8, 2020.

**300-FF-5 OU**

- Submitted SGW-63113, *300-FF-5 Operable Unit Enhanced Attenuation Uranium Sequestration Completion Report*, to RL on July 9, 2020.

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

- The public review period of the proposed plan ended on July 8, 2020 and CHPRC support to RL to identify proposed responses to public was initiated.

**200-UP-1 OU**

- Transmitted DOE/RL-2018-42, *Central Plateau Groundwater Tracer Study Sampling and Analysis Plan*, Revision 0, to RL on June 29, 2020.
- Transmitted to RL for review DOE/RL-2020-31, *Technical Impracticability Evaluation for Restoration of Iodine-129 Contamination in the Hanford 200-UP-1 Groundwater Operable Unit*, Decisional Draft, on July 1, 2020.

**200-CP-1 OU**

- Submitted to RL for review and comment DOE/RL-2020-27, *Remedial Investigation/Feasibility Study Work Plan for the 200-CP-1 Operable Unit*, Decisional Draft, on July 16, 2020.

**200-WA-1 & 200-EA-1 OUs**

- Finalized preparation of *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) Change Control Form C-20-02, *Waste Site Re-Assignment to 200-IA-1 OU based on IAMIT Determination 2020-006* for RL transmittal to Ecology and EPA for signature on July 26, 2020. This Change Control Form implements the new Central Plateau Inner Area (IA) OU agreements documented in Interagency Management Integration Team 2020-006 and reassigns 101 waste sites from 200-WA-1 and 200-EA-1 OUs to the 200-IA-1 OU.

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

- Operated the 200 West P&T at an average of 1,923 gpm.

**100 Area P&Ts**

- Operated the DX P&T at 725 gpm, below the facility capacity of 775 gpm. DX was shutdown on July 11, 2020, due to an electrical utility outage.
- Operated the KR-4 P&T at 301 gpm, below the facility capacity of 330 gpm.
- Operated the KW P&T at 296 gpm, below the facility capacity of 330 gpm.
- Operated the KX P&T at 723 gpm, below the facility capacity of 900 gpm.
- Operated the HX P&T at 666 gpm, below the facility capacity of 900 gpm.



## MAJOR ISSUES

### Issue

Progress to complete the 100-BC Area 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 Cr(VI) 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 has the potential to impact all groundwater OUs with existing Cr(VI) cleanup levels by causing them to change to the lower surface water cleanup level.

### Corrective Action

No corrective action has been identified.

### Status

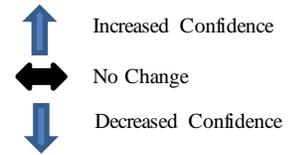
CHPRC legal and Environmental Protection & Strategic Planning groups issued a white paper on March 30, 2020, outlining the history and regulation that supports RL's position that the Cr(VI) groundwater cleanup level indicated in the 100-BC-5 proposed plan applies to most of the aquifer, and the surface water cleanup level only applies at the groundwater river interface. An additional white paper by CHPRC was issued on May 7, 2020, that evaluated the CERCLA and *Model Toxics Control Act* requirements for groundwater protection. The white paper recommended maintaining the current cleanup levels of 10 µg/L and 48 µg/L for surface water and groundwater protection, respectively. Ecology's position on this matter was relayed to RL by email on July 9, 2020, wherein Ecology asserted that for purposes of groundwater cleanup at the 100-BC-5 OU, Washington State codes are considered applicable or relevant and appropriate requirements (ARARs) and, as such, the surface water quality standard for Cr(VI) cleanup level of 10 µg/L applies throughout the plume. RL is reviewing this information internally and weighing their options for a path forward.

Regarding YN issues concerning the risk assessment and the extent of characterization performed for the lower aquifer, RL and EPA have scheduled a technical meeting with YN for August 5, 2020, to discuss these particular 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							
<b>RL-0030/WBS-030</b>										
<b>Explanation of major changes to the project monthly stoplight chart:</b> Recovery assessment for realized closure plan risks have been updated to reflect the downward trend of the risks health assessment. As stated below, the ability to implement successful recovery actions has been hindered by the need for additional comment resolution, additional historical information and Ecology's desire to align all four closure plans prior to certification.										
<b>Realized Risks</b> (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.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$174.0K, 80 days	<span style="color: red; font-size: 24px;">●</span>	<span style="color: blue; font-size: 24px;">↓</span>	<p><b>Risk Event:</b> 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 these comments 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-bottom: 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><b>Recovery Assessment:</b> Ecology concurrence on language for the 216-B-63 Closure Plan was received on April 20, 2020, and frozen. Similar comments on other closure plans are being addressed in the same approach as decided in the 216-B-63 Closure Plan. Once resolution on the 216-B-63, 216-S-10 and 216-A-29 Closure Plans is achieved, CHPRC will pursue certification. There maintains a concern that CHPRC may be asked to unfreeze this closure plan to facilitate comment resolution based on current discussions and historical experience, resulting in a reduced health trend assessment.</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										
<b>RL-0030/WBS-030</b>													
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.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$174.0K, 80 days	●	↓	<p><b>Risk Event:</b> 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"> <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><b>Recovery Assessment:</b> CHPRC has completed comment resolution and the document is frozen. Similar to 216-B-63, there maintains a concern that CHPRC may be asked to unfreeze this closure plan to facilitate additional comments to align all four closure plans before the closure plan package is certified. This will result in additional in-scope, unplanned work to support additional revisions to the document. Recovery actions have proven to be ineffective in reducing in-scope, unplanned work..</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-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.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$174.0K, 80 days	●	↓	<p><b>Risk Event:</b> 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 accordingly.</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><b>Recovery Assessment:</b> The resolution of comments for the 216-B-63 and 216-S-10 Closure Plans and the description for conveyances in 216-B-3 Closure Plan has resulted in the need to unfreeze this closure plan and support additional revisions, resulting in in-scope, unplanned work. Revisions to the 216-A-29 Closure Plan are currently with Ecology for review and concurrence. However, there exists a likely probability Ecology will not be able to support a closure plan concurrence by September 3, 2020. Recoverable actions have proven to be ineffective in reducing the in-scope, unplanned work associated with Ecology’s requests. The health assessment of this risk has been changed to reflect a downward trend.</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.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$120.0K, 48 days	●	↔	<p><b>Risk Event:</b> Early collaborative reviews of the decisional draft FS by 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><b>Recovery Assessment:</b> No significant changes in July. 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											
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)													
No Critical Risks identified in July.													
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)													
No High Risks identified in July.													

Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
<b>RL-0030/WBS-030</b>										
<b>FY2020 Key Risks</b>										
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.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Low (10% to 25%) <b>Worst Case Impacts:</b> \$350K, 25 days	●	↔	<p><b>Risk Event:</b> A primary node of the Gaia Environmental modeling super computer server fails. This failure results in delays to Composite Analysis and CIE 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><b>Mitigation Assessment:</b> No significant changes in July. CHPRC is touching base with Mission Support Alliance, LLC (MSA) regularly and anticipates that they can move into more meaningful discussions to establish a path forward when the Hanford Site gets into Phase II of work resumption. CHPRC was able to work with MSA to complete the install of an additional computing node, which helps, but is still not the end vision of a virtual front-end. 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								
SGW-171: Increase in Routine Sampling & Analysis Requirements	Sampling and characterization requirements increase above planning assumptions due to changes from data quality objective/sampling and analysis (SAP) sessions and/or other requested changes to analyses, resulting in cost impacts.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$448K, 0 days	●	↔	<p><b>Risk Event:</b> 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.</p> <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> No significant changes in July. 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.</p>	Mitigation Action(s)	FC Date	%	None identified at this time.	N/A	N/A
Mitigation Action(s)	FC Date	%								
None identified at this time.	N/A	N/A								
<b>Unassigned Risks</b> (Pending ownership of identified risks/opportunities)										
No unassigned risks identified in July.										

## 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	12.0	8.7	8.3	(3.3)	-27.2%	0.4	5.1%

Numbers are rounded to the nearest \$0.1 million.

### CM Schedule Performance (-\$3.3M/-27.2%)

The CM negative schedule variance reflects the impact of the PSWO issued to CHPRC by RL on March 24, 2020. The PSWO covered non-portable work activities not associated with essential mission-critical 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. The Hanford Site began phased return-to-work operations on May 26, 2020.

In July, the S&GRP continued performing essential mission-critical operations and partial remobilization of high priority, low risk, low PPE field activities in accordance with CHPRC’s phased return to work plan as approved by RL. Although drilling and sampling crews have begun remobilization to the

Hanford Site, routine groundwater sampling and analysis and well drilling (and associated sampling during) activities planned in July were behind schedule. In addition, material procurements for the ion exchange train installation were delayed. The manufacturer of the ion exchange train encountered delays due to COVID-19, delaying progress on the initial installation activities.

The negative schedule variance generated by the PSWO is offset, in part, by schedule recovery for the composite analysis, which had been delayed due to in scope unplanned work and computing issues earlier in the FY. The composite analysis sensitivity cases were not as complex as planned, and the saturated zone activities were supported by additional computing resources, allowing significant schedule recovery in July.

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

The CM cost variance is within reporting thresholds.

### 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	1,735.1	1,712.0	1,663.3	(23.1)	-1.3%	48.8	2.8%	1,755.1	1,703.4	40.2	51.7

Numbers are rounded to the nearest \$0.1 million.

#### CTD Schedule Performance (-\$23.1M/-1.3%)

The CTD negative schedule variance is within reporting thresholds.

#### CTD Cost Performance (+\$48.8M/+2.8%)

The CTD positive cost variance is within reporting thresholds.

#### Variance at Completion (+\$51.7M/+2.9%)

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	117.3	105.2	12.1
Numbers are rounded to the nearest \$0.1 million.			

### Funds/Variance Analysis

Projected FY2020 funding in July was reduced from \$126 million to \$117.3 million due to a reallocation of funding to RL-0011. The spending forecast of \$105.1 million reflects an overall decrease of \$3 million, primarily due to revised project costs associated with impacts from the PSWO. Drilling subcontract forecasts were revised to reflect the COVID impact change order values (previously estimated) and recently received contract award values. In addition the 200W P&T facility forecast was reduced to better reflect current staffing levels, and reduced chemical requirements due to the downtime from the PSWO.

### Critical Path Analysis

Critical path analysis will be provided upon request.

## MILESTONE STATUS

The following table is a one-year look ahead of project breakdown structure RL-0030, Tri-Party Agreement-enforceable milestones, nonenforceable target due dates and commitments for CHPRC.

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-015-93C	Initiate Characterization Fieldwork for 200-SW-2 Operable Unit Landfills	9/30/2018		To be determined (TBD)	In dispute resolution
M-015-98	Complete Remedial Investigation of U Plant Related Waste Sites located in 200-WA-1	6/30/2019		TBD	In dispute resolution
M-085-70	Submit to Ecology a Remedial Investigation/Feasibility Study Work Package for 200-CB-1	9/30/2019		2/20/2023	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-024-71-T01	Conclude Discussions of Well Commitments Initiated under M-024-58	8/1/2020	7/23/2020		Complete

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-085-80	Submit Remedial Investigation/Feasibility Study Work Plan for 200-CP-1 to Ecology	9/30/2020		9/20/2020	On schedule
M-015-112	Submit Draft B 200-IS-1 RFI/CMS/RI/FS Work Plan to Ecology with Schedule Dates	11/30/2020		3/7/2023	At risk
M-024-71	Complete the Construction of All Wells Listed for CY20 and Before	12/31/2020		12/31/2020	On schedule
M-024-58N	Initiate Discussions of Well Commitments	6/1/2021		6/1/2021	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 of the 200 Area P&T Report	6/10/2020(A)	7/30/2020
RL Review of Technical Impracticability Applicable or Relevant and Appropriate Requirement Waiver Request, Decisional Draft	7/02/2020(A)	7/31/2020
RL Review 200-ZP-1 Operations and Maintenance (O&M) Plan/Remove Bio Treatment, Decisional Draft Revision 6	7/03/2020(A)	8/10/2020
RL Review of 100-KE Soil Flushing Explanation of Significant Difference (ESD)	8/14/2020	9/12/2020
RL Transmit 200-BP-5 WMA C Drilling SAP, Draft A to Regulators for Review	8/18/2020	8/21/2020
RL Transmit 200-ZP-1 O&M Plan, Draft A to EPA for Review	8/21/2020	9/4/2020
RL Review of KW Rebound Study Parent SAP Draft	8/26/2020	9/24/2020
RL Certify and Submit 216-S-10 Pond and Ditch Addendum to Ecology	8/31/2020	9/13/2020
RL Review of 100-D-H Waste Site Closeout Package C	8/31/2020	9/14/2020
RL Transmit Final 100-HR-3 RD/RA WP Revision 0 to Ecology	9/24/2020	10/3/2020
RL Transmit 200-CP-1 RI/FS WP, Draft A to Ecology for Review	9/24/2020	9/28/2020
RL Transmit 100-KE Soil Flushing ESD to EPA for Review	9/29/2020	10/13/2020
RL Transmit I-129 TI ARAR Waiver Request Document, Draft A to Regulator for Review	10/1/2020	10/15/2020
RL Review 200-BP-5/200-PO-1 IA RD/RA WP Decisional Draft	10/1/2020	10/30/2020
RL Approve 100-HR-3 RD/RA WP Revision 0		10/3/2020
RL and Ecology Review West Groundwater Monitoring Plan in Support of RCRA Revision 9 Permit Modification, Draft	10/5/2020	10/16/2020
RL Review of 100-KR-4 FS Draft 0	10/29/2020	11/5/2020

\*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

July 2020  
CHPRC-2020-07, Rev. 0  
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 July, the Central Plateau Risk Management (CPRM) Project and the West Area Remediation Project (WARP) continued essential mission-critical operations 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). CPRM and WARP continued slowly returning personnel to the Hanford Site in July. At the Reduction-Oxidation (REDOX) canyon, crews returned to implement social distancing configurations in MO-2191 and continued the setup of MO-2195, including construction of the tunnel from 202A and setup of personal contamination monitors. Additionally, construction of the access road and new REDOX Container Transfer Area (CTA) were completed, as well as excavation of the new footprint and setting of forms of the future slab for the temporary REDOX ventilation system. At the B Plant, the ventilation system was returned to service, and electrical investigations and isolations were restarted to support cold and dark activities of the 224B Facility. Operation crews initiated the backlog of preventative maintenance, focusing on lapsed calibrations to enable returning canyon ventilation systems to service. The Z Crib stabilization offsite mockup activities were completed. Finally, crews resumed vegetation management at troublesome Waste Information Data System sites near the Waste Treatment and Immobilization Plant. WARP worked on setting up work areas to implement social distancing and progressed on planning for the sampling and characterization, hazard material removal and demolition related to the demolition of the 234-5Z-BA, 234-5Z-BE and 216-ZP-1 structures.

### 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	1	N/A
Total Recordable Injuries	0	0	N/A
First Aid Cases	1	7	7/8/2020 - Employee was cutting open water bottles in order to drain them and lacerated the tip of their left little finger while wearing cut-resistant gloves. The laceration was approximately one-quarter-inch long. Employee was sent to HPM Corporation and released without restriction. (25530)
Near Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### CPRM Surveillance and Maintenance

- Completed the monthly As Low As Reasonably Achievable Current Technology surveys at the canyon facilities.

### Reduction-Oxidation (REDOX) Canyon Risk Mitigation

- Completed construction of the new REDOX temporary ventilation access road and CTA.
- Completed installation of electrical services for REDOX Phase 1 corrective action to procure and install a double-wide trailer to support risk mitigation activities inside REDOX.
- Completed 60 percent of the balance of system design report milestone for the temporary ventilation system.

### Aging Structures Stabilization

- Completed fabrication of conveyance system for 216-Z-9 Crib.
- Completed mockup installing the 216-Z-9 Crib conveyance system.
- Completed demonstration of grout flowability mix design for the 216-Z-2 and 216-Z-9 Cribs and the 241-Z-361 Tank.

### 224B Facility Demo Prep

- Resumed electrical investigations and isolations at the 224B Facility to support cold and dark activities.
- Continued development of work packages for process piping removal, mechanical isolations and initial cell entry.
- Reviewed Criticality Safety Evaluation Report set limits for loading and transporting waste containers.

### West Area Remediation Project

- Planning progressed on hazardous material removal and electrical and mechanical isolation work packages related to the planned demolition of the PFP south trailer village, 234-5Z-BA, 234-5Z-BE and 216-ZP-1 structures.
- Crews began debris removal and setup around the 234-5Z-BA, 234-5Z-BE and 216-ZP-1 structures.
- Following discussions with RL, union leadership and regulators, work began to down post an area from a Contamination Area/Airborne Radiation Area (CA/ARA) to a CA only. With higher-risk work at PFP currently on hold as the Hanford Site continues a phased remobilization in response to COVID-19, a temporary reconfiguration of some radiological boundaries to accommodate lower-risk activities within and near the PFP footprint is necessary. The activities follow Hanford Site's work resumption plan, prioritizing lower-risk work that will not strain limited personal protective equipment. The risk reduction activities in the down posted area will include preparation for the deactivation and remediation of various support facilities, as well as the stabilization of three underground structures with engineered grout.

## MAJOR ISSUES

### Issue

Management directed a work stand down at the REDOX canyon 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 radiation zone 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 development of a work package to install temporary power and lighting within REDOX is expected to finish in August to ensure that Phase II activities can begin after the completion of Phase I. The one-month delay in the forecasted completion date for the work package is due to the continued impacts of and the associated RL-directed PSWO.

### 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.

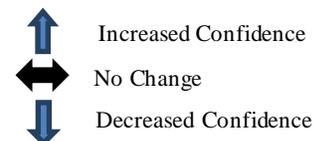
**Status**

Electrical investigations resumed at the 224B Facility in July. Twelve electrical isolations remain with an expected completion date targeted for mid-August. This will place the 224B Facility in an electrically safe condition and allow for resumption of fieldwork.

**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.



Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
<b>RL-0040/WBS-040</b>										
<b>Explanation of major changes to the project monthly stoplight chart:</b> Risk REDOX-07, <i>Building Accessibility due to Water Intrusion</i> , was removed from the stoplight chart in the month of July. Risk REDOX-VS-004, <i>Unexpected Design Changes</i> , was added to the stoplight chart as a realized risk.										
<b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>										
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.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$100K, 24 days	<span style="color: red;">●</span>	↔	<b>Risk Event:</b> The risk event was due to exposed electrical wires discovered during an electrical safe condition being performed, thus posing a potential electrical risk. This was identified for all CPRM legacy facilities that are currently being electrically investigated for potential electrical risk.  <table border="1" style="width: 100%;"> <thead> <tr> <th>Risk Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Complete electrical isolations.</td> <td>August 2020</td> <td>35</td> </tr> </tbody> </table> <b>Recovery Action Assessment:</b> No major changes in July. Electrical isolations to complete cold and dark activities of the 224B Facility are on hold pending lifting of the PSWO. 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 in an electrically cold and dark state. 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.	Risk Recovery Action(s)	FC Date	%	Complete electrical isolations.	August 2020	35
Risk Recovery Action(s)	FC Date	%								
Complete electrical isolations.	August 2020	35								
224B-008: Impacted by OHC (Other Hanford Contractors) or Other CH2MHill Plateau Remediation Company (CHPRC) Projects	Delays by OHC or other CHPRC projects impact the schedule and technical approach due to inconsistencies with CHPRC execution, resulting in recovery actions.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Low (10% to 25%) <b>Worst Case Impacts:</b> \$30K, 12 days	<span style="color: red;">●</span>	↔	<b>Risk Event:</b> 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.  <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> <b>Recovery Action Assessment:</b> No major changes in July. Insulators were loaned to MSA to support asbestos abatement in 2101M.	Risk Recovery Action(s)	FC Date	%	Mitigate OHC delays.	Ongoing	N/A
Risk Recovery Action(s)	FC Date	%								
Mitigate OHC delays.	Ongoing	N/A								

Risk Title	Unmitigated Risk Impacts	Assessment		Comments											
		Month	Trend												
<b>RL-0040/WBS-040</b>															
<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><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$0, 16 days</p>	●	↔	<p><b>Risk Event:</b> 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>August 2020</td> <td>95</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><b>Recovery Action Assessment:</b> This risk was realized in October 2019. Final electrical connections for the SOP trailer completed in July 2020 with final setup to complete by August 2020. A detailed corrective action list 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.</p>	Risk Recovery Action(s)	FC Date	%	Procure and install the SOP trailer.	August 2020	95	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.	August 2020	95													
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 (e.g., 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><b>Risk Handling Strategy:</b> Transfer</p> <p><b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$0, 0 days</p>	●	↔	<p><b>Risk Event:</b> 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>45</td> </tr> <tr> <td>Repair minor roof defects.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b> No major changes in July. Integrity failures could lead to water issues within radiologically contaminated areas, causing a hazard to personnel. Going to a cold and dark state 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. Project workers continue to make minor repairs to leaking parts of the roof to significantly reduce water intrusion. Electrical isolation indexing activities are expected to increase in September 2020 as employees return to work following implementation of COVID-19 social distancing protocols.</p>	Risk Recovery Action(s)	FC Date	%	Perform cold and dark activities to shut off building power.	December 2020	45	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	45													
Repair minor roof defects.	Ongoing	N/A													
<p>REDOX-VS-004: Unexpected Design Changes</p> <p>Unexpected ventilation system design changes result in rework of planned scope, resulting in cost and schedule impacts to the project.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$2M, 96 days</p>	●	↓	<p><b>Risk Event:</b> Necessary design changes have been identified for the REDOX ventilation system, including previously unidentified features for successful operation, requirements for fire detection or functionality/communication, and system inlet/outlet to the facility.</p> <table border="1"> <thead> <tr> <th>Risk Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Design and procurement of 291S power distribution.</td> <td>September 2020</td> <td>60</td> </tr> <tr> <td>Design, fabrication, and planning for procurement of the 202S ventilation system.</td> <td>December 2020</td> <td>70</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b> No major changes in July. Project team continues to integrate CPRM Engineering and Facility Design Authorities with vendor and vendor deliverable reviews for the objective of early detection of unexpected or emerging design changes to mitigate schedule and cost impact.</p>	Risk Recovery Action(s)	FC Date	%	Design and procurement of 291S power distribution.	September 2020	60	Design, fabrication, and planning for procurement of the 202S ventilation system.	December 2020	70			
Risk Recovery Action(s)	FC Date	%													
Design and procurement of 291S power distribution.	September 2020	60													
Design, fabrication, and planning for procurement of the 202S ventilation system.	December 2020	70													
<b>Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)</b>															
<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><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Very low (&lt;10%) <b>Worst Case Impacts:</b> \$260K, 48 days</p>	●	↔	<p><b>Risk Triggers:</b> 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><b>Mitigation Assessment:</b> No major changes in July. 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. Based on this information, the current plan would move any excavation work near the sand filters to October 2020.</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							
<b>RL-0040/WBS-040</b>										
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)										
No high threat value risks identified in July.										
<b>FY2020 Key Risks</b>										
BOS-003: Facility Integrity	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).  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$1M, 0 days	●	↔	<p><b>Risk Triggers:</b> The project experiences problems with aging building systems and components (e.g., cribs, roofing and structures, etc.) during routine S&amp;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>August 2020</td> <td>90</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> No major changes in July. This risk was identified as a key project risk for FY2020. A subcontract to perform structural analysis of the 231-Z Facility was awarded in late April. The contract work began in June 2020. Routine S&amp;M activities continue to be performed to mitigate risk.</p>	Mitigation Action(s)	FC Date	%	Perform lifecycle evaluations of critical structures, systems and components.	August 2020	90
Mitigation Action(s)	FC Date	%								
Perform lifecycle evaluations of critical structures, systems and components.	August 2020	90								
REDOX-VS-001: Changes to Stack & Stack Monitoring Requirements Affect the Project Schedule	Additional stack and stack monitoring requirements are issued by the regulators, resulting in cost impacts and schedule delays to the project.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$1.5M, 96 days	●	↔	<p><b>Risk Triggers:</b> 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>15</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> No major changes in July. 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. Revision to the AMP was submitted to RL, EPA and DOH on May 25, 2020, for their review, and resolution of this review is still outstanding.</p>	Mitigation Action(s)	FC Date	%	Negotiate changes to the AMP with regulators.	September 2020	15
Mitigation Action(s)	FC Date	%								
Negotiate changes to the AMP with regulators.	September 2020	15								
<b>Unassigned Risks</b> (Pending ownership of identified risks/opportunities)										
No unassigned risks identified in July.										

## 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	8.3	5.8	9.7	(2.5)	-30.3%	(3.9)	-67.6%

Numbers are rounded to the nearest \$0.1 million.

### CM Schedule Performance: (-\$2.5M/-30.3%)

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 essential mission-critical 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). Labor resources that were planned

at B Plant, REDOX, Plutonium Uranium Extraction Plant (PUREX) and the PFP south waste site were not associated with essential mission-critical operations. As the planned work involved fieldwork, it was demobilized and placed in a safe configuration.

**CM Cost Performance: (-\$3.9M/-67.6%)**

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 essential mission-critical operations that could not be performed in a safe and compliant manner consistent with the 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). CHPRC and subcontractor labor assigned to work that could not be performed in a remote manner was charged to the work breakdown structure 040.97.01.04.01 to collect and segregate unproductive time caused by the PSWO.

**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	619.4	600.1	598.5	(19.3)	-3.1%	1.6	0.3%	638.1	657.8	59.3	(19.7)

Numbers are rounded to the nearest \$0.1 million.

**CTD Schedule Performance: (-\$19.3M/-3.1%)**

The CTD schedule variance is within reporting thresholds.

**CTD Cost Performance: (+\$1.6M/+0.3%)**

The CTD cost variance is within reporting thresholds.

**Variance at Completion (-\$19.7M/-3.1%)**

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	3.1

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 reflects an overall increase of \$0.3 million, which was primarily due to higher than anticipated labor costs in July from the impacts of COVID-19 and the PSWO.

### 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*-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	On schedule.
M-085-100	Submit Removal Action Work Plan for 224T to EPA	9/30/2020		8/24/2020	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 DOE/RL-2015-72, PUREX North Closure Plan	07/18/2019(A)	07/23/2020(A)
RL Transmit DOE/RL-2019-37,224T Sampling Analysis Plan (SAP) Draft A to Regulators for Review	11/19/2019(A)	08/03/2020
RL Obtain Regulator Approval of DOE/RL-2016-46, Tier 2 PUREX SAP	02/07/2020(A)	07/20/2020(A)
RL Transmit DOE/RL-2019-36, 224T Removal Action Work Plan (RAWP), Draft A to Regulators for Review	02/14/2020(A)	08/24/2020
RL Obtain Regulator Review DOE/RL-2016-53, PUREX Action Memorandum (AM)	05/06/2020(A)	08/29/2020
RL Review DOE/RL-2020-04, PUREX RAWP	05/20/2020(A)	08/20/2020
RL Obtain Regulator Review of DOE/RL-2017-06, REDOX RAWP, Revision 1 Draft	07/23/2020(A)	09/17/2020
RL Obtain Regulator Review of DOE/RL-2018-46, REDOX Air Monitoring Plan, Revision 1, Draft	07/23/2020(A)	09/17/2020
RL Obtain Regulator Review of DOE/RL-2017-05, REDOX SAP, Revision 1 Draft	07/23/2020(A)	09/17/2020
RL Review PUREX SAP Decisional Draft	08/10/2020	08/27/2020
RL Review DOE/RL-2016-51, B-Plant AM Decisional Draft	08/24/2020	09/03/2020

# 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

July 2020  
CHPRC-2020-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

L.M. Douglas  
Vice President for  
River Risk Management Project

M. A. Wright  
Vice President for  
Project Technical Services

## PROJECT SUMMARY

### **K Basin Operations (KBO)**

At KBO, essential mission-critical operations continued in compliance with the U.S. Department of Energy (DOE), Richland Operations Office (RL) partial stop work order (PSWO). The CH2M HILL Plateau Remediation Company (CHPRC) Hazard Review Board (HRB) met and approved with comments the plan for Settler Vessel Video Borescope Inspection. The KBO team worked on resolution of the HRB comments. Several walk downs were performed in the K West Fuel Storage Basin to facilitate progress on drafted work packages, including the Integrated Water Treatment System strainer and hose removal, fuel specimen conditioning and basin sand filter sample collection. Testing of fabricated vertical pipe container (VPC) components was completed and identified the need to make modifications to the funnel to address deflection when the unit is picked up. The auger demonstration contractor completed fabrication of the special auger tool and initiated shipment from Germany. The 100K Soil Remediation project resumed overburden removal at 100-K-60 on July 7, 2020. Approximately 10,175 m<sup>3</sup> of clean material was removed in July from over top the 100-K-60 pipeline waste site and stockpiled for use as future backfill material. A final post-excavation civil survey was performed at the 116-KE-2 waste site and will be used in the preparation of the verification sampling design. The remediation design for the 100-K-79:7 and 100-K-99 waste sites has been updated and approved.

### **River Risk Management Project (RRMP)**

The project continued essential mission-critical operations and entered Phase 1 in compliance with the RL-directed PSWO Hanford Site response to COVID-19, as well as continued use of temporary alternate work locations for portable work as appropriate. Preparations continued for implementation of social distancing for subcontractors' staff and Radiological Control (RadCon) organization. A contract was established with Pacific Northwest National Laboratory (PNNL) to perform radiological testing of the acrylamide grouting that will be used for soil stabilization during B Cell excavation activities. A team started to finalize training for future returning workers in support of work evolutions in contamination area (CA)/high contamination areas. Equipment procurement continued for the cell dams, universal cutting tool, waste boxes, modified airlock rail system and the B Cell 10-ton crane.

## EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
20-EMS-KBO-OB1-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, <i>Pollution Prevention and Best Management Practices Plan for State Waste Discharge Permits ST 4508, ST 4509, and ST 4510, Revision 3, and 100K-STD-OP-52370, Discharges to Ground.</i>	9/30/2020	75%
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	80%

## TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	Current Month	Rolling 12 Months	Comment
Days Away, Restricted or Transferred	0	1	N/A
Total Recordable Injuries	0	1	N/A
First Aid Cases	3	11	<p>7/15/2020 – Employee got hot and became ill after drinking cold water rapidly. The employee was taken to HPM Corporation (HPMC) for evaluation. (25532)</p> <p>7/22/2020 - While working in basin (radiation area/CA), an employee bumped their head. A small spot of blood was observed on Anti-Chood. Surveyed out by RadCon and was taken to HPMC for evaluation. (25535)</p> <p>7/22/2020 - Employee received a puncture on the left hand while cutting zip tie with knife. Employee was taken to HPMC for evaluation and returned to work with no restriction. (25536)</p>
Near Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### 100K Basin Operations

- 100K Closure Project:
  - o 100K West Basin Deactivation
    - The CHPRC HRB approved the Settler Vessel Video Borescope Inspection with comments.
    - Testing of fabricated VPC components was performed. The testing identified the need to make modifications to the funnel to address deflection when the unit is picked up.
    - The auger demonstration contractor completed fabrication of the special auger tool and initiated shipment from Germany.
    - Preventive maintenance (PM) coordinators closed out 32 PM work packages for July, prepared August packages, approved the Garnet Filter Media Retrieval System calibration document (PRC-KC-00069).
- 100K Soil Remediation
  - o The 100K Soil Remediation project resumed overburden removal at 100-K-60 on July 7, 2020. Approximately 10,175 cubic meters of clean material was removed in July from over top the 100-K-60 pipeline waste site and stockpiled for use as future backfill material.

### RRMP, 324 Building Disposition Project

- Equipment procurements continued for the following:
  - o Cell dams for the 324 Building (completed factory acceptance testing [FAT])
  - 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 (staged for delivery at vendor).
  - o B Cell 10-ton crane.
- The following miscellaneous activities continued:
  - o Essential operations.
  - o Social distancing modifications.
  - o Resumption of work planning.
  - o Contamination event resumption training development.
  - o Temporary alternative work location as appropriate.
- Engineering:
  - o Ongoing support to engineered equipment procurements.
  - o Awarded the contract for acrylamide radiological testing at PNNL.

### Project Technical Services

- Training and Procedures:
  - o Worked with facility subject matter experts (SMEs) to identify procedures affected by the new procedure PRC-PRO-SH-17916, *Industrial Hygiene Exposure Assessments*, to ensure compliance with noise and vibration protection requirements, where those hazards have been identified.
  - o Worked with 324 Project operations management to update procedure 324-PRO-OP-54223, *General Decontamination Guidelines*.
- Readiness and Preparedness issued revision to 324 Facility Emergency Planning Hazards Assessment and Emergency Action Levels.

## MAJOR ISSUES

### Issue

Task Cask Assembly-1 (TCA-1) is currently staged outside of the 105K West Facility and is awaiting disposition. TCA-1 was previously used to support transfer operations between 105K East and 105K West 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-1 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 by 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 the 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 105K West 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. After delays due to RL-directed PSWO Hanford Site response to COVID-19, the support trailer and area around TCA-1 have been setup to facilitate the NDA work. The NDA is currently scheduled for mid-August. Results of the NDA will be used to support FY2022 planning and engineering 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, CHPRC management suspended radiological work beyond essential mission-critical operation activities, pending identification and implementation of revised strategies and controls to reduce the potential of future contaminations.

### Corrective Action

A team of SMEs 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.

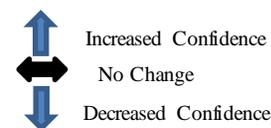
### Status

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

## RISK MANAGEMENT STATUS

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

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



Risk Title	Unmitigated Risk Impacts	Assessment		Comments																								
		Month	Trend																									
<b>RL-0041/WBS-041</b>																												
Explanation of major changes to the project monthly spotlight chart: <span style="color: red;">No significant changes have been made to the spotlight chart in July:</span>																												
<b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)																												
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.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$3,000K, 208 days	<span style="color: red; font-size: 20px;">●</span>	<span style="color: black; font-size: 20px;">↔</span>	<p><b>Risk Event:</b> In August 2019, the REC A/D Crane failed during operations.</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: 8px;"> <thead> <tr style="background-color: #e0e0e0;"> <th>Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Award contract – B Cell 10-ton crane – 324 Building.</td> <td>6/20/19</td> <td>100</td> </tr> <tr> <td>Vendor submit FAT/final data package – B Cell 10-ton crane.</td> <td>4/2/20</td> <td>100</td> </tr> <tr> <td>Vendor delivery to Acquisition Verification Service (AVS) – B Cell 10-ton crane.</td> <td>12/21/20</td> <td>0</td> </tr> <tr> <td>Perform remote decon/survey A Cell and A/D Cranes.</td> <td>4/7/21</td> <td>0</td> </tr> <tr> <td>Perform follow up A Cell and A/D Crane investigation.</td> <td>7/28/21</td> <td>0</td> </tr> <tr> <td>Procure/fabricate A/D Crane parts.</td> <td>8/16/21</td> <td>0</td> </tr> <tr> <td>Perform A/D Crane repair.</td> <td>9/14/21</td> <td>0</td> </tr> </tbody> </table> <p><b>Recovery Assessment:</b> 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 COVID-19 and RL-directed PSWO impacts. The June forecasted completion date for vendor delivery of the B Cell 10-ton Crane to AVS of June 23, 2020 was not completed. The fabrication of the crane is complete; however, AVS is not accepting receipt inspections during the PSWO. <span style="color: red;">The vendor is also in the process of fabricating the B Cell Crane bridge to assist with installation.</span> As a result, the current forecast date for delivery of the crane to AVS is December 21, 2020.</p>	Recovery Action(s)	FC Date	%	Award contract – B Cell 10-ton crane – 324 Building.	6/20/19	100	Vendor submit FAT/final data package – B Cell 10-ton crane.	4/2/20	100	Vendor delivery to Acquisition Verification Service (AVS) – B Cell 10-ton crane.	12/21/20	0	Perform remote decon/survey A Cell and A/D Cranes.	4/7/21	0	Perform follow up A Cell and A/D Crane investigation.	7/28/21	0	Procure/fabricate A/D Crane parts.	8/16/21	0	Perform A/D Crane repair.	9/14/21	0
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Procure/fabricate A/D Crane parts.	8/16/21	0																										
Perform A/D Crane repair.	9/14/21	0																										
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.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Very likely (>90%) <b>Worst Case Impacts:</b> \$225K, 70 days	<span style="color: red; font-size: 20px;">●</span>	<span style="color: black; font-size: 20px;">↔</span>	<p><b>Risk Event:</b> On November 14, 2019, low-level contamination was detected on an individual after exiting a radiological step-off pad (SOP).</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: 8px;"> <thead> <tr style="background-color: #e0e0e0;"> <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>9/30/20</td> <td>25</td> </tr> <tr> <td>Return to Room 18 work – resumption actions.</td> <td>11/2/20</td> <td>10</td> </tr> <tr> <td>Return to airlock work – resumption actions.</td> <td>11/23/20</td> <td>10</td> </tr> </tbody> </table> <p><b>Recovery Assessment:</b> <span style="color: red;">The forecasted completion dates for returning to Room 18 and airlock work were delayed in July due to the impacts of the RL-directed PSWO.</span> Resuming work scope in radiologically controlled areas (RCAs) within the building is pending resolution of recovery actions performed under three distinct group sets: general controlled area, Room 18 and the 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.	9/30/20	25	Return to Room 18 work – resumption actions.	11/2/20	10	Return to airlock work – resumption actions.	11/23/20	10									
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<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)																												
No critical risks are identified in July.																												

Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
<b>RL-0041/WBS-041</b>										
<b>High Risk Threat Value</b> (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 shows contamination levels are much higher or deeper or the material encountered is different from anticipated, then 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.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$3,318K, 256 days	●	↔	<p><b>Risk Event:</b> 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><b>Mitigation Assessment:</b> No significant changes in July. As low as reasonably achievable (ALARA) review evaluations for process improvements were completed in May. Increased personal protective equipment 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								
<b>FY2020 Key Risks</b>										
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/RCA), resulting in unplanned work and subsequently, cost and schedule impacts.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$294.5K, 128 days	●	↔	<p><b>Risk Trigger Metric:</b> 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.</p> <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> <p><b>Mitigation Assessment:</b> No significant changes in July. 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 PM activities are in place to reduce the likelihood of occurrence.</p>	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.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$460K, 96 days	●	↔	<p><b>Risk Trigger Metric:</b> 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.</p> <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Perform B Cell and D Cell door pin isolations.</td> <td>1/18/21</td> <td>0</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> No significant changes in July. 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.</p>	Mitigation Action(s)	FC Date	%	Perform B Cell and D Cell door pin isolations.	1/18/21	0
Mitigation Action(s)	FC Date	%								
Perform B Cell and D Cell door pin isolations.	1/18/21	0								

Risk Title	Unmitigated Risk Impacts	Assessment		Comments												
		Month	Trend													
<b>RL-0041/WBS-041</b>																
RCC-300-296-15, 300-296 Cell Sealing, Micropile Installation, Interference Removal, Core Drilling and Soil Stabilization Takes Longer Than Planned	<p>Unexpected field conditions are encountered during interference removal, sealing of cell penetrations and/or core drilling work scope. The unexpected field conditions subsequently cause in-scope unplanned work and result in schedule impacts to the project.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$3,317.6K, 96 days</p>	●	↔	<p><b>Risk Trigger Metric:</b> The project experiences unexpected field conditions outside its control, impacting cell sealing, micropile installation, interference removal, core drilling and soil stabilization, making it more difficult than planned.</p> <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Mobilize and train 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> <tr> <td>Perform Bond Zone load testing.</td> <td>10/20/20</td> <td>0</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> The forecasted completion date for performance of Bond Zone load testing was delayed in July due to the impacts of the RL-directed PSWO. Mitigation efforts have reduced the probability of risk occurrence from likely to medium. However, due to the uniqueness involved with the work scope, there is potential for unexpected delays and additional pilot-hole drilling efforts. Mobilizing and training of a second soil stabilization crew was completed on December 19, 2019.</p>	Mitigation Action(s)	FC Date	%	Mobilize and train 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	Perform Bond Zone load testing.	10/20/20	0
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														
Perform Bond Zone load testing.	10/20/20	0														
RCC-300-296-06, 300-296 Remote Equipment Failure During Operations	<p>Failures of the following procured equipment: the floor saw, master slave manipulators (MSMs) used in REC cells, Remote Excavator Arms (REA), through supports, cell dams, transfer mechanism and cameras and lights.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Low (10% to 25%) <b>Worst Case Impacts:</b> \$1,336K, 90 days</p>	●	↔	<p><b>Risk Trigger Metric:</b> 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.</p> <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Procure MSM manipulators and storage carts.</td> <td>12/30/19</td> <td>100</td> </tr> <tr> <td>Procure spare upper REA.</td> <td>11/23/20</td> <td>53</td> </tr> <tr> <td>Procure universal cutting tool.</td> <td>12/15/20</td> <td>45</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> Procurement of a spare upper REA and universal cutting tool will mitigate potential impacts to the project in the event of an REA failure. Potential impacts continue to be monitored and assessed for mitigation as project evolutions continue. The estimate to complete is updated monthly to reflect potential impacts of risk being realized.</p>	Mitigation Action(s)	FC Date	%	Procure MSM manipulators and storage carts.	12/30/19	100	Procure spare upper REA.	11/23/20	53	Procure universal cutting tool.	12/15/20	45
Mitigation Action(s)	FC Date	%														
Procure MSM manipulators and storage carts.	12/30/19	100														
Procure spare upper REA.	11/23/20	53														
Procure universal cutting tool.	12/15/20	45														
RCC-300-296-33, Increased Rad Exposure to Workers	<p>High dose in the airlock causes excessive radiation exposure to personnel, resulting in in-scope unplanned work impacts of cost and/or schedule.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Low (10% to 25%) <b>Worst Case Impacts:</b> \$240K, 36 days</p>	●	↔	<p><b>Risk Trigger Metric:</b> 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-inch bins.</td> <td>8/20/20</td> <td>30</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> The forecast completion date for the procurement of specialized containers (GC/44-inch bins) was delayed in July due to the impacts of the RL directed PSWO. 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-inch bins.	8/20/20	30			
Mitigation Action(s)	FC Date	%														
Continue the use of increased shielding and ALARA controls.	Ongoing	N/A														
Procurement of specialized containers – GC/44-inch bins.	8/20/20	30														

Risk Title	Unmitigated Risk Impacts	Assessment		Comments												
		Month	Trend													
<b>RL-0041/WBS-041</b>																
100K-SR-05, Unexpected Site Conditions	<p>Unexpected site conditions are encountered during soil excavation activities, resulting in recovery actions, causing unplanned and project in-scope work and schedule delays.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$760K, 32 days</p>	●	↔	<p><b>Risk Trigger Metric:</b> 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><b>Mitigation Assessment:</b> No significant change in July. 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														
<b>Unsigned Risks</b> (Pending ownership of identified risks/opportunities)																
No unsigned risks identified in July.																

## 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	11.7	8.5	11.0	(3.2)	-27.5%	(2.5)	-29.3%

Numbers rounded to the nearest \$0.1 million.

#### CM Schedule Performance (-\$3.2M/-27.5%)

The unfavorable schedule variance for the 324 Building Disposition Project and KBO Project 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 essential mission-critical 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). Most RL-0041 fieldwork is not considered essential mission-critical operations. Therefore, activities were demobilized and placed in a 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) 041.97.01.04.01 to collect and segregate unproductive time caused by the PSWO. The majority of Earned Value Management is based on physical progress in the field. As a result, minimal performance was taken, causing the unfavorable schedule variance.

#### CM Cost Performance (-\$2.5M/-29.3%)

The unfavorable cost variance for the 324 Building Disposition Project and KBO Project are the result of the PSWO issued to CHPRC by RL on March 24, 2020. The PSWO covered non-portable work activities not associated with essential mission-critical 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. Non-portable work activities consist of work that cannot be performed in a remote manner (e.g., telework from home). CHPRC and subcontractor labor assigned to the work scope that could not be performed in a remote manner were charged to WBS 041.97.01.04.01 to collect and segregate unproductive time caused by the PSWO. As a result, costs were incurred while minimal performance was taken, causing 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	786.9	762.2	763.1	(24.7)	-3.1%	-0.9	-0.1%	808.2	809.6	46.5	-1.3

Numbers are rounded to the nearest \$0.1 million.

### CTD Schedule Performance (-\$24.7/-3.1%)

The CTD schedule variance is within reporting thresholds.

### CTD Cost Performance (-\$0.9/-0.1%)

The CTD cost variance is within reporting thresholds.

### Variance at Completion (-\$1.3/-0.2%)

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	145.0	5.9

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 June. The spending forecast decreased \$1.4 million from June, which was primarily due to planned subcontracted work being delayed to FY2021 due to the impacts of COVID-19 and the RL-directed PSWO.

### 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	Actual 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

None currently identified.

# 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

July 2020  
CHPRC-2020-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

The Fast Flux Test Facility (FFTF) is being held in a low-cost surveillance and maintenance (S&M) condition by the Central Plateau Risk Management Project. During the July reporting period, FFTF continued to maintain essential mission-critical operations 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 coronavirus (COVID-19).

## 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

- Completed 480B P-14 and P-15 pump motor calibration.
- Completed the annual 400 Area egress lighting inspection/test.
- Electricians disconnected all three light plants at FFTF. Light plants have been taken off rent and hauled offsite by a local vendor.
- Two new Haulmark trailers were delivered to 4707 in the 400 Area to be staged for outfitting.
- Performed 2-year smoke detector testing of the 402 Facility.
- Performed a 1-year preventative maintenance inspection for the 402 Facility fire alarm control unit.
- Performed a 12-month test/inspection at the 402 Facility.
- Performed a 12-month linear beam smoke detector testing of the 402 Facility.

## 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 to replace the diesel engine 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 Request for Proposal has been issued to solicit prospective engineering firms for evaluation performance. The contract award is anticipated in August.

## RISK MANAGEMENT STATUS

None currently identified.

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

RL-0042 FFIF 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	0.4	0.3	0.3	(0.1)	-29.9%	(0.0)	-3.4%

Numbers are rounded to the nearest \$0.1 million.

### CM Schedule Performance: (-\$0.1M/-29.9%)

The CM schedule variance is within reporting thresholds.

### CM Cost Performance: (-\$0.0M/-3.4%)

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	31.5	31.2	26.4	(0.2)	-0.7%	4.9	15.7%	32.3	27.6	1.2	4.8

Numbers are rounded to the nearest \$0.1 million.

### CTD Schedule Performance: (-\$0.2M/-0.7%)

The CTD schedule variance is within reporting thresholds.

### CTD Cost Performance: (+\$4.9M/+15.7%)

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: (+\$4.8M/+14.7%)

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	3.5	1.3

Numbers are rounded to the nearest \$0.1 million.

### Funds Analysis

Fiscal year 2020 projected funding of \$4.8 million includes support for electrical component failures and configuration challenges, interest by regulators requiring additional inspections and a recent failure of the water system/water piping. The spending forecast of \$3.5 million aligns with the RL Integrated Priority List. The \$200K reduction in the spending forecast from June reflects work delays associated with the RL-directed PSWO.

### 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*



July 2020  
CHPRC-2020-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

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

DOLLARS IN

Thousands of \$

FORM APPROVED  
OMB No. 0704-0188

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>										
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME Plateau Remediation Contract		a. FROM (YYYYMMDD) 2020 / 06 / 22										
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2020 / 07 / 26										
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO X YES (YYYYMMDD) 2009 / 09 / 18												
<b>5. CONTRACT DATA</b>																
a. QUANTITY 1	b. NEGOTIATED COST 6,852,614	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 7,802	d. TARGET PROFIT/FEE 298,170	e. TARGET PRICE 7,150,784	f. ESTIMATED PRICE 7,121,774	g. CONTRACT CEILING 7,150,784	h. ESTIMATED CONTRACT CEILING 7,121,774									
<b>6. ESTIMATED COST AT COMPLETION</b>				<b>7. AUTHORIZED CONTRACTOR REPRESENTATIVE</b>												
		MANAGEMENT ESTIMATE AT COMPLETION (1) 6,775,407	CONTRACT BUDGET BASE (2) 6,860,416	VARIANCE (3) 36,812	a. NAME (Last, First, Middle Initial) Underwood, Teresa		b. TITLE Prime Contract Compliance Manager									
a. BEST CASE				c. SIGNATURE		d. DATE SIGNED (YYYYMMDD)										
b. WORST CASE																
c. MOST LIKELY																
<b>8. PERFORMANCE DATA</b>																
CAPN.PBS	CURRENT PERIOD					CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL	VARIANCE		BUDGETED COST		ACTUAL	VARIANCE					BUDGETED	ESTIMATED	VARIANCE
ITEM (1)	WORK SCHEDULED (2)	WORK PERFORMED (3)	COST WORK PERFORMED (4)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	COST WORK PERFORMED (9)	SCHEDULE (10)	COST (11)	COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	(14)	(15)	(16)
RL-0011 Nuclear Mat Stab & Disp PFP	0	0	1,504	0	-1,504	1,143,564	1,129,875	1,242,350	-13,689	-112,475	0	0	0	1,143,564	1,254,711	-111,147
RL-0012 SNF Stabilization & Disp	0	0	0	0	0	759,593	759,593	729,812	0	29,780	0	0	0	759,593	729,812	29,780
RL-0013 Solid Waste Stab & Disp	21,542	15,600	13,780	-5,942	1,820	1,639,509	1,618,011	1,534,661	-21,497	83,351	0	0	0	1,675,271	1,592,563	82,708
RL-0030 Soil & Water Rem-Grndwtr/Vadose	12,005	8,737	8,295	-3,268	442	1,735,131	1,712,018	1,663,264	-23,113	48,754	0	0	0	1,755,126	1,703,447	51,679
RL-0040 Nuc Fac D&D - Remainder Hanfrd	8,300	5,784	9,696	-2,516	-3,911	619,396	600,133	598,505	-19,262	1,628	0	0	0	638,075	657,761	-19,686
RL-0041 Nuc Fac D&D - RC Closure Proj	11,722	8,498	10,986	-3,224	-2,489	786,911	762,212	763,085	-24,699	-872	0	0	0	808,243	809,553	-1,310
RL-0042 Nuc Fac D&D - FTF Proj	405	284	294	-121	-10	31,484	31,250	26,353	-234	4,897	0	0	0	32,315	27,558	4,756
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	53,975	38,903	44,555	-15,072	-5,652	6,715,588	6,613,092	6,558,030	-102,496	55,063	0	0	0	6,812,187	6,775,407	36,780
f. MANAGEMENT RESERVE																
g. TOTAL	53,975	38,903	44,555	-15,072	-5,652	6,715,588	6,613,092	6,558,030	-102,496	55,063	0	0	0	6,860,384		
<b>9. RECONCILIATION TO CONTRACT BUDGET BASELINE</b>																
a. VARIANCE ADJUSTMENT																
b. TOTAL CONTRACT VARIANCE																

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

CLASSIFICATION (When Filled In)

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

DOLLARS IN Thousands of \$

FORM APPROVED  
OMB No. 0704-0188

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME Plateau Remediation Contract		a. FROM (YYYYMMDD) 2020 / 06 / 22	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2020 / 07 / 26	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> X <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18			

WBS.Resp Org Group	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)																	
34 - Env Program & Strategic Ping	875	1,580	1,278	705	302	111,160	109,453	102,087	-1,707	7,365	0	0	0	112,820	104,329	8,491	
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	10,118	0	-10,118	1,111	1,111	64,522	0	-63,411	0	0	0	1,111	66,425	-65,314	
37 - Resource Mgmt & Strategic Intg	125	125	91	0	34	9,670	9,670	6,428	0	3,241	0	0	0	9,926	6,686	3,240	
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	5,038	1,961	4,005	-3,076	-2,044	1,065,761	1,045,732	1,161,553	-20,030	-115,821	0	0	0	1,076,214	1,211,074	-134,861	
3C - Waste & Fuels Management Project	17,143	11,146	8,971	-5,997	2,175	1,430,390	1,412,616	1,319,925	-17,774	92,691	0	0	0	1,456,833	1,364,922	91,911	
3D - Soil & Groundwater Remediation	11,098	7,125	5,942	-3,973	1,183	1,522,002	1,500,595	1,444,150	-21,406	56,446	0	0	0	1,540,272	1,482,028	58,244	
3G - K Basin Oper & Plateau Remediation Project	5,862	4,386	4,328	-1,476	59	1,037,665	1,028,376	991,734	-9,288	36,643	0	0	0	1,048,010	1,012,181	35,830	
3H - River Risk Management Project	10,197	8,503	4,941	-1,694	3,562	391,361	372,226	385,086	-19,134	-12,859	0	0	0	411,539	421,981	-10,442	
3K - Central Plateau Risk Reduction	3,636	4,076	4,880	440	-804	551,094	537,938	529,817	-13,156	8,120	0	0	0	560,088	553,055	7,033	
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)	53,975	38,903	44,555	-15,072	-5,652	6,715,588	6,613,092	6,558,030	-102,496	55,063	0	0	0	6,812,187	6,775,407	36,780	
f. MANAGEMENT RESERVE														48,197			
g. TOTAL	53,975	38,903	44,555	-15,072	-5,652	6,715,588	6,613,092	6,558,030	-102,496	55,063	0	0	0	6,860,384			



CLASSIFICATION (When Filled In)

**CONTRACT PERFORMANCE REPORT  
FORMAT 4 - STAFFING**

Dollars In: FTE

FORM APPROVED  
OMB No. 0704-0188

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME Plateau Remediation Contract		a. FROM (YYYYMMDD)	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		2020 / 06 / 22	
		c. TYPE CPAF		d. SHARE RATIO		b. TO (YYYYMMDD)	
				c. EVMS ACCEPTANCE NO <input type="checkbox"/> X YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18		2020 / 07 / 26	

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 AUG 2020 (4)	+2 SEP 2020 (5)	+3 OCT 2020 (6)	+4 NOV 2020 (7)	+5 DEC 2020 (8)	+6 JAN 2021 (9)	FEB 2021 (10)	MAR 2021 (11)	APR 2021 (12)	MAY 2021 (13)	ATCOMPLETE (14)		
300 - Office of the President	15	2,316	13	13	0	0	-	-	-	-	-	-	-	-	2,342
303 - Internal Audit	4	637	4	4	-	-	-	-	-	-	-	-	-	-	645
304 - General Counsel	4	584	3	3	-	-	-	-	-	-	-	-	-	-	591
32 - Safety Health Security & Quality	58	9,049	68	68	-	-	-	-	-	-	-	-	-	-	9,184
34 - Env Program & Strategic Plng	31	6,174	46	43	-	-	-	-	-	-	-	-	-	-	6,264
35 - Business Services	52	8,598	57	58	-	-	-	-	-	-	-	-	-	-	8,713
36 - Prime Contract & Proj Integr	558	8,212	37	37	-	-	-	-	-	-	-	-	-	-	8,286
37 - Resource Mgmt & Strategic Intg	41	3,718	43	43	-	-	-	-	-	-	-	-	-	-	3,804
38 - Project Technical Services	38	9,140	42	42	-	-	-	-	-	-	-	-	-	-	9,225
3B - PFP Closure Project	132	55,102	191	196	252	230	180	180	135	111	107	80	175	56,938	
3C - Waste & Fuels Management Project	322	61,503	411	402	19	8	16	23	5	11	1	0	1	62,400	
3D - Soil & Groundwater Remediation	199	44,818	246	260	85	54	31	23	9	3	1	1	70	45,600	
3G - K Basin Oper & Plateau Remediation Project	132	36,001	212	221	54	51	41	50	36	6	34	13	6	36,726	
3H - River Risk Management Project	122	10,644	222	217	35	31	29	25	25	28	13	10	130	11,409	
3K - Central Plateau Risk Reduction	142	21,816	259	258	29	17	2	1	0	0	-	-	-	22,383	
<b>g. TOTAL DIRECT</b>	<b>1,849</b>	<b>278,312</b>	<b>1,853</b>	<b>1,867</b>	<b>475</b>	<b>392</b>	<b>298</b>	<b>302</b>	<b>210</b>	<b>159</b>	<b>156</b>	<b>104</b>	<b>381</b>	<b>284,508</b>	

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

CLASSIFICATION (When Filled In)									
CONTRACT PERFORMANCE REPORT FORMAT 5 - EXPLANATIONS AND PROBLEM ANALYSES								FORM APPROVED OMB No. 0704-0188	
<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>			<b>3. PROGRAM</b>			<b>4. REPORT PERIOD</b>	
<b>a. NAME</b> CH2MHILL Plateau Remediation Company		<b>a. NAME</b> Plateau Remediation Contract			<b>a. NAME</b> Plateau Remediation Contract			<b>a. FROM (YYYY/MM/DD)</b>  2020/06/22	
<b>b. LOCATION (Address and ZIP Code)</b>  Richland, WA 99354		<b>b. NUMBER</b> DE-AC06-08RL14788		<b>b. PHASE</b> Base			<b>b. TO (YYYY/MM/DD)</b>  2020/07/26		
		<b>c. TYPE</b> CPAF	<b>d. SHARE RATIO</b>		<b>c. EVMS ACCEPTANCE</b> 2009/09/18 NO YES X				
	<b>BCWS</b>	<b>BCWP</b>	<b>ACWP</b>	<b>SV in \$</b>	<b>SV in %</b>	<b>CV in \$</b>	<b>CV %</b>	<b>SPI</b>	<b>CPI</b>
<b>Current:</b>	53,975	38,903	44,555	(15,072)	-27.9%	(5,652)	-14.5%	0.72	0.87
<b>Cumulative:</b>	6,715,588	6,613,092	6,558,030	(102,496)	-1.5%	55,063	0.8%	0.98	1.01
	<b>BAC</b>	<b>EAC</b>	<b>VAC in \$</b>	<b>VAC in %</b>	<b>TCPI</b>				
<b>At Complete:</b>	6,812,187	6,775,407	36,780	0.5%	0.92				
<b>Explanation of Variance/Description of Problem:</b>									
<b>Current Period Schedule and Cost Variance:</b> The current month 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 essential mission-critical 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 Washington State phased reopening by county. Non-portable work activities are work that cannot be performed in a remote manner (e.g., telework from home). 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 segregated. 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.									
<b>Cumulative Schedule Variance:</b> The variance is within reporting thresholds.									
<b>Cumulative Cost Variance:</b> The variance is within reporting thresholds.									
Impact:									
<b>Current Period Schedule:</b> The current month schedule variance is not expected to impact the overall contract schedule.									
<b>Current Period Cost:</b> Cost impacts are being estimated and will be incorporated in the project estimate to complete (ETC).									
<b>Cumulative Schedule:</b> N/A									
<b>Cumulative Cost:</b> N/A									
<b>Corrective Action:</b>									
<b>Current Period Schedule:</b> No corrective actions have been identified.									
<b>Current Period Cost:</b> No corrective actions necessary.									
<b>Cumulative Schedule:</b> N/A									
<b>Cumulative Cost:</b> N/A									
<b>Monthly Summary</b> (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 \$36.8 million is projected, with an additional \$48.2 million of management reserve (MR) for a total positive variance of \$85.0 million. For July, the project was 27.9 percent behind schedule and 14.5 percent over planned cost. Contract to date the project was 1.5 percent behind schedule and 0.8 percent under planned cost.									
There was no difference between the Contract Budget Base and the Total Allocated Budget on Format 3 for the month of July. The \$32K delta is a result of rounding over time for implementation of multiple change order definitizations									
Three BCRs were implemented in the current period: BCR-040-20-012R0, Incorporate Preparation of B Plant CERCLA Documents BCR-PRC-20-021R0, Mod 745 Implementation - Fee Adjustment BCRA-PRC-20-020R0, HPIC Updates July FY2020									
<b>Contractually Required Cost, Schedule, EAC variance, Management Reserve Use</b>									
Variance in Performance BAC and EAC: The VAC between the BAC and EAC this month is a +\$36.0 million, +0.5% and is within reporting thresholds.									

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

**Format 1 and 3 Contract Data:**

**Contract Price Adjustments**

CPS - In Process		
	Total Authorized Unpriced Work	\$7,802
Approved Adjustments to Contract Price (not reflected in B.4-1 Table)		
	Total Negotiated Cost Changes	-
	Grand Total Adjustments	7,802

**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

**Management Reserve Activity**

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

**Fee Activity**

BCR Number	Title	PBS	Fiscal Year	Fee
BCR-PRC-20-021R0	<i>MOD 745 Implementation – Fee Adjustment</i>	40, 41	2020	-\$6,900.0K

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

<b>Prepared by:</b> Project Control Staff	<b>Date:</b> 8/18/2020	<b>Approved by:</b>	<b>Date:</b>
--	---------------------------	---------------------	--------------

# Appendix B

## Project Services and Support (WBS 000)

**CH2MHILL**  
Plateau Remediation Company



M. T. Hughey  
Vice President for  
Safety, Health, Security  
and Quality

M. A. Wright  
Vice President for  
Project Technical  
Services

July 2020  
CHPRC-2020-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

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

D. J. Henderson  
Director of  
Communications

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

M. W. Wells  
Vice President for  
Business Services  
Chief Financial Officer

D. A. Gray  
Vice President for  
Resource Management  
and Strategic Integration

This section is reported quarterly.

# Appendix C

## Capital Asset Project

**CH2MHILL**  
**Plateau Remediation Company**

*a Jacobs company*



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

July 2020  
CHPRC-2020-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

# Appendix C.2

## Capital Asset Project

### RL-0011.C2 - Demolition of PFP Facilities



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

July 2020  
CHPRC-2020-07, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

In July, the Plutonium Finishing Plant (PFP) Closure Project team continued essential mission-critical operations 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). Essential mission-critical operations consisted of a survey of PFP radiological boundaries, applying soil fixative to the PFP demolition area and performing equipment maintenance. Workers also resumed shipments of previously loaded radioactive waste. Twenty-six containers of final-phase demolition debris were shipped to the Environmental Restoration Disposal Facility (ERDF) for permanent disposal, including 20 Contaminated Equipment – Special Package Authorization shipments of containers of Plutonium Reclamation Facility (PRF) debris.

<i>Key Metrics</i>	<i>Current Month Plan</i>	<i>Current Month Actuals</i>	<i>Cumulative Plan</i>	<i>Cumulative Actuals</i>
<b>COMPLETE</b> Cold and Dark/Demo Ready activities for 234-5Z	-	-	1	1
<b>COMPLETE</b> Cold and Dark/Demo Ready activities for 236-Z	-	-	1	1
<b>COMPLETE</b> Cold and Dark/Demo Ready activities for 242-Z	-	-	1	1
<b>COMPLETE</b> Cold and Dark/Demo Ready activities for 291-Z	-	-	1	1
<b>COMPLETE</b> Cold and Dark/Demo Ready activities for the PFP Ancillary Facilities	-	-	15	15
<b>COMPLETE</b> Demolition of 234-5Z	-	-	1	1
<b>COMPLETE</b> Demolition of 236-Z	-	-	1	-
<b>COMPLETE</b> Demolition of 242-Z	-	-	1	1
<b>COMPLETE</b> Demolition of 291-Z	-	-	1	1
<b>COMPLETE</b> 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, and on March 24, 2020, RL issued a PSWO as a part of the Hanford Site response to COVID-19. The PFP site was transitioned to essential mission-critical operations and has maintained that configuration. Essential mission-critical operations in July consisted of completion of required surveillance and maintenance (S&M) activities to protect government property and maintain safety and environmental compliance. These efforts included surveying PFP radiological boundaries, applying fixative to the PFP demolition area and performing equipment maintenance.
- Shipped 26 containers of final-phase demolition debris to ERDF for permanent disposal, including 20 containers of PRF rubble debris.
- Crews worked on the disposition of legacy waste, including neutralizing and re-packaging batteries for disposition.

## MAJOR ISSUES

**Issue**

The project’s fiscal year (FY) 2020 forecast reflects spending approximately \$5.4 million more than the entire allotted funding carryover balance. Additional funding is required in FY2020.

**Corrective Action**

Resolve funding shortfall. Personnel assigned to the PFP Project were shifted to support the West Area Remediation Project (WARP) in RL-0040 when the personnel returned to work in June to conserve the limited personal protective equipment (PPE) inventory following 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 reduce the near-term RL-0011 spending rate until this issue is resolved.

**Status**

RL reallocated an additional \$9.2 million (\$500 million from RL-0012, and \$8.7 million from RL-0030) in July, increasing FY2020 funding from \$34.4 million to \$43.6 million, which is sufficient for the current spending forecast of \$39.8 million. This issue is considered closed and will not be reported in future 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.

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

	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
<b>RL-0011/C.2</b>													
<b>Explanation of major changes to the project monthly stoplight chart:</b>													
No major changes to the stoplight chart in July.													
<b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)													
PFP-P5-007: Delay of PRF Debris Load Out	The loadout of PRF debris is delayed.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$0, 32 days	●	↔	<b>Risk Event:</b> 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.  <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="width: 70%;">Risk Recovery Action(s)</th> <th style="width: 15%;">FC Date</th> <th style="width: 15%;">%</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> <b>Recovery Action Assessment:</b> No major changes in July. 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. Loadout of PRF debris is on hold due to the PSWO, with resumption expected in October 2020.	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											
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)													
No critical risks identified in July.													
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)													
No high threat risks identified in July.													

Unmitigated Risk Impacts		Assessment		Comments															
		Month	Trend																
<b>RL-0011/C.2</b>																			
<b>FY2020 Key Risks</b>																			
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.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Low (10% to 25%) <b>Worst Case Impacts:</b> \$0, 20 days	●	↔	<p><b>Risk Trigger:</b> 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><b>Mitigation Assessment:</b> No major changes in July. There were no weather events that impacted the project in July.</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																	
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.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$0, 16 days	●	↔	<p><b>Risk Trigger:</b> 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><b>Mitigation Assessment:</b> No major changes in July. 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																	
<b>Unassigned Risks (Pending ownership of identified threats/opportunities)</b>																			
No unassigned risks identified in July.																			

## CRITICAL PATH ANALYSIS

The PFP critical path schedule begins with the completion of PRF loadout, which is anticipated by December 8, 2020, meeting the requirements for the *Hanford Federal Facility Agreement and Consent Order* 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 March 10, 2021.

## 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	5/18/2021	Work resumption is expected in late September due to a phased resumption approach and to conserve personal protective equipment in response to 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

July 2020  
CHPRC-2020-07, Rev. 0  
Contract DE-AC07-08RL14788  
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

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

DOLLARS IN Thousands of \$

FORM APPROVED  
OMB No. 0704-0188

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>			<b>4. REPORT PERIOD</b>								
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL_0011_C2 PFP Demolition Capital Asset Project			a. FROM (YYYYMMDD) 2020 / 06 / 22								
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE			b. TO (YYYYMMDD) 2020 / 07 / 26								
		c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO X YES (YYYYMMDD) 2009 / 09 / 18									
<b>5. CONTRACT DATA</b>															
a. QUANTITY 1	b. NEGOTIATED COST 131,476	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 7,802	d. TARGET PROFIT/FEE 5,000	e. TARGET PRICE 136,476	f. ESTIMATED PRICE 186,325	g. CONTRACT CEILING 136,476	h. ESTIMATED CONTRACT CEILING 186,325	i. DATE OF OTB/OTS (YYYYMMDD)							
<b>6. ESTIMATED COST AT COMPLETION</b>				<b>7. AUTHORIZED CONTRACTOR REPRESENTATIVE</b>											
		MANAGEMENT ESTIMATE AT COMPLETION (1)	CONTRACT BUDGET BASE (2)	VARIANCE (3)	a. NAME (Last, First, Middle Initial) Underwood, Teresa			b. TITLE Prime Contract Compliance Manager							
a. BEST CASE		180,752			c. SIGNATURE			d. DATE SIGNED (YYYYMMDD)							
b. WORST CASE		184,927													
c. MOST LIKELY		181,325	139,278	-42,047											
<b>8. PERFORMANCE DATA</b>															
CAPN.PBS Control Account.PARS 2 WBS (2)		CURRENT PERIOD				CUMULATIVE TO DATE				REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
ITEM (1)		BUDGETED COST	ACTUAL COST WORK PERFORMED	VARIANCE	BUDGETED COST	ACTUAL COST WORK PERFORMED	VARIANCE	COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)		
		WORK SCHEDULED (2)	WORK PERFORMED (3)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	SCHEDULE (10)	COST (11)						
RL-0011 Nuclear Mat Stab & Disp PFP															
RL_0011_C2.05 Disposition PFP Facility		0	0	0	-548	138,704	125,431	-13,274	-45,649	0	138,704	180,752	-42,047		
b. COST OF MONEY		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		
d. UNDISTRIBUTED BUDGET															
e. SUBTOTAL		0	0	0	-548	138,704	125,431	-13,274	-45,649	0	138,704	180,752	-42,047		
f. MANAGEMENT RESERVE											573				
g. TOTAL		0	0	0	-548	138,704	125,431	-13,274	-45,649	0	139,278				
<b>9. RECONCILIATION TO CONTRACT BUDGET BASELINE</b>															
a. VARIANCE ADJUSTMENT															
b. TOTAL CONTRACT VARIANCE										-13,274 -45,649 139,278 180,752 -41,474					

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

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

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL_0011_C2 PFP Demolition Capital Asset Project		a. FROM (YYYYMMDD)  2020 / 06 / 22	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD)  2020 / 07 / 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	0	548	0	-548	138,704	125,431	171,080	-13,274	-45,649	0	0	0	138,704	180,752	-42,047	
<b>b. COST OF MONEY</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>c. GENERAL AND ADMINISTRATIVE</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>d. UNDISTRIBUTED BUDGET</b>																	
<b>e. SUBTOTAL (Performance Measurement Baseline)</b>	0	0	548	0	-548	138,704	125,431	171,080	-13,274	-45,649	0	0	0	138,704	180,752	-42,047	
<b>f. MANAGEMENT RESERVE</b>														573			
<b>g. TOTAL</b>	0	0	548	0	-548	138,704	125,431	171,080	-13,274	-45,649	0	0	0	139,278			

CLASSIFICATION (When Filled In)

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 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: 2020/06/22 b. TO: 2020/07/26									
5. CONTRACT DATA																				
a. ORIGINAL NEGOTIATED COST 51,683			b. NEGOTIATED CONTRACT CHANGE \$79,792		c. CURRENT NEGOTIATED COST (A + B) \$131,476		d. ESTIMATED COST AUTH UNPRICED WORK \$7,802		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 Aug-20 (4)	+2 Sep-20 (5)	+3 Oct-20 (6)	+4 Nov-20 (7)	+5 Dec-20 (8)	+6 Jan-21 (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	0	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	138,705		
7. MANAGEMENT RESERVE																		573		
8. TOTAL																		139,278		

**CONTRACT PERFORMANCE REPORT  
FORMAT 4 - STAFFING**

Dollars in: FTE

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

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL_0011_C2 PFP Demolition Capital Asset Project		a. FROM (YYYYMMDD)  2020 / 06 / 22	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD)  2020 / 07 / 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 AUG 2020 (4)	+2 SEP 2020 (5)	+3 OCT 2020 (6)	+4 NOV 2020 (7)	+5 DEC 2020 (8)	+6 JAN 2021 (9)	FEB 2021 (10)	MAR 2021 (11)	APR 2021 (12)	MAY 2021 (13)	TCOMPLETE (14)		
3B - PFP Closure Project	3	4,990	17	4	87	86	66	42	23	-	-	-	-	-	5,314
<b>g. TOTAL DIRECT</b>	<b>3</b>	<b>4,990</b>	<b>17</b>	<b>4</b>	<b>87</b>	<b>86</b>	<b>66</b>	<b>42</b>	<b>23</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5,314</b>

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) 2020/06/22		
b. LOCATION (Address and ZIP Code) Richland, WA	b. NUMBER RL14788			b. PHASE			b. TO (YYYYMMDD) 2020/07/26		
	c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE No X Yes (YYYYMMDD) 2009 / 09 / 18						
<b>Direct Projects</b>									
5. Evaluation	Budget	Earned	Actuals	SV in \$	SV in %	CV in \$	CV in %	SPI	CPI
Current:	0.0	0.0	547.6	0.0	0	-547.6	0	0	0.00
Cumulative:	138,704.4	125,430.5	171,079.7	-13,273.8	-9.6%	-45,649.1	-36.4%	0.90	0.73
	BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:	138,704.4	180,751.8	-42,047.4	-30.3%	0	1.37			
<b>Explanation of Variance/Description of Problem:</b>									
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 essential mission-critical 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.									
<b>Impact:</b>									
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.									
<b>Corrective Action:</b>									
Demolition and load out activities are expected to resume in October 2020 when personal protective equipment is expected to be available. The current slab on grade date is December 8, 2020.									
<b>Monthly Summary (to include technical causes of VARs, Impacts) and Corrective Action(s):</b>									
There was no change in the difference between the Contract Budget Base and the Total Allocated Budget on Format 3 for the month of July.									
The following items are addressed, as applicable:									
1. Schedule Margin Analysis: No drawdowns of schedule margin were made in the month of July.									
2. Data dictionary Changes: No change in the month of July.									
3. Forecast Schedule with No Baseline: No change in the month of July.									
4. UB Balance: No change in the month of July.									
5. Negative Actual Cost of Work Performed (ACWP): No change in the month of July.									
6. Earned Actual Cost (EAC) Analysis: Best Case = \$180,752; Most Likely = \$181,325; Worst Case = \$184,927. 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.									
7. Negative CV > VAC: No change in the month of July.									
8. Management Reserve Transactions: No change in the month of July.									
9. Freeze Period Changes: No change in the month of July.									
10. Retroactive Changes: No change in the month of July.									
11. Earned Value Type Changes: No change in the month of July.									
Prepared by: Jason Knowlton			Date: 8/12/2020			Approved by:			Date: