

# Monthly Performance Report

September 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 1:49 pm, Oct 22, 2020*

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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

**September 2020**  
CHPRC-2020-09, Revision 0

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## EXECUTIVE SUMMARY

CH2M HILL Plateau Remediation Company (CHPRC) advanced cleanup throughout the Hanford Site during September. 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 RL-directed PSWO, CHPRC has taken and continues to take reasonable actions to protect and provide support to the workforce. On August 27, 2020, CHPRC received authorization from RL to begin implementing Phase 2 of the remobilization plan starting August 31, 2020. All employees performing low risk non-portable work activities have returned to normal work locations, 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. The Office of Project Management (PM) completed a combined Independent Cost Review (ICR) and External Independent Review (EIR) in support of the RL-0011.C2, PFP Demolition Project Baseline Change Proposal, for the project. Based on the overall results of the ICR and EIR, PM concurred with the project and validated the project's revised performance baseline. The ICR/EIR team concluded that the project is sufficiently prepared for the resumption of work when adequate personal protective equipment (PPE) is available and Hanford Site conditions allow.



Workers are celebrating another year of significant progress in protecting the Columbia River. Fiscal year 2020 marks the sixth consecutive year that CHPRC has treated more than 2 billion gallons of groundwater.

- **Waste and Fuels Management (W&FM) Project:** The W&FMP continued to perform essential mission-critical operations and a partial, phased resumption of work in compliance with the RL-directed PSWO. *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) Milestone M-091-03N, Submit Revision of TRUM Waste and MLLW PMP to Ecology, was completed. The W-135 Management of Cesium and Strontium Capsule (MCSC) Project and Capsule Storage Area subproject continued construction of the capsule storage pad, trenching and conduit placement for the temperature monitoring system, and installation of rebar and placement of concrete was completed. Waste and Encapsulation Storage Facility (WESF) crane maintenance activities were completed and design activities to stabilize the canyon decontamination sink were initiated. Crane maintenance activities at T Plant were completed. Inlet filter change-outs prompted by high-soot loading was accomplished at WESF, T Plant and the Canister Storage Building.

- **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. Drilling crews completed two boreholes within the 200-DV-1 Operable Unit (OU) and four monitoring wells within the 100-HR-3 OU, completing the Tri-Party Agreement Milestone M-024-71, Complete the Construction of All Wells Listed for CY20 and Before. The 200-CP-1 Remedial Investigation/Feasibility Study was transmitted to RL, completing Tri-Party Agreement Milestone M-085-80, Submit Remedial Investigation/Feasibility Study Work Plan for 200-CP-1 to Ecology. Transmitted the 300-FF-5 OU Enhanced Attenuation Uranium Sequestration Completion Report to RL, concluding the multi-year, multi-phase, first-of-its-kind project, which used real-time electro resistivity tomography monitoring to track the delivery of polyphosphate solution into groundwater to sequester uranium within the 300-FF-5 OU. The Cumulative Impact Evaluation Technical Approach Document was transmitted to RL establishing the framework for developing an advanced modeling toolset that is integrated and automated, to enable the evaluation of cumulative impacts to groundwater from potential sources, including existing groundwater contamination. The certified *Resource Conservation and Recovery Act of 1976* Permit Closure Plans for land based units 216-A-29 Ditch, 216-B-3 Pond, 216-S-10 Pond and Ditch, and 216-B-63 Trench were transmitted to RL. The new 200-ZP-1 air stripper tower was received at the 200 West Pump and Treat (P&T) facility. The additional stripper tower is crucial to the out-year goal to achieve a flow rate of 3,750 gpm at the 200 West P&T Facility.
- **K Basins Operations (KBO):** At KBO, essential mission-critical operations and a partial, phased resumption of work were continued in compliance with the RL-directed PSWO. The fabricated Vertical Pipe Casing (VPC) equipment to be utilized for debris removal was delivered. The VPC equipment will be stored until garnet filter media retrieval is complete. In the 400 Area, a new well pump for potable water was installed and tested. The pump is expected to be in service in October. The mockup was received in the 100K Area in preparation for the 105K West sand filter media sampling. The 100K Soil Remediation group excavated and stockpiled 3,578 m<sup>3</sup> of overburden material and completed overburden removal from the 100-K-60 waste site.
- **River Risk Management Project:** The project continued essential mission-critical operations in compliance with the RL-directed PSWO. Development of the planning materials for Room 18 contamination area/high contamination area/airborne radiation areas was initiated. 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 (IDF) infrastructure upgrades continued as water and sewer system installation nears completion and mobile offices are installed and ready for utilities. Electrical and communication installation is ramping up while steady progress is being made on earthwork and fencing. Annual equipment calibrations were completed on the IDF leachate collection and removal system. Environmental Restoration Disposal Facility permanently disposed of the last demolition waste from the 234-5Z portion of PFP. Since September 2018, there have been 946 containers (14,435 tons) disposed using enhanced controls, including respiratory protection.
- **Central Plateau Risk Management Project:** The project continued essential mission-critical operations and a partial, phased resumption of work in compliance with the RL-directed PSWO. The Aging Structures team completed the work package and mockup to perform investigations for the 216-Z-2 crib and 241-Z-361 tank, initiated mobilization in the field, and continued to fabricate and assemble the ventilation system. At the Reduction-Oxidation (REDOX) Facility, crews completed the installation of the new shower trailer, setup of the step-off pad trailer, configuration of the personal contamination monitoring equipment, ultrasonic testing of the 276S hexone lines to confirm the lack of liquids within the lines, and mechanically isolated the chemical bridge from 211S to 202S. Additionally, crews completed pouring the slab for the REDOX temporary ventilation system and construction of the REDOX East Container Transfer Area. Field crews at

the 224B Facility completed roof anchor installations, erection of the asbestos containment tent on the second and third floors, and made significant progress on removal of hazardous material from the clean-side of the facility. Finally, the Plutonium Uranium Extraction Plant North team completed the 211A entry and electrical investigations and removed a communication line north of 202A.

- **West Area Remediation Project (WARP):** The project continued essential mission-critical operations and a partial, phased resumption of work in compliance with the RL-directed PSWO. The WARP team completed the hazardous waste removal, demolition and debris loadout of two former mobile office trailers, MO2110 and MO2118, in the south trailer village. Crews also began the electrical and mechanical isolations for 234-5Z-BA and 234-5Z-BE boiler annexes, completed characterization and sampling for the south trailer village, and continued hazardous waste removal on the remaining trailers.

The President's Zero Accident Council (PZAC) meeting for September was hosted by Project Technical Services via virtual meeting. The three main ideas were:

- Be prepared at work
- Be prepared at home
- Always be prepared

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

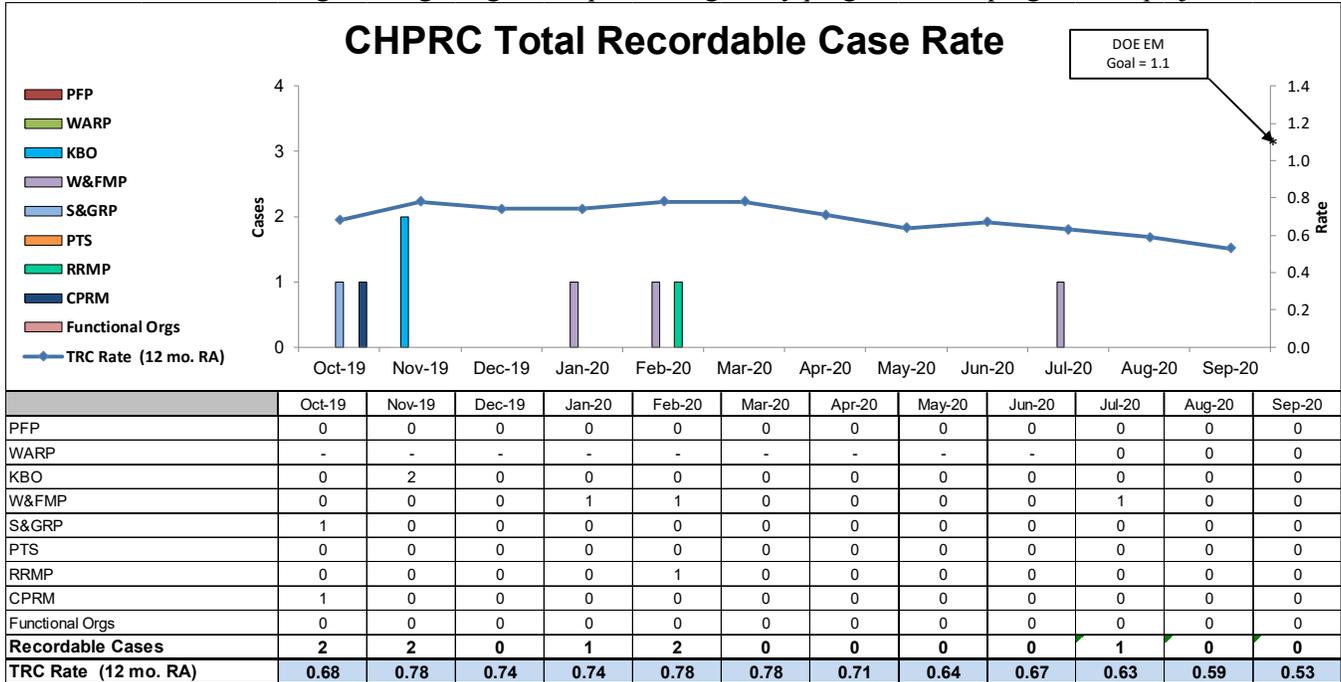
- Managing risks
- National fall prevention
- Autumn safety
- Environmental compliance

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

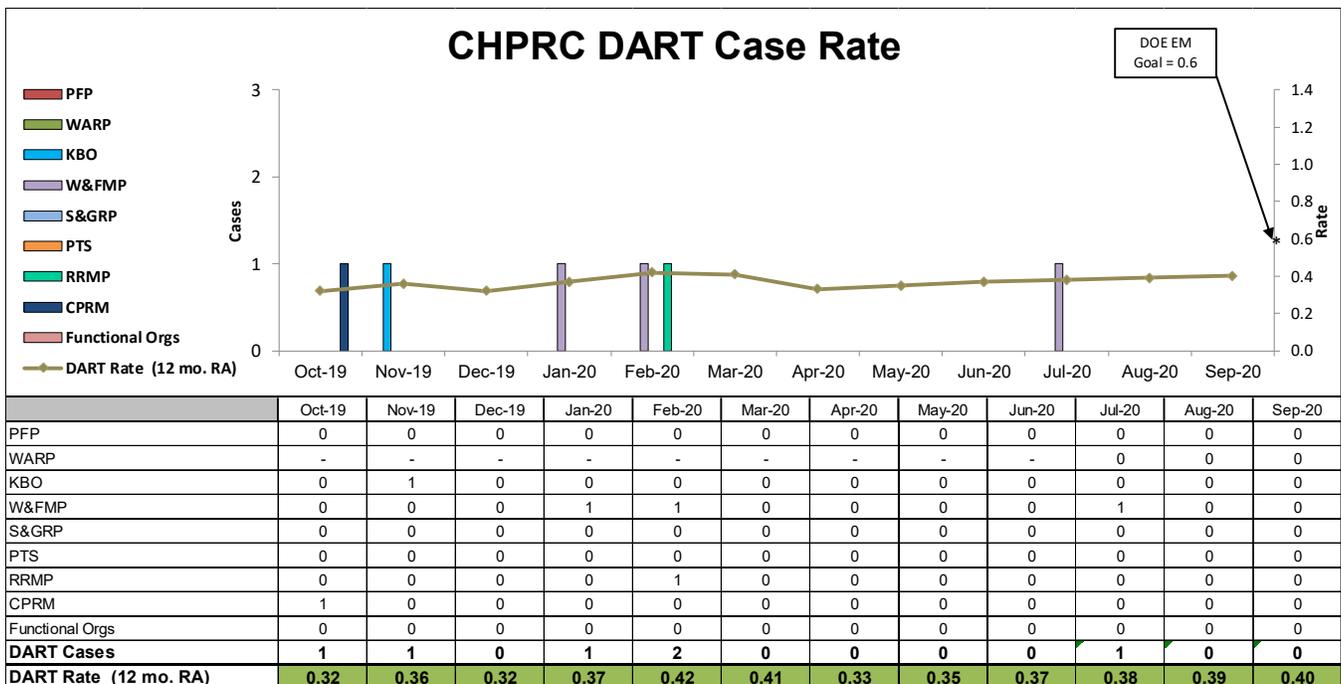
- Three Lessons Learned:
  - OPEXShare: 2020-SGRP-0003 Communication Ensures New LOTO Devices are Evaluated and Error Precursors Identified.
  - OPEXShare: 2020-Nevada National Security Site-738 Process Improvements/Planning Result in Reduced Time/Resources for Shipping Radioactive Material.
  - OPEXShare: 2020-NV-NNSS-737 Operating the Radioactive Waste Management Site with COVID-19 Safety Protocols.
- Injuries
- Weekly ethics moments
- Vehicle events, safety policy, safety incidents
- Safety re-focus special edition - REFOCUS ON SAFETY
- Stop and reflect
- Risk behaviors
- Your responsibilities
- A commitment to focus
- Distractions, facing distractions
- Adhering to COVID controls
- Habits
- Watch for wildlife
- Fall prevention
- Learning Management System
- Return to work SAFELY
- Transition information
- Commit to focus
- Top ten error precursors
- Safety responsibility
- How to deal with change
- Required National Institute for Occupational Safety and Health labeling
- HPMC drive-up flu clinic
- Emergency vehicles – yielding to emergency vehicles is the law!
- Safe driving reminders, Report unsafe driving

## TARGET ZERO PERFORMANCE

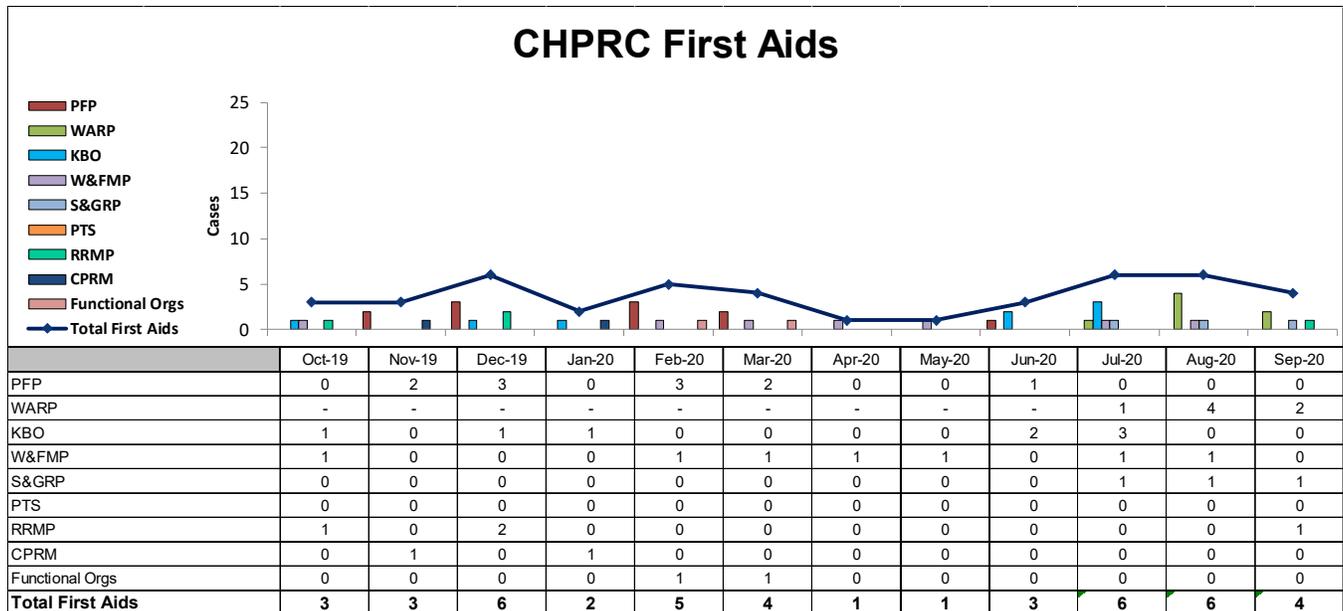
CHPRC continued focusing on integrating and implementing safety programs in all program and project areas.



Total Recordable Injury Case (TRC) Rate: The 12-month rolling average TRC rate of 0.53 is based on eight Recordable injuries. September had no reported OSHA Recordable cases.



Days Away, Restricted or Transferred (DART) Workdays Case Rate: The 12-month rolling average DART rate of 0.40 is based on six Days Away cases. September had no reported DART cases. The DART rate has increased due to a steady number of cases and the decrease in working hours during mission critical operations.



First Aid Case Summary: CHPRC reported four first aid cases in September. The contributors were two abrasions/bruises/contusions, one strains/sprains/pains and one insect bite 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. RL authorized CHPRC on August 27, 2020, to implement Phase 2 of the remobilization plan starting August 31, 2020. On September 24, 2020, RL issued letter 20-PRO-0297, informing CHPRC that the PSWO would expire on September 30, 2020. 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 fiscal year (FY) 2020 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).

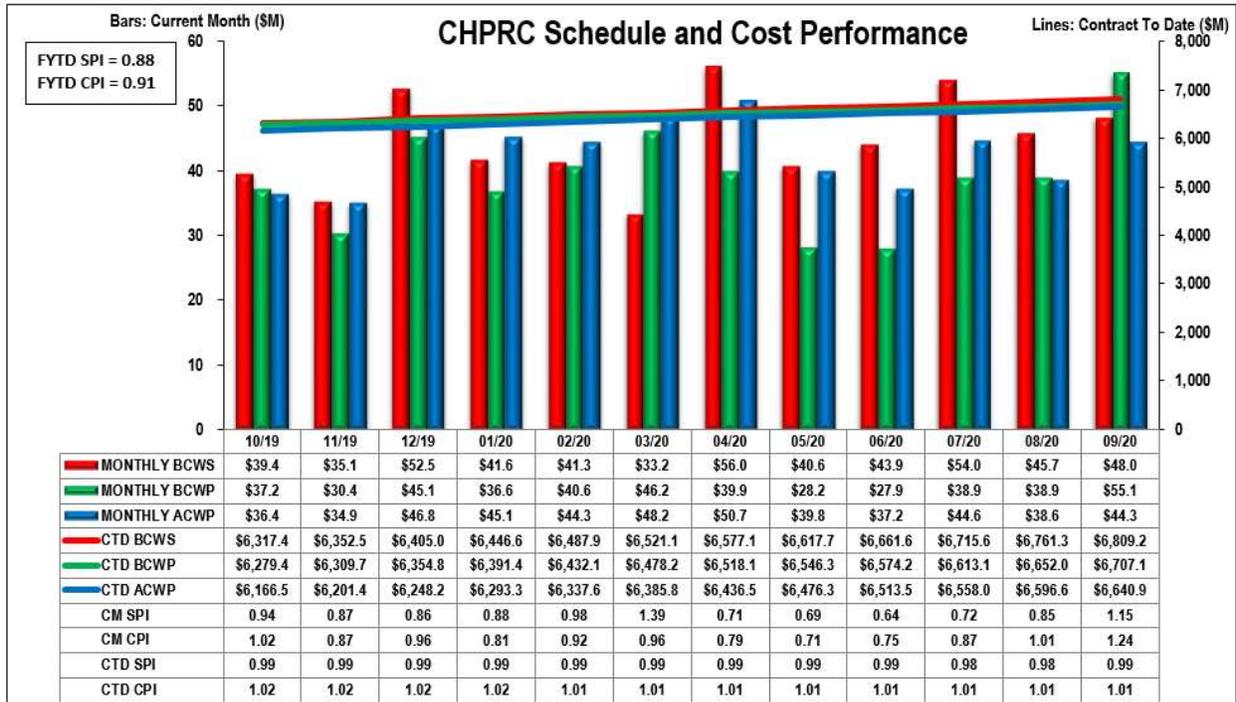
### **Corrective Action**

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 continued implementation of actions to mitigate work delays and disruption and cost-effectively address unanticipated impacts to programmatic work. CHPRC is continuing to collect costs associated with COVID-19 impacts in separate financial account(s). 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 the information requests and deliverables can be anticipated and addressed in a timely manner should they occur. CHPRC policies and procedures to address COVID-19 and new training for returning workers continue to be updated to reflect Lessons Learned and changing conditions. Deliverables in response to COVID-19 and the PSWO 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 has both cost and schedule impacts on the work planned for FY2020 and FY2021. During September, CHPRC worked with RL on adjustments to the staffing remobilization plan, implemented Phase 2 and achieved the goal of returning all workers performing non-portable tasks back to work. Essential mission-critical operations, low and medium-risk field activities, and base operations are being performed on the Hanford Site. High-risk field activities that require significant PPE have not resumed. These work scopes are being reviewed on a weekly basis and require approval by RL. Portable work continues to be performed via teleworking. The extension of the Coronavirus Aid, Relief, and Economic Security Act (CARES) Act to December 11, 2020, allows workers performing non-portable tasks who are directed to isolate by a medical professional due to COVID-19 symptoms, potential COVID-19 exposure, and/or pending COVID-19 testing results will continue to be able to be paid without the need to take time out of their personal time bank (PTB). Not being required to take PTB is expected to encourage workers to stay home, reducing the potential of passing COVID-19 to others at the work place. 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			
	BCWS	BCWP	ACWP	Schedule	Cost	BCWS	BCWP	ACWP	Schedule	Cost	BAC	EAC	Variance	
RL-0011 - Nuclear Materials Stab & Disp PFF	(9.3)	2.0	(0.6)	11.3	2.6	1,134.3	1,131.9	1,242.6	(2.4)	(110.7)	1,149.5	1,262.4	(112.8)	
RL-0012 - SNF Stabilization & Disposition	0.0	0.0	0.0	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	21.1	21.8	17.0	0.6	4.8	1,677.1	1,654.8	1,565.2	(22.3)	89.6	1,677.1	1,590.2	86.8	
RL-0030 - Soil & Water Rem-Grndwtr/Vadose	10.8	12.5	7.2	1.7	5.3	1,755.1	1,733.2	1,677.4	(21.9)	55.8	1,755.1	1,698.3	56.8	
RL-0040 - Nuc Fac D&D - Remainder	12.6	7.9	10.8	(4.7)	(3.0)	642.6	615.4	617.8	(27.2)	(2.4)	642.6	644.7	(2.1)	
RL-0041 - Nuc Fac D&D - RC Closure Project	12.3	10.6	9.7	(1.7)	0.9	808.2	780.3	781.3	(27.9)	(0.9)	808.2	818.0	(9.7)	
RL-0042 - Nuc Fac D&D - FFTF Project	0.5	0.4	0.2	(0.1)	0.2	32.3	31.9	26.8	(0.4)	5.2	32.3	26.9	5.4	
(Values are rounded to the nearest \$0.1M)	<b>Total</b>	<b>48.0</b>	<b>55.1</b>	<b>44.3</b>	<b>7.2</b>	<b>10.8</b>	<b>6,809.2</b>	<b>6,707.1</b>	<b>6,640.9</b>	<b>(102.1)</b>	<b>66.2</b>	<b>6,824.5</b>	<b>6,770.4</b>	<b>54.1</b>

### Performance Summary

CHPRC continues to track completion of the contract within budget. Currently, a variance at completion of \$54.1 million is projected, with an additional \$43.5 million of management reserve (MR) for a total positive variance of \$97.6 million. For September, the project was 14.9 percent ahead of schedule and 19.7 percent under planned cost. Contract to date, the project was 1.5 percent behind schedule and 1.0 percent under planned cost.

The current month (CM) positive cost variance is primarily due to an over-liquidation of the labor adder pool. The September passback is a combination of three pools: the absence (ABS) pool, the continuity of service (COS) pool, and the continuity of pension (COP) pool. All pools over-liquidated in FY2020. The COS and COP pool over-liquidations occurred due to lower than expected pool costs (e.g., Hanford Employee Welfare Trust [COS and COP] and workers compensation [COS]). The ABS pool over-liquidation is primarily due to lower-than-expected non-PTB absences (e.g., R time, EA time, jury duty) than planned based on prior year

actuals. These distributions impacted every account that had labor cost. Additionally, a general and administrative (G&A) rate over-liquidation was distributed in September. The G&A over liquidation was due to lower pool costs resulting from the transfer of indirect COVID-19 costs to direct accounts and the positive labor variance distributions.

The CM positive schedule variance is primarily the result of the implementation of the revised scope, cost and schedule baseline for the completion of the RL-0011.C2 project planned for completion in May 2021, which resulted in negative budgeted cost for work scheduled for the CM. This variance was partially offset by high-risk/high PPE use scope, which has not resumed.

## FUNDING ANALYSIS

### FY2020 Funds vs. Fiscal Year Spend Forecast

(\$M)

PBS	Project	FY2020		Variance
		Total Funding	Actual Cost	
RL-0011	Nuclear Materials Stabilization and Disposition	43.6	38.0	5.6
RL-0012	Spent Nuclear Fuel Stabilization and Disposition	0.1	(0.1)	0.1
RL-0013	Waste and Fuels Management Project	197.9	172.1	25.8
RL-0013	Management of Cesium and Strontium Capsules	2.3	1.2	1.1
RL-0030	Soil, Groundwater and Vadose Zone Remediation	112.2	94.0	18.2
RL-0040	Nuclear Facility D&D, Remainder of Hanford	91.1	80.4	10.7
RL-0041	Nuclear Facility D&D, River Corridor	148.5	140.3	8.2
RL-0042	Fast Flux Test Facility Closure	4.8	2.9	1.9
<b>Total Fiscal Year Spending Forecast</b>		<b>600.3</b>	<b>528.7</b>	<b>71.6</b>

#### Funds/Variance Analysis

FY2020 funding increased \$79 thousand from last month for a total final funding of \$600.3 million. Actual costs were \$17.3 million under the August spending forecast, primarily driven by the year-end variance passbacks, increasing carryover funding to \$71.6 million.

## BASELINE CHANGE REQUESTS

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

Change Request#	Title	PBS	Summary of Change
BCR-011C-020-002R1	<i>PFP CAP 2 Project Completion Update</i>	RL-0011.C2	This BCR implemented a revised scope, cost and schedule baseline for the completion of the RL-0011.C2 project and re-planned the remaining scope of FY2021. This BCR changed the FY2020 baseline by adding scope for impacts of the PSWO and setting remaining historical BCWS equal to the BCWP. CHPRC conducted risk elicitations and performed a fully integrated cost and schedule quantitative risk analysis following 413.3-7A, Risk Management Guide practices. The results recommended a FY2021 MR allocation of \$6,302.4K for the remaining scope of the RL-0011.C2 Project. This BCR established the \$6,302.4K of MR for the RL-0011.C2 Project (RL-0011.C2 current MR total of \$573.1K, RL-0041 MR transfer of \$5,729.3K, for a revised total of \$6,302.4K MR in RL-0011.C2 Project). This BCR increased the PMB by \$5,978.9K.
BCR-011C-20-004R0	<i>Move Balance of FY2020 Management Reserve to FY2021 – PFP C2</i>	RL-0011.C2	This BCR moved the remaining FY2020 MR into FY2021 for the PFP CAP 2 Project. It was determined that during FY2020, CHPRC did not experience all anticipated risks to justify the need for MR in FY2020 for the PFP CAP 2 Project. This BCR did not change the PMB.
BCR-013-20-025R0	<i>Prepare Tank 11 Closure Plan and Remove T Plant CERCLA Documents</i>	RL-0013	This BCR removed FY2020 planned scope that will not be completed within this FY and added new RL-directed Tank 11L Closure Plan scope. This BCR did not change the PMB value.
BCR-013-20-029R0	<i>W135 MCSC Project MR Draw to Address Use Tax Against Fabrication Contracts</i>	RL-0013	This BCR drew down MR and revised the FY2020 PMB to incorporate additional costs of previously unrecognized Washington State Use Tax against the future costs of the MCSC Project fabrication contract. The current FY2020 W-135 Project PMB was based on the best information available at the time, which indicated Use Tax was not applicable to the fabrication procurement. Historical costs will be addressed as a cost variance to maintain performance-reporting standards. This BCR increased the PMB by \$1,014.3K.
BCR-PRC-20-023R0	<i>Move Balance of FY2020 Management Reserve to FY2021 - OA</i>	RL-0011 RL-0013 RL-0030 RL-0040 RL-0041 RL-0042	This BCR moved the remaining FY2020 MR into FY2021 for the non-capital asset project (OA) scope. During FY2020, CHPRC did not experience all anticipated risks, resulting in a carryover value for MR. This BCR did not change the PMB.
BCRA-PRC-20-024R0	<i>HPIC Updates September 2020</i>	RL-0013 RL-0030 RL-0040 RL-0041	This BCR incorporated September FY2020 Hanford Programs Integrated Control Module (HPIC) updates. This BCR did not change the PMB value.

The allocated (distributed) budget increased \$6,993.2K.

**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 September.

**Management Reserve (MR) Activity**

BCR Number	Title	PBS	Fiscal Year	MR
BCR-011C-20-004R0	<i>Move Balance of FY2020 Management Reserve to FY2021 - PFP C2</i>	RL-0011.C2	2020	(\$573.1K)
			2021	\$573.1K
BCR-011C-020-002R1	<i>PFP CAP 2 Project Completion Update</i>	RL-0041 RL-0011.C2	2020	(\$5,729.3K)
			2021	\$5,729.3K
BCR-013-20-029R0	<i>W135 MCSC Project MR Draw to Address Use Tax Against Fabrication Contracts</i>	RL-0013	2020	\$1,014.3K
BCR-PRC-20-023R0	<i>Move Balance of FY2020 Management Reserve to FY2021 - OA</i>	RL-0011	2020	(\$29,292.8K) \$29,292.8K
		RL-0013		
		RL-0030	2021	
		RL-0040		
		RL-0041		
RL-0042				

The MR decreased \$1,014.3 in September.

**Fee Activity**

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

There was no change to the Fee in September.

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.

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

	FY 2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FYs 2014-2018	FY2019	FY2020	FY2021	Contract Period Total	Total PMB
<b>August 2020 Estimate</b>												
PMB	3,391.5	391.7	471.3	504.8	485.0	470.6	2,323.5	563.1	539.5	0.0	6,817.5	6,817.5
MR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.5	0.0	44.5	44.5
Fee	155.5	14.3	14.5	27.8	10.6	18.9	86.1	36.5	20.1	0.0	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>604.1</b>	<b>0.0</b>	<b>7,160.2</b>	<b>7,160.2</b>
<b>September 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	-8.3	15.3	7.0	7.0
<b>MR</b>												
Change to MR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-36.6	35.6	-1.0	-1.0
<b>Fee</b>												
Change to Fee	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<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>-44.9</b>	<b>50.9</b>	<b>6.0</b>	<b>6.0</b>
<b>September 2020 Estimate</b>												
PMB	3,391.5	391.7	471.3	504.8	485.0	470.6	2,323.5	563.1	531.2	15.3	6,824.5	6,824.5
MR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	35.6	43.5	43.5
Fee	155.5	14.3	14.5	27.8	10.6	18.9	86.1	36.5	20.1	0.0	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>559.2</b>	<b>50.9</b>	<b>7,166.1</b>	<b>7,166.1</b>

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

	FY2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2014-2018	FY2019	FY2020	FY2021	Total
<b>August 2020 MR Totals</b>											
RL-0011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	5.5
RL-0012	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	0.0	5.4
RL-0013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	7.6
RL-0030	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	3.6
RL-0040	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	0.0	8.4
RL-0041	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.6	0.0	13.6
RL-0042	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	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>44.5</b>	<b>0.0</b>	<b>44.5</b>
<b>September 2020 MR Changes/Utilization</b>											
RL-0011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.1	8.8	5.7
RL-0012	0.0	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	-7.6	6.6	-1.0
RL-0030	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.6	3.6	0.0
RL-0040	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-8.4	8.4	0.0
RL-0041	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-13.5	7.8	-5.7
RL-0042	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.5	0.5	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>-36.6</b>	<b>35.6</b>	<b>-1.0</b>
<b>September 2020 MR Totals</b>											
RL-0011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	8.8	11.2
RL-0012	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	0.0	5.4
RL-0013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6	6.6
RL-0030	0.0	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	0.0	8.4	8.4
RL-0041	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	7.8	7.8
RL-0042	0.0	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>7.9</b>	<b>35.6</b>	<b>43.5</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 - 9/30/2020					
Reporting Category					
	\$ Value	%	Goal %		
SB	\$1,779.87	57.01%	49.3%	PRC clause H.20b small business requirement ≥ 17% of CHPRC Contract Price performed by SB.	
SDB	\$342.56	10.97%	8.2%		
SWOB	\$312.53	10.01%	7.5%	CHPRC Contract Value: \$7,249.87 SB actual: \$1,779.87 SB Performed %: 24.55%	
HUB	\$105.45	3.38%	2.2%		
VOSB	\$275.93	8.84%	3.5%	PRC clause H.20a max self performed requirement ≤ 65% of Contract Price Self Performed	
SDVO	\$181.93	5.83%	1.3%		
NAB	\$118.81	3.81%	N/A	CHPRC Contract Value: \$7,249.87 CHPRC Self Performed: \$4,421.70 CHPRC Self Performed %: 60.99%	
Large	\$839.13	26.88%	N/A		
GOVT	\$6.01	0.19%	N/A		
GOVT CONT	\$483.23	15.48%	N/A		
EDUCATION	\$0.17	0.01%	N/A		
NONPROFIT_	\$4.50	0.14%	N/A		
FOREIGN	\$8.91	0.29%	N/A		
<b>Total</b>	<b>\$3,121.83</b>	<b>100.00%</b>	<b>N/A</b>		

Notes:

1. Since the contract award in October 2008, CHPRC has subcontracted more than \$3.1 billion in goods and services, with more than 57 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, Radioactive Material Transportation Practices Manual for Use with DOE O 460.2A. 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**

**September 2020**  
**CHPRC-2020-09, Rev. 0**  
**Contract DE-AC06-08RL14788**  
**Deliverable C.3.1.3.1 - 1**

## PROJECT SUMMARY

In September, 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). All PFP personnel returned to the Hanford Site in September. Essential mission-critical operations consisted of a survey of PFP radiological boundaries, re-applying soil fixative to the PFP demolition site, and performing equipment maintenance.

### 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	0 m <sup>3</sup>	23,507 m <sup>3</sup>

### 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	11	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 has maintained that configuration through this month. Essential mission-critical operations in September consisted of the 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 and performing equipment maintenance.
- Crews continued work on the disposition of legacy waste.
- The Office of Project Management (PM) completed a combined Independent Cost Review (ICR) and External Independent Review (EIR) in support of the RL-0011.C2, *PFP Demolition Project Baseline Change Proposal (BCP)*, for the project. Based on the overall results of the ICR and EIR, PM concurred with the project and validated the project's revised performance baseline. The ICR/EIR team concluded that the project is sufficiently prepared for the resumption of work when adequate personal protective equipment (PPE) is available and site conditions allow.

## MAJOR ISSUES

None currently identified.

## RISK MANAGEMENT STATUS

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

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

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

	Unmitigated Risk Impacts	Assessment			Comments														
		Month	Trend																
<b>RL-0011</b>																			
<b>Explanation of major changes to the project monthly spotlight chart:</b> Risk PFP-P5-007, <i>Delay of Plutonium Reclamation Facility (PRF) Debris Load Out</i> , was moved from the realized risk section to the key risk section of the spotlight chart.																			
<b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)																			
No realized risks identified in <b>September</b> .																			
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)																			
No critical risks identified in <b>September</b> .																			
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)																			
No high threat risks identified in <b>September</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	<span style="color: green; font-size: 20px;">●</span>	<span style="color: black; font-size: 20px;">↔</span>	<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: 5px;"> <thead> <tr> <th style="width: 70%;">Mitigation Action(s)</th> <th style="width: 15%;">FC Date</th> <th style="width: 15%;">%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <b>Mitigation Assessment:</b> No major changes in <b>September</b> . No weather events impacted the project in <b>September</b> .	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	<span style="color: green; font-size: 20px;">●</span>	<span style="color: black; font-size: 20px;">↔</span>	<b>Risk Trigger:</b> During PFP demolition activities, an increase in stop works could result in delays.  <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 5px;"> <thead> <tr> <th style="width: 70%;">Mitigation Action(s)</th> <th style="width: 15%;">FC Date</th> <th style="width: 15%;">%</th> </tr> </thead> <tbody> <tr> <td>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 <b>September</b> . 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																	
FP-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	<span style="color: green; font-size: 20px;">●</span>	<span style="color: black; font-size: 20px;">↔</span>	<b>Risk Trigger:</b> The project experiences delays to PRF debris load out, impacting project completion.  <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 5px;"> <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>Mitigation Assessment:</b> This risk was moved from the “Realized Risk” section to the “Key Risk” section of the spotlight chart. With the approved re-baseline of the PFP CAP 2 project, PRF debris loadout is no longer considered to be behind schedule. However, the risk remains a key risk for project completion.	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>Unassigned Risks</b> (Pending ownership of identified threats/opportunities)																			
No unassigned risks identified in <b>September</b> .																			

## 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	(9.3)	2.0	(0.6)	11.3	-121.5%	2.6	131.2%

Numbers are rounded to the nearest \$0.1 million.

#### CM Schedule Variance: (+11.3M/-121.5%)

The CM positive schedule variance is due to the negative BCWS acquired as a result of the implementation of baseline change request BCR-011C-20-002R1, *PFP CAP 2 Project Completion Update*, that implemented a revised scope, cost and schedule baseline for the completion of the RL-0011.C2 project. The BCR set the remaining historical BCWS equal to BCWP as of June 22, 2020.

#### CM Cost Variance: (+\$2.6M/+131.2%)

The CM positive cost variance is due to an over-liquidation of the labor adder pool. The September passback is a combination of three pools: the absence (ABS) pool, the continuity of service (COS) pool, and the continuity of pension (COP) pool. All pools over liquidated in FY2020. The COS and COP pool over-liquidations occurred due to lower-than-expected pool costs (e.g., Hanford Employee Welfare Trust [COS and COP] and workers compensation [COS]). The ABS pool over-liquidation is primarily due to lower-than-expected non-personal time bank absences (e.g., R time, EA time, jury duty) based on prior year actuals. These distributions impacted every account that had labor cost. Additionally, a general and administrative (G&A) rate over-liquidation was also distributed in September. The G&A over-liquidation was due to lower pool costs resulting from the transfer of indirect COVID-19 costs to direct accounts and the positive labor variance distributions.

## 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	1,134.3	1,131.9	1,242.6	(2.4)	-0.2%	(110.7)	-9.8%	1,149.5	1,262.4	19.8	(112.8)

Numbers are rounded to the nearest \$0.1 million.

#### CTD Schedule Variance: (-\$2.4M/-0.2%)

The CTD schedule variance is within threshold.

#### CTD Cost Variance: (-\$110.7M/-9.8%)

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) 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 project was demobilized and placed in a safe configuration in late March 2020 due to the RL-directed PSWO. 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): (-\$112.8M/-9.8%)**

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		
	Total Funding	Actual Cost	Variance
Spending Forecast	43.6	38.0	5.6

Numbers are rounded to the nearest \$0.1 million.

### Funds/Variance Analysis

The FY2020 variance of \$5.6 million reflects funding of \$43.6 million and actual costs of \$38.0 million. The FY2020 actual costs reflect a decrease of \$1 million from the August spending forecast primarily due to the unanticipated labor rate variance redistribution and G&A passback, which caused significant credit to costs.

### Critical Path Analysis

The PFP critical path schedule begins with the completion of PRF loadout, which is forecast to occur by March 9, 2021, 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 and turnover to S&M and project closeout activities, completing by June 24, 2021. The activities were pushed due to the phased resumption of work from the PSWO as well as PPE limitations.

## MILESTONE STATUS

The following table is a one-year look ahead to project breakdown structure 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		3/9/2021	Work resumption is planned in the revised DOE O 413.3B, <i>Program and Project Management for the Acquisition of Capital Assets</i> , Critical Decision (CD)-2 and CD-3 package pending RL approval for early October based on a phased resumption approach and to conserve PPE in response to COVID-19 impacts. The forecast date reflects the unanticipated continuing impacts of COVID-19, which are anticipated to preclude work resumption as planned in the CD-2 and CD-3 package.

## 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

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

**M. A. Wright**  
Vice President for  
Project Technical Services

September 2020  
CHPRC-2020-09, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

In the September reporting period (August 24 – September 30, 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 September:

- The Management of Cesium and Strontium Capsule (MCSC) Project, W-135, Capsule Storage Area (CSA) Project continued construction of the capsule storage pad (CSP). Trenching and conduit placement for the temperature-monitoring system (TMS), installation of rebar and placement of concrete for the CSP was completed.
- Completed Waste and Encapsulation Storage Facility (WESF) crane maintenance activities and initiated design activities to stabilize the canyon decontamination sink.
- T Plant crane maintenance activities were completed. Inlet filter change-outs prompted by high soot loading was accomplished at WESF, T Plant and the Canister Storage Building (CSB).
- Integrated Disposal Facility (IDF) infrastructure upgrades continued as the water and sewer system installation nears completion. Mobile offices are installed and ready for utilities. Installation of electrical and communications is ramping up, while steady progress is being made on earthwork and fencing. Annual equipment calibrations were completed on the leachate collection and removal system (LCRS). Environmental Restoration and Disposal Facility (ERDF) disposed of the last demolition waste from the 234-5Z portion of the Plutonium Finishing Plant. Since September 2018, there have been 946 containers (14,435 tons) disposed using enhanced controls including respiratory protection.

## EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
20-EMS-WFMP-OBJ1-P1	Complete installation of the Maintenance and Storage Facility (MASF) integrated testing mockup and demobilization.	Erect mockup structure and demobilization.	9/30/2020	20%
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	79%
20-EMS-RRMP-OBJ1-P1	Track maintenance/recycling activities at the ERDF (e.g., used oil recycling, tires, batteries and product drums).	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	100%

## TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred (DART)	0	3*	*1 DART, Project Technical Services (PTS) in support of RL-0013. *1 DART, Mission Support Alliance, LLC (MSA) in support of RL-0013.
Total Recordable Injuries	0	0	N/A
First Aid Cases	1	10	9/28/2020 – Employee tripped on rope and fell to the right knee and elbow. Employee was taken to HPM Corporation, received wound skin care and returned to work without restrictions. (25570)
Near Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### Waste and Fuels Management Project

#### 13.01 Project Management

- On September 23, 2020, CHPRC formally submitted comments on the WESF draft permit to the Washington State Department of Ecology (Ecology). The comments resulted from CHPRC review of the draft permit, which was available for public comment from August 3, 2020, through September 30, 2020.

#### 13.02 Capsule Storage and Disposition

- Completed crane maintenance activities and initiated design activities to stabilize the canyon decontamination sink.
- Ventilation air inlet filter change-outs prompted by high soot loading associated with air pollution caused by wildfires was accomplished.
- Completed 68 preventative maintenance (PM) packages.

#### 13.03 Canister Storage Building (CSB)

- Ventilation air inlet filter change-outs prompted by high soot loading associated with air pollution caused by wild fires was accomplished.
- Completed 37 PM packages.

#### 13.06 TRU Repackaging

- Repackaging of 496.7m<sup>3</sup> TRU/TRUM waste fiscal year to date (FYTD) was completed as of the end of September.

#### 13.07 Waste Receiving and Processing

- Shipped one 1800TL waste box containing radioactive waste from the Waste Receiving and Processing (WRAP) to Perma-Fix Northwest (PFNW) for treatment and repackaging of the waste.
- Completed 297 surveillances and 26 PM packages.

**13.08 T Plant**

- Crane maintenance activities were completed.
- Inlet filter change-outs prompted by high soot loading was accomplished.
- Shipped one roll-on/roll-off waste box containing radioactive waste from T Plant to ERDF for permanent disposal of the waste.
- Completed 536 surveillances and 41 PM packages.

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

- Completed paperwork on six (12 FYTD) of 15 nondestructive assay boxes in Outside Storage Area-A.
- Shipped eight standard waste boxes containing radioactive waste from the Central Waste Complex (CWC) to PFNW for treatment and repackaging of the waste.
- Shipped three standard waste boxes containing treated radioactive waste ready for permanent disposal from PFNW to the CWC.
- Completed 404 surveillances and 31 PM packages.

**13.16 Offsite Spent Nuclear Fuel Disposition**

- Maintained coordination of offsite spent nuclear fuel disposition.

**13.21 Mixed-Waste Disposal Trenches**

- Received six boxes full of treated radioactive waste from PFNW into Mixed Waste Trench 31 in two shipments.
- Completed 163 surveillances.

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

- With the support of PTS, the following progress was made on MCSC subproject construction activities:
  - Trenching and conduit placement for the TMS and installation of rebar for the CSP was completed.
  - Completed the concrete pour for the CSP.
  - Commenced setting operating pad (OP) formwork and rebar.
  - Continued raw water line excavation and installation, and commenced installing two fire hydrants along 7<sup>th</sup> Street.
  - Continued installing conduit at CSB for the TMS annunciator panel.
  - Completed the MO2267 install.

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

- Received 2,519 tons of waste for disposal.
- Received 34,395 tons of waste for disposal FYTD. Any corrections in previous months are reflected in this total.
- Container maintenance performed annual inspections/seal changes on 89 containers and corrective maintenance on 29 containers.
- ERDF operations disposed of 69 containers of the enhanced ramp.

**13.12 Integrated Disposal Facility**

- Care and Custody
  - Completed calibration of Cell 1 and Cell 2 LCRS, leak detection system and secondary leak detection system level transmitters.

- Completed calibration of Cell 1 and Cell 2 Leachate Storage Tank level transmitter and the Drexelbrook level element.
- Completed calibration of Cell 1 and Cell 2 Crest Pad Buildings and Leachate Transfer Buildings' pressure indicators.
- Performed two significant storm event inspections.
- IDF Operational Readiness
  - Construction with the help of PTS.
    - Continued to make progress on utility installation for water sewer, electrical and communication.
    - Work continued on constructing the inspection buildings.
    - Work was initiated on the LCRS.
  - Environmental
    - Completed four Waste Storage Area (WSA) inspections.
    - Completed one WSA inspection with emphasis on fugitive dust control.

## 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.

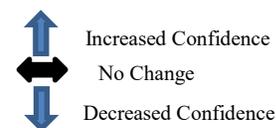
### Status

Continued 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 resumption of TRU commercial repackaging, allowing shipments to PFNW for repackaging to continue into fiscal year (FY) 2021.

## 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-CSA-005, <i>Configuration of Existing Facilities and Infrastructure Different from Assumed</i> , was added to the spotlight chart as a realized risk. Risk WSD-W135-038, <i>CSS Equipment Design Changes Impact Mockup</i> , is no longer being realized and was removed from the spotlight chart.													
<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			<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 <b>September</b> . 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			<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 <b>September</b> . Select staff are prepared to respond to comments when they are received. 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	%	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			<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 <b>September</b> . 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>													
<p>WSD-CSA-005: Configuration of Existing Facilities and Infrastructure Different from Assumed</p>	<p>The CSA construction is impacted by a discovery that configuration of existing facilities and infrastructure differs from that represented in the design documents.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$500K, 32 days</p>	●	↑	<p><b>Risk Event:</b> The actual elevation of an existing buried sewer line as discovered during pot holing by the contractor was such that the alignment of the new fire protection raw water line in the immediate vicinity will be revised.</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 realign the raw water line.</td> <td>10/29/2020</td> <td>20</td> </tr> <tr> <td>Construct water line (no rework involved).</td> <td>12/24/2020</td> <td>0</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b> The design revision to address the new alignment was initiated and will be released by October 29, 2020. A contract change will be processed, and the contractor will complete construction by December 24, 2020.</p>	Risk Recovery Action(s)	FC Date	%	Revise the design to realign the raw water line.	10/29/2020	20	Construct water line (no rework involved).	12/24/2020	0
Risk Recovery Action(s)	FC Date	%											
Revise the design to realign the raw water line.	10/29/2020	20											
Construct water line (no rework involved).	12/24/2020	0											
<p>WSD-CSA-018: CSA Design Errors and Omissions</p>	<p>CSA construction is impacted by errors and omissions in the issued design documents. Impacts could be to safety, quality, schedule and/or cost.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$650K, 24 days</p>	●	↔	<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>Complete</td> <td>100</td> </tr> <tr> <td>Construct new RPBA facility.</td> <td>12/24/2020</td> <td>0</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b> The design revision to address the omission (i.e., to include an RPBA facility) was released on September 28, 2020, seven working days after the August forecast completion date. The 7 working day delay resulted from combined delay in issue of the design package by the Architect/Engineer and delay in obtaining approvals from MSA entities that are involved in the work (e.g., Hanford Fire Department). A contract change will now be processed with the CSA contractor to construct the new facility. This risk is forecast to remain realized through calendar year 2020.</p>	Risk Recovery Action(s)	FC Date	%	Revise the design to include an RPBA facility.	Complete	100	Construct new RPBA facility.	12/24/2020	0
Risk Recovery Action(s)	FC Date	%											
Revise the design to include an RPBA facility.	Complete	100											
Construct new RPBA facility.	12/24/2020	0											
<p>WSD-CSS-006: Fabrication of the Equipment from the Contractor</p>	<p>Fabrication of critical items for the long-term storage of the Cs and Sr capsules does not go exactly as planned, resulting in design changes and rework.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$5M, 144 days</p>	●	↔	<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>Automated Weld System (AWS) vendor to provide portions of design for review as available.</td> <td>12/16/2020</td> <td>48</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b> The forecast completion date for the AWS vendor to provide portions of the design for review slipped eight days in September. 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 the completion of full design. The preliminary gantry design review has been completed. Preliminary design review for the weld head and alternate motion platform will be conducted in October. Completion of the seismic analysis is taking longer than planned, extending design duration.</p>	Risk Recovery Action(s)	FC Date	%	Automated Weld System (AWS) vendor to provide portions of design for review as available.	12/16/2020	48			
Risk Recovery Action(s)	FC Date	%											
Automated Weld System (AWS) vendor to provide portions of design for review as available.	12/16/2020	48											

Risk Title	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
<b>RL-0013/WBS-013</b>													
WSD-CSS-015: CSS Design Changes	<p>During fabrication of the CSS equipment, necessary design changes are identified, resulting in 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> \$750K, 80 days</p>	●	↔	<p><b>Risk Event:</b> Design changes for the CSS equipment have been identified by Nuclear Assurance Corporation (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 a schedule delay. Additionally, CHPRC engineering staff assigned to other high priority projects during the CSS design period have identified changes from previous lessons learned. These changes reduce operational risk and improve occupational safety but resulted in additional costs and schedule delay. Mitigation is for CHPRC engineering to perform a cost/benefit analysis for presentation to the project management prior to requesting change from the contractor. Minor drawing changes have been communicated to the fabrication contractor for incorporation at the next drawing revision to avoid unnecessary diversion of critical resources from fabrication tasks</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	<p>The MASF mockup construction contractor fails to perform per the proposal or fails to meet CHPRC expectations, leading to schedule delays.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Medium (26% to 74%)</p> <p><b>Worst Case Impacts:</b> \$350K, 64 days</p>	●	↑	<p><b>Risk Event:</b> The MASF mockup construction contractor has not managed their subcontractors effectively and has submitted fabrication drawings that cannot be approved by CHPRC. Workmanship in the field is not adequate and has resulted 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> During September, the mockup construction contractor made substantial progress toward completion of the mockup structure. The forecast is to complete the mockup structure and subsequent acceptance testing in October 2020.</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											
<b>Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)</b>													
WSD-097: Major Equipment Failure – T Plant	<p>T Plant suffers a major equipment failure (e.g., crane, primary power supply, etc.), resulting in cost impacts and schedule delays.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Medium (26% to 74%)</p> <p><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 September. 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 September.													
<b>FY2020 Key Risks</b>													
WSD-086: W&FM Industrial Accident or Contamination	<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%)</p> <p><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 September. 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 the Solid Waste Operations Complex (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 <b>September</b>. 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. Surveillance and enhanced monitoring is required on the remaining containers.</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/ 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> </tbody> </table> <p><b>Mitigation Assessment:</b> No significant changes in <b>September</b>. 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. The master documented safety analysis container-stacking requirements are complete. Maintenance work at CWC will be scheduled based on facility work priorities.</p>	Mitigation Action(s)	FC Date	%	Conduct floor repairs as necessary.	Ongoing	N/A	Conducting doorframe replacements and electrical equipment repairs as necessary.	Ongoing	N/A			
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														
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 <b>September</b>. 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 <b>September</b>. 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%) <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 September. As of the end of September, excavation of loose foundation materials within the footprints of the CSP and the OP were completed without encountering contamination. However, significant excavation remains related to the installation of the new fire protection raw water line between WESF and CSB; therefore, this risk is retained as a key risk for September. This risk has been accepted because 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%) <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>10/22/2020</td> <td>85</td> </tr> <tr> <td>Procure critical spares.</td> <td>9/30/2021</td> <td>0</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> The completion of crane PMs was delayed 22 days from the August 30, 2020, forecast completion date due to resources being reassigned to replaced air filters at WESF, CSB, &amp; T Plant. Wildfire in the Pacific Northwest created environmental conditions that closed the Hanford Site and fouled facility air filters. Facility personnel will complete crane PMs in October 2020. 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.	10/22/2020	85	Procure critical spares.	9/30/2021	0			
Mitigation Action(s)	FC Date	%														
Perform preventative/corrective maintenance procedures on the crane to facilitate reliability.	10/22/2020	85														
Procure critical spares.	9/30/2021	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%) <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 September. 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 September.																

## 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	21.1	21.8	17.0	0.6	3.0%	4.8	22.0%

Numbers are rounded to the nearest \$0.1 million.

#### CM Schedule Performance (+\$0.6M/+3.0%)

The CM schedule variance is within threshold.

#### CM Cost Performance (+\$4.8M/+22.0%)

The CM positive cost variance resulted from a combination of the PSWO issued by RL to CHPRC on March 24, 2020, and a positive passback associated with over liquidation of the labor adder pool. 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 COVID-19 guidelines and the “Stay Home, Stay Healthy” order issued by the Washington State governor. Non-portable work activities are work that cannot be performed in a remote manner (e.g., telework from home). The September positive passback was a combination of three pools: the absence (ABS) pool, the continuity of service (COS) pool and the continuity of pension (COP) pool. All three pools over-liquidated in FY2020. The COS and COP pool over-liquidations occurred due to lower-than-expected pool costs (e.g., Hanford Employee Welfare Trust [COS and COP] and workers compensation [COS]). The ABS pool over-liquidation is primarily due to lower-than-expected non-personal time bank absences (e.g., R time, EA time, jury duty), based on prior year actuals. These distributions impacted every account that had labor cost. Additionally, a general and administrative (G&A) rate over-liquidation was distributed in September. The G&A over-liquidation was due to lower pool costs resulting from the transfer of indirect COVID-19 costs to direct accounts and the positive labor variance distributions. Also contributing to the positive cost variance was a weeklong facility closure due to poor air quality, during which performance continued for level of effort accounts but labor costs were limited.

## 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	1,677.1	1,654.8	1,565.2	(22.3)	-1.3%	89.6	5.4%	1,677.1	1,590.2	25.0	86.8

Numbers are rounded to the nearest \$0.1 million.

#### CTD Schedule Performance (-\$22.3M/-1.3%)

The CTD schedule variance is within threshold.

**CTD Cost Performance (+\$89.6M/+5.4%)**

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

- Organizational flattening and streamlining.
- Right-sizing capabilities for planned scope.
- Optimizing resources with reorganization and consolidation of engineering capabilities across W&FMP.
- Combined administrative/records functions across WESF and CSB.
- Removing waste from building(s) and reducing the need for inspections/surveillances.
- Reducing the size and number of radioactive areas/radioactive material and associated surveillances/routines and records.
- Tagging out unneeded equipment and reducing the frequency and number of PM activities.
- Increasing shared resources across all of SWOC.
- Reducing dedicated resources for the Corrective Action System 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 (+\$86.8M/+5.2%)**

The CTD VAC 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.

**Contract Performance Report Formats are provided in Appendix A.**

## FUNDS vs. SPEND FORECAST (\$M)

RL-0013 Solid Waste Stabilization and Disposition	FY2020		
	Total Funding	Actual Cost	Variance
Waste Stabilization and Disposition	197.9	172.1	25.8
Management of Cesium and Strontium Capsules (Line Item)	2.3	1.2	1.1
RL-0013 – Total	200.2	173.3	26.9

Numbers are rounded to the nearest \$0.1 million.

### Funds/Variance Analysis

The FY2020 variance of \$26.9 million reflects funding of \$200.2 million and actual costs of \$173.3 million. The FY2020 actual costs reflect a decrease of \$4.6 million from the August spending forecast primarily due to the unanticipated labor rate variance redistribution and G&A passback, which caused significant credit to costs. Additionally, work scope continued to push 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.

### 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, non-enforceable 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(A)		Complete
M-091-44T	Submit Change Request to Establish Schedule for Achieving Offsite Shipment of All TRUM Waste	9/30/2020	9/30/2020(A)		Complete
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(A)		Complete
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

Description	CHPRC Delivery Date	Expected RL Due Date
RL Review/Approve CSA Preliminary Documented Safety Analysis (first FY)	5/16/2019(A)	11/5/2020
RL Review/Approve Project W-135, WESF Modifications, CD-2 and CD-3 Documentation	7/27/2020(A)	12/4/2020
RL Approve IDF Final Hazard Categorization	8/3/2020(A)	10/1/2020

# 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

September 2020  
CHPRC-2020-09, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

**J. A. Lerch**  
Vice President for  
Environmental Program  
and Strategic Planning

**M. A. Wright**  
Vice President for  
Project Technical  
Services

## PROJECT SUMMARY

In September, pump and treat (P&T) operations continued progress on the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)* remedial process documentation for the River Corridor and Central Plateau. Groundwater treatment 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	35.1	344.2	1.8	18.9						
HX P&T	24.8	292.4	2.9	36.9						
KR-4 P&T	10.9	149.8	0.1	1.5						
KW P&T	12.6	152.2	0.4	10.4						
KX P&T	26.0	414.2	1.0	21.2						
200 West P&T	105.9	1,128.5	1.1	6.5	169.0	1,983.0	4.59x10 <sup>11</sup>	1.73 x10 <sup>12</sup>	16.3	77.0
<b>Combined</b>	<b>215.2</b>	<b>2,481.2</b>	<b>7.2</b>	<b>95.4</b>	<b>169.0</b>	<b>1,983.0</b>	<b>4.59x10<sup>11</sup></b>	<b>1.73 x10<sup>12</sup></b>	<b>16.3</b>	<b>77.0</b>
<b>FY2020 Gold Metric</b>	<b>--</b>	<b>2,200.0</b>	<b>--</b>	<b>80.0</b>	<b>--</b>	<b>1,800.0</b>	<b>--</b>	<b>N/A</b>	<b>--</b>	<b>90.00</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	4	4
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>4</b>	<b>7</b>
<b>Site Wide Boreholes</b>	<b>0</b>	<b>2</b>	<b>2<sup>+</sup></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).

<sup>+</sup>In fiscal year (FY) 2016, CH2M HILL Plateau Remediation Company (CHPRC) overlooked the performance of congener analysis at two 200-DV-1 OU waste sites (216-T-19 and 216-S-13) as required by the 200-DV-1 Sampling and Analysis Plan if polychlorinated biphenyls (PCBs) came back "non-detect." Two unplanned boreholes were drilled in FY2021 to obtain samples necessary to perform the required congener analysis.

## 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 Soil and Groundwater Remediation Project (S&GRP) will be tracked, the workforce will be briefed on spill prevention, and if needed, a plan for reducing spills will be created.	9/30/2020	57%
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	100%
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	100%

## 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	3	9/1/2020 - Employee reported being bit/stung while at well site. Employee received treatment at HPM Corporation and returned to work. (25561)
Near-Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### Environmental Integration

- Resolved issues to integrate the tank farms and to establish the Central Plateau Principles and Parameters as a standalone document referenced through the *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement). The Principles and Parameters establish the framework to guide consistent cleanup decision-making for the Central Plateau.
- Issued the Cumulative Impact Evaluation Technical Approach Document, which establishes the framework for developing an advanced modeling toolset that enables the evaluation of cumulative impacts to groundwater from potential sources, including existing groundwater contamination. The approach document reflects disposition of comments received from the U.S. Environmental Protection Agency (EPA) and the Washington State Department of Ecology (Ecology) as well as from an independent peer review team of modeling experts convened by the U.S. Department of Energy (DOE), Richland Operations Office (RL). With an objective to be modular, maintainable,

flexible and efficient, the advanced modeling tools will support evaluation of alternative remediation and closure decisions for source areas and groundwater across the Central Plateau.

- Submitted DOE/RL-2019-52, *Composite Analysis for Low-Level Waste Disposal in the Hanford Site Central Plateau (FY 2020)*, Decisional Draft. DOE/RL-2019-52 reflects the full FY2020 schedule recovery following a pause to complete in-scope unplanned work and impacts from a computing system hardware failure during the first half of the FY.
- Completed Revision 6 of the 100 Area Geoframework Model, the report has been cleared and published (CP-64995, *Model Package Report: Geoframework Model of the Hanford Site 100 Area, Revision 0*).

#### **100-HR-3 Operable Unit (OU)**

- Submitted DOE/RL-2017-13-ADD1, *Groundwater Monitoring Sampling and Analysis Plan for the 100-HR-3 Groundwater Operable Unit*, Draft A, to RL on September 30, 2020, for transmittal to EPA and Ecology for review.

#### **100-KR-4 OU**

- Submitted the Tri-Party Agreement change notice TPA-CN-0899 to DOE/RL-97-01, *Interim Action Waste Management Plan for the 100-HR-3 and 100-KR-4 Operable Units*, Revision 6 to the Administrative Record on September 24, 2020, for approval by RL, EPA and Ecology on September 24, 2020. This change notice allows fieldwork for both OUs to move forward in FY2021 under the interim action record of decision, until HR-3 final Remedial Design/Remedial Action Work Plan is complete.

#### **100-NR-2 OU**

- Submitted DOE/RL-2000-41, *Waste Management Plan for the 200-NR-2 Operable Unit*, Revision 2 Draft A, to RL on September 10, 2020, for transmittal to Ecology for review.

#### **300-FF-5 OU**

- Submitted SGW-63113, *300-FF-5 Operable Unit Enhanced Attenuation Uranium Sequestration Completion Report*, Revision 0, to RL on September 25, 2020, for transmittal to Ecology. SGW-63113 concludes the uranium sequestration effort that used polyphosphate solution to sequester mobile uranium and prevent it from entering the groundwater table in the treatment area.

### **Central Plateau**

#### **200-BP-5 and 200-PO-1 OUs**

- Submitted DOE/RL-2020-10, *Sampling and Analysis Plan for Drilling Interim Remedial Action Wells in the 200-BP-5 and 200-PO-1 Groundwater Operable Units*, Draft A, to RL on September 25, 2020, for transmittal to Ecology and EPA for review.

#### **200-CP-1 OU**

- Submitted DOE/RL-2020-27, *Remedial Investigation/Feasibility Study Work Plan for the 200-CP-1 Operable Units*, Draft A, to RL on September 25, 2020, for transmittal to Ecology for review.

#### **Central Plateau RCRA Closure Plans**

- Transmitted the 216-A-29, 216-B-3, 216-B-63, and 216-S-10 Closure Plans, after completing CHPRC certification, to RL on September 30, 2020, for submittal to Ecology.

#### **200-ZP-1 OU**

- Submitted DOE/RL-2019-76, *200-ZP-1 OU Optimization Study Sampling and Analysis Plan*, Draft A, to RL on September 10, 2020, for transmittal to EPA for review.

**200-DV-1 OU**

- Completed drilling, sampling and decommissioning the 200-DV-1 boreholes D0208 (216-T-19) and D0209 (216-S-13) for PCB/PCB congener resampling September 22, 2020.
- Submitted DOE/RL-2019-42, *Sampling and Analysis Plan for Perched Water Extraction and Monitoring Wells in the 200-DV-1 OU*, Revision 0, to RL on September 25, 2020, for transmittal to Ecology and EPA.

**Groundwater Science Program**

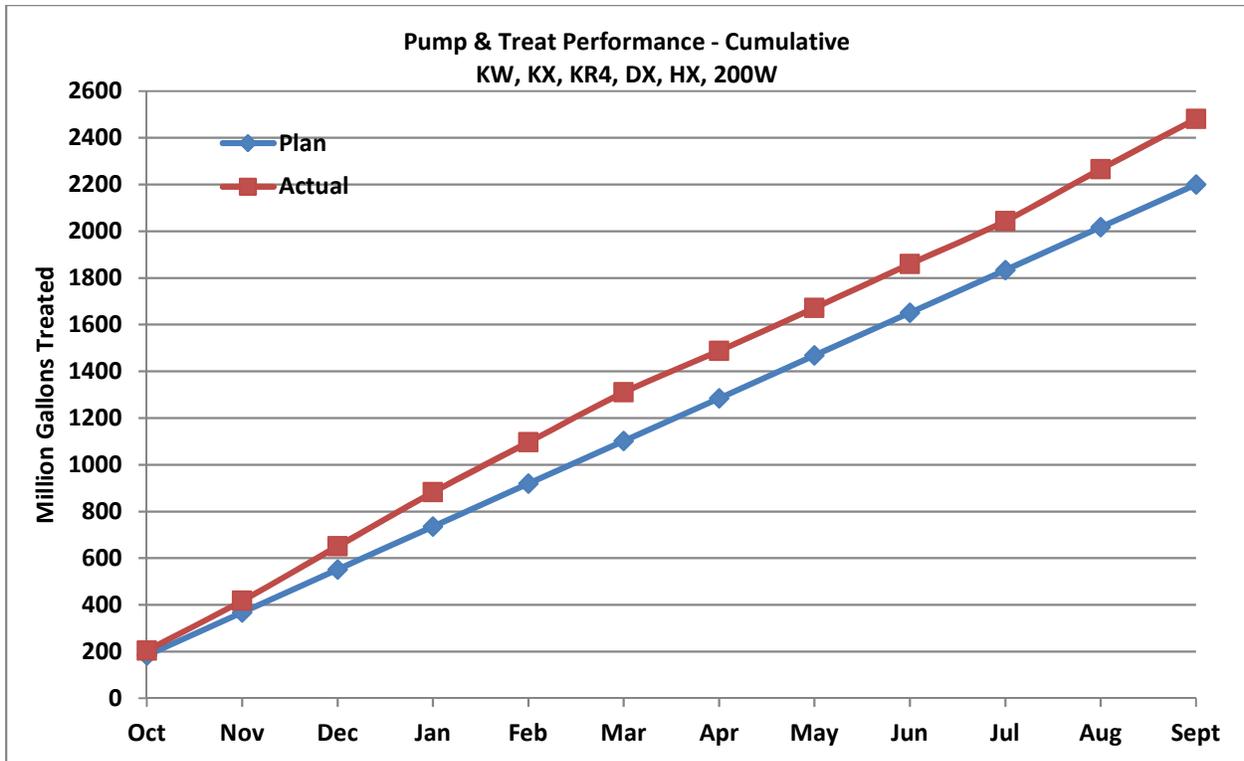
- Submitted DOE/RL-2019-67, *Calendar Year 2019 Summary Report for the 100-HR-3 and 100-KR-4 Pump and Treat Operations, and 100-NR-2 Groundwater Remediation*, Revision 0, to RL on September 8, 2020, for transmittal to Ecology and EPA.

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

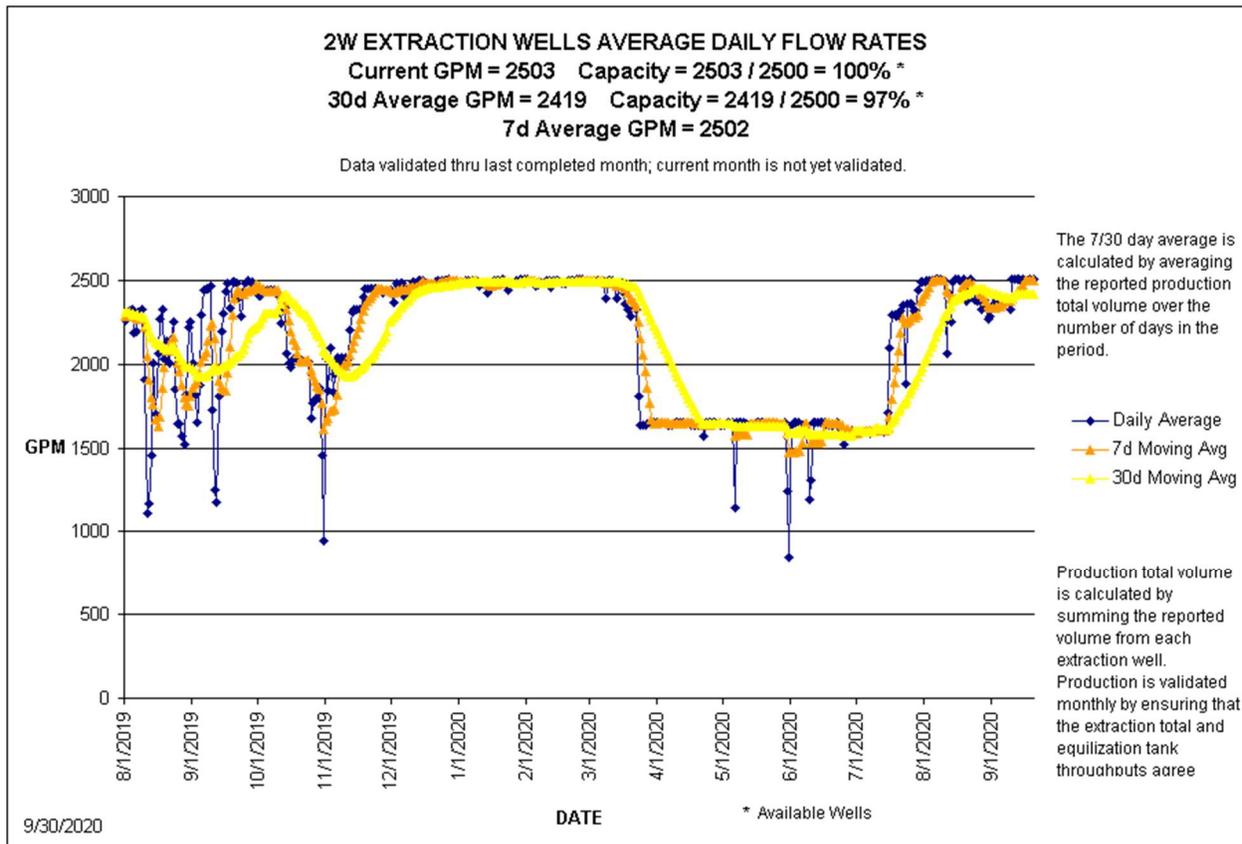
- Operated the 200 West Area P&T at an average of 2,419 gpm.

**100 Area P&Ts**

- Operated the DX P&T at 816 gpm, above the facility capacity of 775 gpm.
- Operated the KR-4 P&T at 252 gpm, below the facility capacity of 330 gpm.
- Operated the KW P&T at 291 gpm, below the facility capacity of 330 gpm.
- Operated the KX P&T at 602 gpm, below the facility capacity of 900 gpm.
- Operated the HX P&T at 576 gpm, below the facility capacity of 900 gpm.



FY2020 P&T Operations



200 West P&T Operations

## MAJOR ISSUES

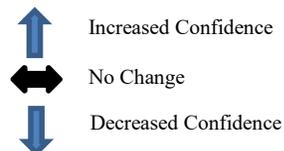
**Issue**

None currently identified.

### RISK MANAGEMENT STATUS

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

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



Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
<b>RL-0030/WBS-030</b>										
<b>Explanation of major changes to the project monthly spotlight chart:</b>										
1) Risk <i>SGW-171: Increase in Routine Sampling &amp; Analysis Requirements</i> , has been removed from the spotlight chart. 2) Risks <i>SGW-216B-02: 216-B-63 Closure Plan Atypical Comments</i> , <i>SGW-216S-01: 216-S-10 Closure Plan Atypical Comments</i> , <i>SGW-216A-01: 216-A-29 Closure Plan Atypical Comment</i> , have been updated to reflect the revisions to their respective Recovery Assessment and a change to the increased positive trending. 3) Risk <i>SGW-KR4-05: FS (Feasibility Study) – Greater Than Expected Comments from RL or Regulators</i> , has been updated to reflect revisions to both the Risk Event and Recovery Assessment.										
<b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>										
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: 2em;">●</span>	<span style="color: blue; font-size: 2em;">↑</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-top: 10px;"> <thead> <tr style="background-color: #cccccc;"> <th style="text-align: center;">Recovery Action(s)</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</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> CHPRC has formally submitted the 216-A-29, 216-B-3, 216-B-63 and 216-S-10 Closure Plans as a single bulk closure planning package to RL senior management. Following certification by RL senior management, clearance of the closure plans can be completed and transmitted to Ecology for final lockdown and official removal of this risk.</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 formally submitted the 216-A-29, 216-B-3, 216-B-63 and 216-S-10 Closure Plans as a single bulk closure planning package to RL senior management. Following certification by RL senior management, clearance of the closure plans can be completed and transmitted to Ecology for final lockdown and official removal of this risk.</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> CHPRC has formally submitted the 216-A-29, 216-B-3, 216-B-63 and 216-S-10 Closure Plans as a single bulk closure planning package to RL senior management. Following certification by RL senior management, clearance of the closure plans can be completed and transmitted to Ecology for final lockdown and official removal of this risk.</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> After completion of EPA review, the project is required to disposition more comments than planned and resolve global policy issues associated with the application of the Technical Impracticability (TI) waiver, resulting in in-scope, unplanned work.</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> EPA completed review of the FS and provided comments in September. Preliminary assessment of the comments indicate that 279 comments were received. The baseline assumption planned for only 200 comments to be dispositioned. Additionally, there are significant policy issues associated with the applicability of the TI Waiver that could take up to six months to address.</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 <b>September</b> .													
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)													
No High Risks identified in <b>September</b> .													

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	<p>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.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Low (10% to 25%) <b>Worst Case Impacts:</b> \$350K, 25 days</p>	●	↔	<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 cumulative impact evaluation work activities and requires the purchase and validation of new components.</p> <table border="1"> <thead> <tr> <th>Mitigation Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Implement the use of a virtual server for modelling activities.</td> <td>TBD</td> <td>0</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> No significant changes in September. CHPRC was able to work with Mission Support Alliance, LLC (MSA) to complete the install of an additional computing node, which helps, but is still not the end vision, as a virtual front-end is still the preferred method for risk mitigation. Currently, impacts from the novel coronavirus (COVID-19) and transition support of the MSA site service contract are delaying the path forward for a virtual server. CHPRC intends to gain traction with MSA in FY2021.</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								
<b>Unassigned Risks</b> (Pending ownership of identified risks/opportunities)										
No unassigned risks identified in <b>September</b> .										

## 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	10.8	12.5	7.2	1.7	16.1%	5.3	42.4%

Numbers are rounded to the nearest \$0.1 million.

### CM Schedule Performance (+\$1.7M/+16.1%)

The CM positive schedule variance reflects the late receipt of the 200 West Area stripper tower, which was planned to be received in May but was delayed due to the impacts of COVID-19 on the stripper tower manufacturer. Additional schedule recovery was realized with the completion of DOE/RL-2019-52, which had been delayed due to in scope unplanned work and computing issues earlier in the fiscal year. Other areas, such as routine sampling and analysis, drilling projects and fieldwork projects, including K West Soil flushing and 100-HR-3 well realignments, began to experience schedule recovery in September after lengthy delays due to the partial stop work order (PSWO).

### CM Cost Performance (+\$5.3M/+42.4%)

The CM positive cost variance is primarily due to an over-liquidation of the labor adder and General and Administration (G&A) pools in FY2020, which resulted in a significant credit to cost in September. Additionally, the 200 West Area stripper tower was received in September and costed significantly less than its planned value. The Composite Analysis decisional draft (DOE/RL-2019-52) was completed efficiently in September after the sensitivity cases proved less challenging than expected.

Routine activities for both 200 West P&T preventative maintenance and routine sampling and analysis generated efficiencies by completing behind-schedule tasks concurrently with current month tasks, while “catching up” from downtime due to the PSWO. Also contributing to the positive cost variance was a

weeklong facility closure, due to poor air quality, which resulted in positive cost performance on level of effort activities.

## 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	1,755.1	1,733.2	1,677.4	(21.9)	-1.2%	55.8	3.2%	1,755.1	1,698.3	20.9	56.8

Numbers are rounded to the nearest \$0.1 million.

### CTD Schedule Performance (-\$21.9M/-1.2%)

The CTD negative schedule variance is within reporting thresholds.

### CTD Cost Performance (+\$55.8M/+3.2%)

The CTD positive cost variance is within reporting thresholds.

### Variance at Completion (+\$56.8M/+3.2%)

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
	Total Funding	Actual Cost	
Spending Forecast	112.2	94.0	18.2

Numbers are rounded to the nearest \$0.1 million.

### Funds/Variance Analysis

The FY2020 variance of \$18.2 million reflects funding of \$112.2 million and actual costs of \$94.0 million. The FY2020 actual costs reflect a decrease of \$4.3 million from the August spending forecast primarily due to the unanticipated labor rate variance redistribution and G&A passback, which caused significant credit to costs. Additionally, facility closure due to poor air quality and delay in the receipt of some material procurements for the stripper tower installation contributed to the variance.

### 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, non-enforceable 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 abeyance
M-015-98	Complete Remedial Investigation of U Plant Related Waste Sites located in 200-WA-1	6/30/2019		TBD	In abeyance
M-085-70	Submit to Ecology a Remedial Investigation/Feasibility Study Work Plan for 200-CP-1	9/30/2019		2/20/2023	In abeyance
M-015-99	Complete Remedial Investigation of Plutonium Finishing Plant (PFP) Related Waste Sites Located in 200-WA-1	12/31/2019		TBD	In abeyance
M-085-80	Submit Remedial Investigation/Feasibility Study Work Plan for 200-CP-1 to Ecology	9/30/2020	9/22/2020		Completed
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	In abeyance
M-024-71	Complete the Construction of All Wells Listed for CY20 and Before	12/31/2020	9/28/2020		Complete
M-024-58N	Initiate Discussions of Well Commitments	6/1/2021		6/1/2021	On schedule
M-024-72-T01	Conclude Discussions of Well Commitments Initiated Under M-024-58	8/1/2021		8/1/2021	On schedule
M-085-90	Submit Remedial Investigation/Feasibility Study Work Plan for 200-CR-1 to EPA	9/30/2021		5/20/2023	In abeyance

## GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

**DOE ACTIONS/DECISIONS\***

Description	CHPRC Delivery Date	Expected RL Due Date
RL Approve 100-HR-3 Remedial Design/Remedial Action Work Plan (RD/RAWP) Revision 0	6/18/2020 (A)	10/8/2020
RL Certify and Submit 216-S-10 Pond and Ditch Addendum to Ecology	9/29/2020 (A)	10/19/2020
RL Review of KW Rebound Study Parent Sampling and Analysis Plan Draft	10/19/2020	11/19/2020
RL Review of 100-KE Soil Flushing Explanation of Significant Difference	11/2/2020	12/2/2020
RL Review of 100-D-H Waste Site Closeout Package C	11/9/2020	11/19/2020
RL Transmit Final 100-HR-3 RD/RAWP Revision 0 to Ecology	11/16/2020	12/1/2020
RL Review 200-BP-5/200-PO-1 Decisional Draft Interim Action RD/RAWP	11/18/2020	12/17/2020
RL Transmit 100-KR-4 FS Draft Revision 0 for Regulator for Review	12/1/2020	12/15/2020
RL Transmit ZP-1 Operation and Maintenance Plan, Draft A, to EPA	12/2/2020	12/16/2020
RL Transmit 100-KE Soil Flushing Explanation of Significant Difference to EPA	12/3/2020	12/17/2020
RL Receive Ecology Comments on Draft A 200-CP-1 RI/FS Work Plan	NA	12/29/2020

\*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

September 2020  
CHPRC-2020-09, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

**J. L. Casper**  
Vice President for  
Plutonium Finishing Plant  
Closure/West Area  
Remediation Projects

## PROJECT SUMMARY

In September, the Central Plateau Risk Management (CPRM) Project and the West Area Remediation Project (WARP) continued essential mission-critical Phase I 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). All CPRM and WARP personnel returned to the Hanford Site in September. The CPRM Aging Structures team completed the work package and mockup to perform investigations for the 216-Z-2 Crib and 241-Z-361 Tank, initiated mobilization to the field and continued to fabricate and assemble the ventilation system. At the Reduction-Oxidation (REDOX) facility, crews completed the installation of the new shower trailer, set up of the step-off pad (SOP) trailer, configuration of the personal contamination monitoring equipment, ultrasonic testing of the 276S hexane lines to confirm the lack of liquids within the lines, and mechanically isolated the chemical bridge from 211S to 202S. Additionally, crews completed pouring the slab for the REDOX temporary ventilation system and construction of the REDOX East Container Transfer Area (CTA). Field crews at the 224B Facility completed roof anchor installations, erection of the asbestos containment tent on the second and third floors, and made significant progress on removal of hazardous material from the clean side of the facility. Finally, the Plutonium Uranium Reduction Extraction Facility (PUREX) North team completed the 211A entry and electrical investigations and removed a communication line north of 202A. The WARP team completed the hazardous waste removal, demolition and debris loadout of two former mobile office trailers MO2110 and MO2118 in the south trailer village. Crews also began the electrical and mechanical isolations for 234-5Z-BA and 234-5Z-BE boiler annexes, completed characterization and sampling for the south trailer village, and continued hazardous waste removal.

### 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	100%

## 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	2	9	<p>9/9/20 – Employee hit their head on a cabinet door, causing a small cut on the top of the head. Employee received wound skin care at HPM Corporation and returned to work with no restrictions. (25562)</p> <p>9/24/20 – Employee felt a pop in their left shoulder after tossing a strap over a trailer bed. Employee was taken to HPMC for care and returned to work with no restrictions. (25577)</p>
Near Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### Central Plateau Risk Management

#### Surveillance and Maintenance (S&M)

- Completed electrical investigation of PUREX 293A Tank.
- Completed annual National Emission Standards for Hazardous Air Pollutants (NESHAP) inspection for PUREX.
- Completed annual NESHAP inspection for the B Plant nuclear facility.
- Completed quarterly inspections of the temporary storage and disposal sites at the Nonradioactive Dangerous Waste Landfill.

#### REDOX Canyon Risk Mitigation

- Completed concrete pour and backfill of the slab to support REDOX’s balance system for temporary ventilation.
- Completed ultrasonic testing and isolation of the 276S hexone lines to support medium hazard mechanical isolation activities.
- Completed procurement of the 291S power drop and set a new power distribution panel on the site.
- Completed construction of the REDOX waste CTA.
- Completed installation of a snow fence along the wind tunnel entrance to 202S.
- Completed calibrations of the personal contamination monitor used for doffing from 202S.

### **Aging Structures Stabilization**

- Completed implementation of the documented safety analysis updates for the stabilization of the 241-Z-361 Tank.
- Completed the work package for the investigation and installation of the conveyance system for the 216-Z-2 and 216-Z-9 Cribs and 241-361 Tank.

### **224B Facility Demo Prep**

- Removed electrical interferences in the mechanical room to allow for scaffold erection.
- Completed Class 2 asbestos abatement on the third floor.
- Electricians completed the installation of additional temporary lighting and power on the second floor.
- Completed the roof anchor installations.
- Completed the mechanical isolation inspections for the clean side of 224B.

### **PUREX North Risk Mitigation**

- Installed a singlewide trailer on the 275EA slab to support demolition fieldwork at PUREX North.
- Electrically cleared Aqueous Makeup Unit and West Switchgear facilities in support of PUREX North electrical isolation index development.

### **West Area Remediation Project**

- Completed hazardous waste removal and demolition and debris loadout of two former mobile office trailers MO2110 and MO2118 in the south trailer village.
- Crews began the electrical and mechanical isolations for 234-5Z-BA and 234-5Z-BE boiler annexes, completed characterization and sampling for the south trailer village, and continued hazardous waste removal.

## **MAJOR ISSUES**

### **Issue**

Management directed a work stand down at the REDOX canyon on October 2, 2019, to address a variety of issues, including 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 about recommendations to improve the infrastructure at REDOX to support future work scope and minimize the risk of potential issues the project has previously experienced.

### **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) 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, decontamination trailer and portable emergency chemical shower. The work package for temporary power installation is complete, and personal contamination monitors have been calibrated. Completion of Phase I corrective actions will be presented to REDOX personnel in October with Phase II efforts to follow.

**RISK MANAGEMENT STATUS**

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

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

- Increased Confidence
- No Change
- Decreased Confidence

Risk Title	Unmitigated Risk Impacts	Assessment		Comments												
		Month	Trend													
<b>RL-0040/WBS-040</b>																
<b>Explanation of major changes to the project monthly spotlight chart:</b> Risk ZSS-003, <i>Latent Condition Impacts</i> , was added to the spotlight chart as realized risks. Risk 224B-007, <i>Cold &amp; Dark Latent Condition</i> , was removed from the spotlight chart, as it is no longer being realized.																
<b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>																
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>		<p><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.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Risk Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Mitigate OHC delays.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b> Required resources needed to support the 224B Facility electrical deactivation returned to work in August. The electrical isolation work package is complete and has been reviewed by MSA. <i>The power removal completed in September. This risk is no longer being realized and will be removed from the spotlight chart prior to October reporting.</i></p>	Risk Recovery Action(s)	FC Date	%	Mitigate OHC delays.	Ongoing	N/A						
Risk Recovery Action(s)	FC Date	%														
Mitigate OHC delays.	Ongoing	N/A														
REDOX-09: Concerned Citizen	Delays caused by public concern (i.e., stakeholders, other Hanford Site workers and concerned citizens) impact the project schedule and technical approach, resulting in recovery actions and causing unplanned, in-scope work.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$0, 16 days	<span style="color: red;">●</span>		<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" style="width: 100%;"> <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, decontamination trailer, and portable emergency chemical shower.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Create and implement a phased approach to address identified concerns.</td> <td>January 2020</td> <td>80</td> </tr> <tr> <td>Upgrade temporary power/lighting and localized ventilation.</td> <td>November 2020</td> <td>50</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b> This risk was realized in October 2019. A detailed corrective action list was created with REDOX personnel input. A phased approach schedule was developed and implemented to address infrastructure upgrades necessary to support future work demands. Action items have been assigned to the appropriate responsible manager, and REDOX management is interfacing with personnel for weekly updates on corrective actions. The SOP decontamination trailer setup is complete and Phase I corrective actions will be presented to REDOX personnel in October with Phase II corrective actions to follow.</p>	Risk Recovery Action(s)	FC Date	%	Procure and install the SOP trailer, decontamination trailer, and portable emergency chemical shower.	Complete	100	Create and implement a phased approach to address identified concerns.	January 2020	80	Upgrade temporary power/lighting and localized ventilation.	November 2020	50
Risk Recovery Action(s)	FC Date	%														
Procure and install the SOP trailer, decontamination trailer, and portable emergency chemical shower.	Complete	100														
Create and implement a phased approach to address identified concerns.	January 2020	80														
Upgrade temporary power/lighting and localized ventilation.	November 2020	50														

Risk Title	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
<b>RL-0040/WBS-040</b>													
REDOX-16: Facility Integrity	<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>January 2021</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> 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 reduce water intrusion. Electrical isolation indexing activities are expected to increase in November 2020; work package revisions are in progress, resulting in delayed progress.</p>	Risk Recovery Action(s)	FC Date	%	Perform cold and dark activities to shut off building power.	January 2021	45	Repair minor roof defects.	Ongoing	N/A
Risk Recovery Action(s)	FC Date	%											
Perform cold and dark activities to shut off building power.	January 2021	45											
Repair minor roof defects.	Ongoing	N/A											
REDOX-VS-004: Unexpected Design Changes	<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 the 291S power distribution.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Design, fabrication and planning for procurement of the 202S ventilation system.</td> <td>December 2020</td> <td>75</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b> Design and procurement of the 291S power distribution completed in September. The 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 the 291S power distribution.	Complete	100	Design, fabrication and planning for procurement of the 202S ventilation system.	December 2020	75
Risk Recovery Action(s)	FC Date	%											
Design and procurement of the 291S power distribution.	Complete	100											
Design, fabrication and planning for procurement of the 202S ventilation system.	December 2020	75											
ZSS-003: Latent Condition Impacts	<p>Unknowns, as found or emergent conditions impact the Z Structure stabilization efforts, resulting in in-scope unplanned work and subsequently resulting in cost and schedule impacts.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$100K, 16 days</p>	●	↓	<p><b>Risk Event:</b> Subcontractor change orders for unknown and as-found conditions resulted in the project experiencing cost and schedule impacts.</p> <table border="1"> <thead> <tr> <th>Risk Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Review and process change orders as appropriate to mitigate cost and schedule impacts</td> <td>December 2020</td> <td>5</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b> The initial mockup demonstration required an additional rabbit and demonstration of the control density fill (CDF) grout. In addition, to support work package development for the site wash out area and to create a baseline to maintain environmental compliance, the project performed testing of the back flushed water from both the CDF and grout products demonstration for pH with a calibrated field test meter during discharge. Due to the access and riser load limitations confirmed by engineering during the investigation and installation work package development, the subcontractor procured a spider boom as a safe method of connection between the hard-piped conveyance system and CHPRC engineered adapters. These changes resulted in multiple change orders that are currently under review.</p>	Risk Recovery Action(s)	FC Date	%	Review and process change orders as appropriate to mitigate cost and schedule impacts	December 2020	5			
Risk Recovery Action(s)	FC Date	%											
Review and process change orders as appropriate to mitigate cost and schedule impacts	December 2020	5											

Risk Title	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
<b>RL-0040/WBS-040</b>													
<b>Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)</b>													
REDOX-05: Collapse of Sand Filter	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.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Very low (<10%) <b>Worst Case Impacts:</b> \$260K, 48 days	●	↔	<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>November 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> 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 <b>December 2020 due to delayed shipping and testing requirements for the high-efficiency particulate air filters</b>. Based on this information, the current plan would move any excavation work near the sand filters to <b>November 2020</b>.</p>	Mitigation Action(s)	FC Date	%	Establish sand filter access boundary.	November 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.	November 2020	50											
Implement a communication plan between OHCs and other CHPRC projects.	Ongoing	N/A											
<b>High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)</b>													
No high threat value risks identified in <b>September</b> .													
<b>FY2020 Key Risks</b>													
BOS-003: Facility Integrity	Problems with aging buildings, systems or components (e.g., roofing and structures) 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) 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>October 2020</td> <td>90</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> <b>The forecast completion of the lifecycle evaluations slipped from September to October due to extensive comment resolution on the structural evaluation report.</b> A subcontract to perform structural analysis of the 231-Z Facility was awarded in late April 2020. The contract work began in June 2020. The evaluation has been completed, and the report is currently being finalized. 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.	October 2020	90			
Mitigation Action(s)	FC Date	%											
Perform lifecycle evaluations of critical structures, systems and components.	October 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>November 2020</td> <td>15</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> CHPRC continues to meet with representatives of RL, the U.S. Environmental Protection Agency (EPA) and Washington 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. <b>Delays in completion of negotiated changes to the AMP with regulators include duration to review and address comments and resubmission for approval.</b></p>	Mitigation Action(s)	FC Date	%	Negotiate changes to the AMP with regulators.	November 2020	15			
Mitigation Action(s)	FC Date	%											
Negotiate changes to the AMP with regulators.	November 2020	15											
<b>Unassigned Risks (Pending ownership of identified risks/opportunities)</b>													
No unassigned risks identified in <b>September</b> .													

## 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	12.6	7.9	10.8	(4.7)	-37.5%	(3.0)	-38.2%

Numbers are rounded to the nearest \$0.1 million.

### CM Schedule Performance: (-\$4.7M/-37.5%)

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 that are 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 Washington State governor. Non-portable work activities are work that cannot be performed in a remote manner (e.g., telework from home).

On August 31, the site operational posture transitioned to Phase 2. During Phase 2, work scope built upon scope from Phase 1 to include fieldwork that may require larger work teams and extensive use of personal protective equipment (PPE). The implementation of Phase 2 operations allowed the initiation of work activities at REDOX, 224B and PUREX North.

WARP scope planned in this period pushed out due to the phased resumption from the COVID-19 PSWO, as well as COVID PPE limitations and work package planning delays, contributed to the negative schedule performance. Work that was delayed included 231-Z Facility risk mitigation, south trailer village electrical isolations and 224-T demolition preparation activities.

### CM Cost Performance: (-\$3.0M/-38.2%)

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 that are 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 Washington State governor. 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	642.6	615.4	617.8	(27.2)	-4.2%	(2.4)	-0.4%	642.6	644.7	26.9	(2.1)

Numbers are rounded to the nearest \$0.1 million.

**CTD Schedule Performance: (-\$27.2M/-4.2%)**

The CTD schedule variance is within reporting thresholds.

**CTD Cost Performance: (-\$2.4M/-0.4%)**

The CTD cost variance is within reporting thresholds.

**Variance at Completion (-\$2.1M/-0.3%)**

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
	Total Funding	Actual Cost	
Spending Forecast	91.1	80.4	10.7

Numbers are rounded to the nearest \$0.1 million.

**Funds/Variance Analysis**

The FY2020 variance of \$10.7 million reflects funding of \$91.1 million and actual costs of \$80.4 million. The FY2020 actual costs reflect a decrease of \$3.8 million from the August spending forecast primarily due to the unanticipated labor rate variance redistribution and G&A passback, which caused significant credit to costs. Additionally, work scope continued to push into FY2021 due to the PSWO associated with COVID-19, contributing to the variance.

**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, non-enforceable 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-085-100	Submit Removal Action Work Plan for 224T to EPA	9/30/2020	8/13/2020(A)		Complete
M-016-250E	Submit to Ecology a 3-Year Rolling Prioritized Schedule to Implement Waste Site Removal Actions	9/30/2020	9/30/2020(A)		Complete

### GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

## DOE ACTIONS/DECISIONS

Description	CHPRC Delivery Date	Expected RL Due Date
RL Transmit DOE/RL-2019-37, 224T Sampling Analysis Plan (SAP) Draft A to Regulators for Review	11/19/2019(A)	8/13/2020(A)
RL Transmit DOE/RL-2019-36, 224T Removal Action Work Plan (RAWP), Draft A to Regulators for Review	2/14/2020(A)	8/13/2020(A)
RL Obtain Regulator Review DOE/RL-2016-53, PUREX Action Memorandum (AM)	5/6/2020(A)	10/1/2020
RL Review DOE/RL-2020-04, PUREX RAWP	5/20/2020(A)	10/19/2020
RL Obtain Regulator Review of DOE/RL-2017-06, REDOX RAWP, Revision 1 Draft	7/23/2020(A)	10/29/2020
RL Obtain Regulator Review of DOE/RL-2018-46, REDOX AMP, Revision 1, Draft	7/23/2020(A)	10/29/2020
RL Obtain Regulator Review of DOE/RL-2017-05, REDOX SAP, Revision 1 Draft	7/23/2020(A)	10/29/2020
RL Review PUREX SAP Decisional Draft	8/4/2020(A)	9/30/2020(A)
RL Obtain Regulator Review DOE/RL-2019-37, 224T SAP Draft A	8/13/2020(A)	10/1/2020
RL Obtain Regulator Review DOE/RL-2019-36, 224T RAWP, Draft A	8/13/2020(A)	10/1/2020
RL Review DOE/RL-2016-51, B Plant AM Decisional Draft	8/26/2020(A)	11/12/2020
RL Transmit DOE/RL-2020-39, Tier 2 Engineering Evaluation/Cost Analysis, Draft A to Regulators for Review	10/29/2020	11/30/2020

PUREX AM – Slip due to EPA second review delay.

PUREX RAWP – Received additional RL comments.

PUREX SAP – Slip due to RL review delay.

B Plant AM – Two-month delay is due to the public comment period being extended by 60 days.

REDOX RAWP, AMP and SAP – Delayed due to additional regulator input received.

# 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

September 2020  
CHPRC-2020-09, 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 and a partial, phased resumption of work continued in compliance with the RL-directed PSWO. The fabricated Vertical Pipe Casing (VPC) equipment, to be utilized for debris removal, was delivered. The VPC equipment will be stored until garnet filter media retrieval is complete. In the 400 Area, a new well pump for potable water was installed and tested. The pump is expected to be in service in October. The mockup was received in 100K in preparation for the 105KW Sand Filter Media sampling. 100-K Soil Remediation excavated and stockpiled 3,578 cubic meters of overburden material in September, to complete overburden removal from the 100-K-60 waste site.

### River Risk Management Project (RRMP)

The project continued essential mission-critical operations in compliance with the U.S. Department of Energy (DOE), Richland Operations Office (RL)-directed partial stop work order (PSWO). Development of the planning materials for Room 18 CA/HCA/airborne radiation areas (ARAs) was initiated. 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-OBJ1-P1	Evaluation of upcoming work activities at the 100K Area, which involves water discharge to the ground at the 100K Area.	Evaluate the upcoming work by the Hanford Fire Department to ensure decontamination and decommissioning (D&D) and soil remediation activities at the 100K Area follow requirements set by DOE/RL-97-67, <i>Pollution Prevention and Best Management Practices Plan for State Waste Discharge Permits ST 4508, ST 4509, and ST 4510</i> , Revision 3, and 100K-STD-OP-52370, <i>Discharges to Ground</i> .	9/30/2020	100%
20-EMS-KBO-OBJ2-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 CH2M HILL Plateau Remediation Company (CHPRC) procedures.	9/30/2020	100%

## TARGET ZERO PERFORMANCE

(Reported on a calendar month basis.)

	Current Month	Rolling 12 Months	Comment
Days Away, Restricted or Transferred	0	2	N/A
Total Recordable Injuries	0	1	N/A
First Aid Cases	0	9	N/A
Near Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### 100K Basin Operations

- 100K Closure Project
  - o 100K West Basin Deactivation
    - The VPC equipment for removal of the basin high dose debris was delivered and placed into storage inside the 4732C warehouse.
    - The mockup was received at 100K in preparation for the 105K West basin water treatment system sand filter media sampling.
- Soil Remediation Project
  - o Overburden removal was completed at the 100-K-60 waste site, removing over 3,578 m<sup>3</sup> of overburden material in September for stockpiling.
- 400 Area
  - o The P-16 well pump for potable water was installed and tested.

### RRMP, 324 Building Disposition Project

- Equipment procurements continued for the following:
  - o Cell dams for the 324 Building (in transit).
  - o Remote Excavator Arm (REA) demolition tool (completed prototype testing).
  - o Water delivery system for the airlock (preparing for Factory Acceptance Test (FAT)).
  - o Concrete/steel shield containers (delivered).
  - o Modified airlock rail (fabrication awaiting general CA/HCA resumption).
  - o Four-inch steel shield containers (awarding contract).
  - o Overpacks for shield containers (delivered and at acquisition verification service [AVS] for inspection and acceptance).
  - o Modified shielded lids and frames (delivered).
  - o Auto-leveling beam for containers (preparing for delivery).
  - o B Cell 10-ton crane (in fabrication).
  - o Upper REA replacement (in fabrication).
  - o Bin offset recovery tool (completed prototype testing).

- The following miscellaneous activities continued:
  - Essential operations.
  - Social distancing modifications.
  - Resumption of work planning.
  - Development of contamination event resumption training.
- Engineering:
  - Ongoing support to engineered equipment procurements.

### **Project Technical Services**

- Readiness and Preparedness:
  - Performed a tabletop drill for Building Emergency Director (BED) proficiency at the 324 Facility, resulting in granting re-proficiency to the BED.

## **MAJOR ISSUES**

### **Issue**

Task Cask Assembly (TCA)-1 is staged outside of the 105K West Facility and is awaiting disposition, and TCA-2 is staged inside the fuel transfer (FTS) annex attached to the north side of 105K West Basin. TCA-1 and TCA-2 were previously used to support transfer operations between 105K East and 105K West and are internally contaminated. Based on historical data, the casks contain residual amounts of basin water and sludge material. Both TCAs require 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. This approach will then be used to process TCA-2 after it is removed from the FTS annex.

### **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 the NDA is 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 the RL-directed PSWO, the support trailer and area around TCA-1 have been set up to facilitate the NDA work. Initial measurements have been taken for TCA-1, and the results are being compiled and reviewed. Following review of the results, NDA personnel will review the feasibility of performing additional NDA on TCA-2. Results of the NDA will be used to support fiscal year (FY) 2022 planning and engineering activities for dispositioning the contents of both TCAs.

### **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**

The evaluation of 324 Building practices as documented in the Root Cause Analysis and associated Corrective Action Plan identified 65 corrective actions. These corrective actions are broken into the following categories: Prestart Phase 1 (general CA/HCA activities), prestart Phase 2 (Room 18 activities), prestart Phase 3 (airlock activates), and post-start corrective actions.

**Status**

Twenty of these corrective actions are pre-starts to general CA/HCA activities (Phase1). Of these 20 Phase 1 prestart corrective actions, eight have been completed with the general HCA/ARA activities anticipated to start on November 24, 2020.

**RISK MANAGEMENT STATUS**

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

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

-  Increased Confidence
-  No Change
-  Decreased Confidence

Risk Title	Unmitigated Risk Impacts	Assessment		Comments																								
		Month	Trend																									
<b>RL-0041/WBS-041</b>																												
<b>Explanation of major changes to the project monthly stoplight chart:</b> No significant changes have been made to the stoplight chart in September:																												
<b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>																												
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			<p><b>Risk Event:</b> In August 2019, the REC A/D Crane failed during operations.</p> <table border="1"> <thead> <tr> <th>Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>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 AVS – B Cell 10-ton crane.</td> <td>3/2/21</td> <td>0</td> </tr> <tr> <td>Perform remote survey and Rad characterization of A/D Crane.</td> <td>3/23/21</td> <td>0</td> </tr> <tr> <td>Perform follow-up A/D Crane investigation.</td> <td>7/15/21</td> <td>0</td> </tr> <tr> <td>Procure/fabricate A/D Crane parts.</td> <td>11/2/21</td> <td>0</td> </tr> <tr> <td>Perform A/D Crane repair.</td> <td>12/16/21</td> <td>0</td> </tr> </tbody> </table> <p><b>Recovery Assessment:</b> Additional Radiological characterization/investigation and surveys and decontamination efforts will be performed on the A/D crane to verify mechanical and electrical components necessary to perform repairs and eventual Preventative Maintenance. Procurement and fabrication of decontamination equipment has been initiated to decrease further impacts to the project. The fabrication of the B-Cell crane is complete; The vendor is also in the process of fabricating the B-Cell Crane bridge to assist with installation. As a result, the current forecast date for delivery to AVS is <b>March 2, 2021</b>.</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 AVS – B Cell 10-ton crane.	3/2/21	0	Perform remote survey and Rad characterization of A/D Crane.	3/23/21	0	Perform follow-up A/D Crane investigation.	7/15/21	0	Procure/fabricate A/D Crane parts.	11/2/21	0	Perform A/D Crane repair.	12/16/21	0
Recovery Action(s)	FC Date	%																										
Award contract – B Cell 10-ton crane – 324 Building.	6/20/19	100																										
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Risk Title	Unmitigated Risk Impacts	Assessment		Comments															
		Month	Trend																
<b>RL-0041/WBS-041</b>																			
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			<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"> <thead> <tr> <th>Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Perform CHA floor scabbling and apply epoxy floor coating.</td> <td>7/17/19</td> <td>100</td> </tr> <tr> <td>Perform project resumption activities – General CA/CHA.</td> <td>11/23/20</td> <td>25</td> </tr> <tr> <td>Return to Room 18 work – resumption actions.</td> <td>12/16/20</td> <td>10</td> </tr> <tr> <td>Return to airlock work – resumption actions.</td> <td>1/19/21</td> <td>10</td> </tr> </tbody> </table> <p><b>Recovery Assessment:</b> The forecasted completion dates for returning to Room 18 and airlock work were delayed in <b>September</b> due to the impacts of the RL-directed PSWO. 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 floor coating.	7/17/19	100	Perform project resumption activities – General CA/CHA.	11/23/20	25	Return to Room 18 work – resumption actions.	12/16/20	10	Return to airlock work – resumption actions.	1/19/21	10
Recovery Action(s)	FC Date	%																	
Perform CHA floor scabbling and apply epoxy floor coating.	7/17/19	100																	
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Return to airlock work – resumption actions.	1/19/21	10																	
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)																			
No critical risks are identified in <b>September</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 <b>September</b>. 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/RCAs), 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 <b>September</b>. 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 preventative maintenance (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	%																	
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Risk Title	Unmitigated Risk Impacts	Assessment		Comments												
		Month	Trend													
<b>RL-0041/WBS-041</b>																
RCC-300-296-08, 300-296 Failure of Cell Shield Door	<p>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.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Likely (75% to 90%)</p> <p><b>Worst Case Impacts:</b> \$460K, 96 days</p>	●	↔	<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>4/6/21</td> <td>0</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> No significant changes in <b>September</b>. To maintain REC shield door operability, engineering evaluations were conducted, resulting in the implementation of monthly PM 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.	4/6/21	0						
Mitigation Action(s)	FC Date	%														
Perform B Cell and D Cell door pin isolations.	4/6/21	0														
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%)</p> <p><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, core drilling and soil stabilization, micropile installation, and interference removal 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>12/9/20</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 <b>September</b> 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.	12/9/20	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.	12/9/20	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, REAs, 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%)</p> <p><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>73</td> </tr> <tr> <td>Procure universal cutting tool.</td> <td>11/23/20</td> <td>76</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	73	Procure universal cutting tool.	11/23/20	76
Mitigation Action(s)	FC Date	%														
Procure MSM manipulators and storage carts.	12/30/19	100														
Procure spare upper REA.	11/23/20	73														
Procure universal cutting tool.	11/23/20	76														
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%)</p> <p><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>12/22/20</td> <td>75</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 <b>September</b> 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.	12/22/20	75			
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.	12/22/20	75														

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%)</p> <p><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 <b>September</b>. 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>Unassigned Risks</b> (Pending ownership of identified risks/opportunities)																
No unassigned risks identified in <b>September</b> .																

## 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	12.3	10.6	9.7	(1.7)	-13.9%	0.9	8.4%

Numbers rounded to the nearest \$0.1 million.

### CM Schedule Performance (-\$1.7M/-13.9%)

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 COVID-19 guidelines and the “Stay Home, Stay Healthy” order issued by the Washington State governor. 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. 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 (+\$0.9M/+8.4%)

The current month favorable cost variance for the 324 Building Disposition Project and KBO Project is mainly the result of the PSWO issued to CHPRC by RL on March 24, 2020. Performance of work supporting the continuation of essential mission-critical operations and activities able to be performed in a remote manner continued to be reported in this control account (CA). The charging of planned labor to CA, 041.97.01.04 created the favorable variance in the period. In addition, there was an over liquidation

of the labor adder pool. The September passback is a combination of three pools: the absence (ABS) pool, the continuity of service (COS) pool, and the continuity of pension (COP) pool. All pools over-liquidated in FY2020. The COS and COP pool over-liquidations occurred due to lower-than-expected pool costs (e.g., Hanford Employee Welfare Trust [COS and COP] and workers compensation [COS]). The ABS pool over-liquidation is primarily due to lower-than-expected non-personal time bank absences (e.g., R time, EA time, jury duty) than planned based on prior year actuals. These distributions impacted every account that had labor cost. Additionally, a general and administrative (G&A) rate over-liquidation was distributed in September. The G&A over-liquidation was due to lower pool costs resulting from the transfer of indirect COVID-19 costs to direct accounts and the positive labor variance distributions.

## 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	808.2	780.3	781.3	(27.9)	-3.5%	(0.9)	-0.1%	808.2	818.0	36.7	-9.7

Numbers are rounded to the nearest \$0.1 million.

### CTD Schedule Performance (-\$27.9/-3.5%)

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 (-\$9.7/-1.2%)

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		
	Total Funding	Actual Cost	Variance
RL-0041 Spending Forecast	148.5	140.3	8.2
Numbers are rounded to the nearest \$0.1 million.			

### Funds/Variance Analysis

The FY2020 variance of \$8.2 million reflects funding of \$148.5 million and actual costs of \$140.3 million. The FY2020 actual costs reflect a decrease of \$3.1 million from the August spending forecast primarily due to the unanticipated labor rate variance redistribution and G&A passback, which caused significant credit to costs. Additionally, planned subcontracted work continued to push into FY2021 due to the PSWO associated with COVID-19, contributing to the variance.

### 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

September 2020  
CHPRC-2020-09, 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 September reporting period, FFTF continued to maintain essential mission-critical operations in compliance with the U.S. Department of Energy (DOE), Richland Operations Office (RL)-directed partial stop work order issued as a part of the Hanford Site response to the novel coronavirus.

## 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 the Argon System test callout.
- Completed the development of the draft fact sheet for the Argon System *The Resource Conservation and Recovery Act of 1976* addendum.
- Completed the 400 Area binning document to support the engineering evaluation (EE)/cost analysis draft development.
- Completed the wiring modifications and verification for the 480D/P-16 pump replacement.
- Performed walk downs for the P-467 and P-468 recirculating pump, and T-58 and T-87 for vibration and alignment issues.
- Issued contract award for the FFTF compliance upgrades EE.
- Completed the annual exterior fire tank system mechanical inspection.
- Completed pumps P-14 and P-15 electrical discharge press calibrations.
- Completed the 480B, PUMPS P-14 and P-15, motor lubrication.
- Completed the 400A, P-28 Diesel Fire Pump battery inspection, test, and installation of new batteries.
- Completed the 481 Fire Pump P-27/P-28 operations check.
- Completed the 400 West annual exterior inspection of the water tank system equipment.

- Completed the 400 Area annual exterior fire tank system mechanical inspection.
- Completed the 400 Area exhaust fans repairs.
- Performed quarterly and semiannual sanitation pump inspection for P-467 and P-468.

## 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 EE 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 was issued August 24, 2020, and the vendor has initiated the draft evaluation report.

## RISK MANAGEMENT STATUS

None currently identified.

## PROJECT BASELINE PERFORMANCE

### Current Month (CM) (\$M)

RL-0042 FFTF Closure	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	0.5	0.4	0.2	(0.1)	-15.4%	0.2	59.9%

Numbers are rounded to the nearest \$0.1 million.

### CM Schedule Performance: (-\$0.1M/-15.4%)

The CM schedule variance is within reporting thresholds.

### CM Cost Performance: (+\$0.2M/+59.9%)

The CM cost variance is within reporting thresholds.

## Contract-to-Date (CTD) (\$M)

RL-0042 FFTF Closure	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Estimate to Complete (ETC)	Variance at Completion (VAC)
Total	32.3	31.9	26.8	(0.4)	-1.2%	5.2	16.2%	32.3	26.9	0.1	5.4

Numbers are rounded to the nearest \$0.1 million.

### CTD Schedule Performance: (-\$0.4M/-1.2%)

The CTD schedule variance is within reporting thresholds.

### CTD Cost Performance: (+\$5.2M/+16.2%)

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: (+\$5.4/+16.8%)

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
	Total Funding	Actual Cost	
Spending Forecast	4.8	2.9	1.9

Numbers are rounded to the nearest \$0.1 million.

### Funds Analysis

The FY2020 variance of \$1.9 million reflects funding of \$4.8 million and actual costs of \$2.9 million. The FY2020 actual costs reflect a decrease of \$0.3 million from the August spending forecast primarily due to the unanticipated labor rate variance redistribution and G&A passback, which caused significant credit to costs. Additionally, delays experienced from the vendor in initiating the draft development of the compliance upgrades engineering evaluation contributed to the variance.

### 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*



September 2020  
CHPRC-2020-09, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1



CLASSIFICATION (When Filled In)

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

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

<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 / 08 / 24	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2020 / 09 / 30	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> X YES (YYYYMMDD) 2009 / 09 / 18			

WBS.Resp Org Group  ITEM (1)	CURRENT PERIOD						CUMULATIVE TO DATE						REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL	VARIANCE		BUDGETED COST		ACTUAL	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)		
	WORK SCHEDULED (2)	WORK PERFORMED (3)	COST WORK PERFORMED (4)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	COST WORK PERFORMED (9)	SCHEDULE (10)	COST (11)								
34 - Env Program & Strategic Plng	948	1,743	1,017	795	726	112,820	112,820	104,101	0	8,719	0	0	0	112,820	104,101	8,719		
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	9,449	0	-9,449	1,111	1,111	77,462	0	-76,352	0	0	0	1,111	77,462	-76,352		
37 - Resource Mgmt & Strategic Intg	150	150	44	0	105	9,926	9,926	6,533	0	3,393	0	0	0	9,926	6,533	3,393		
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	-3,488	4,098	3,528	7,586	570	1,066,933	1,052,379	1,168,274	-14,554	-115,895	0	0	0	1,082,193	1,202,436	-120,244		
3C - Waste & Fuels Management Project	15,733	16,474	11,509	741	4,965	1,458,614	1,440,095	1,342,303	-18,520	97,791	0	0	0	1,458,614	1,362,372	96,242		
3D - Soil & Groundwater Remediation	9,780	10,714	4,200	934	6,514	1,540,272	1,518,344	1,454,292	-21,927	64,052	0	0	0	1,540,272	1,475,200	65,072		
3G - K Basin Oper & Plateau Remediation Project	6,187	5,538	3,455	-649	2,084	1,048,010	1,037,806	998,716	-10,205	39,090	0	0	0	1,048,010	1,010,461	37,549		
3H - River Risk Management Project	11,440	10,276	5,328	-1,164	4,947	411,539	390,086	395,758	-21,453	-5,672	0	0	0	411,539	425,673	-14,134		
3K - Central Plateau Risk Reduction	7,211	6,123	5,752	-1,088	371	564,625	549,148	540,698	-15,477	8,449	0	0	0	564,625	553,389	11,236		
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
d. UNDISTRIBUTED BUDGET																		
e. SUBTOTAL (Performance Measurement Baseline)	47,962	55,116	44,283	7,154	10,833	6,809,225	6,707,090	6,640,866	-102,136	66,224	0	0	0	6,824,485	6,770,355	54,130		
f. MANAGEMENT RESERVE														43,488				
g. TOTAL	47,962	55,116	44,283	7,154	10,833	6,809,225	6,707,090	6,640,866	-102,136	66,224	0	0	0	6,867,973				

CONTRACT PERFORMANCE REPORT													Form Approved							
FORMAT 3 - BASELINE													OMB No. 0704-0188							
DOLLARS IN THOUSANDS													4. REPORT PERIOD							
1. CONTRACTOR CH2M HILL Plateau Remediation Company			2. CONTRACT a. NAME: Plateau Remediation Contract b. NUMBER: RL14788 c. TYPE: CPAF d. SHARE RATIO:			3. PROGRAM a. NAME: Plateau Remediation Contract b. PHASE c. EVMS ACCEPTANCE d. YES X 9/18/2009			a. FROM: 2020/08/24		b. TO: 2020/09/30									
5. CONTRACT DATA																				
a. ORIGINAL NEGOTIATED COST \$4,312,366			b. NEGOTIATED CONTRACT CHANGE \$2,540,247		c. CURRENT NEGOTIATED COST (A + B) \$6,852,614		d. ESTIMATED COST AUTH UNPRICED WORK \$15,391		e. CONTRACT BUDGET BASE (C + D) \$6,868,005		f. TOTAL ALLOCATED BUDGET \$6,867,973		g. DIFFERENCE (E - F) \$32							
h. CONTRACT START DATE 6/19/2008			i. DEFINITIZATION DATE 6/19/2008		j. PLANNED COMPL DATE 9/30/2020		k. CONT COMPLETION DATE 9/30/2020		l. EST COMPLETION DATE 9/30/2020											
6. PERFORMANCE DATA																				
ITEM (1)	BCWS CUM TO DATE (2)	BCWS FOR REPORT PERIOD (3)	SIX MONTH FORECAST						BUDGETED COST FOR WORK SCHEDULED (NON - CUMULATIVE)										UNDISTRIB BUDGET (19)	TOTAL BUDGET (20)
			+1 Oct-20 (4)	+2 Nov-20 (5)	+3 Dec-20 (6)	+4 Jan-21 (7)	+5 Feb-21 (8)	+6 Mar-21 (9)	FY09-13 (10)	FY14 (11)	FY15 (12)	FY16 (13)	FY17 (14)	FY18 (15)	FY19 (16)	FY20 (17)	FY21 (18)			
a. PM BASELINE (BEGIN OF PERIOD)	6,761,264	45,676	56,228	0	0	0	0	0	3,391,477	391,653	471,323	504,826	485,028	470,649	563,065	539,472	0	0	6,817,492	
<b>b. BASELINE CHANGES AUTH DURING REPORT PERIOD</b>																				
BCR-000-20-002R0 - Remove CPCCTransition Support Scope																	0	0	0	
BCR-011C-20-002R1 - PFP CAP 2 Project Completion Update R1																	(9,281)	15,260	5,979	
BCR-011C-20-004R0 - Move Balance of FY2020 MR to FY2021 - PFP C2																	0	0	0	
BCR-013-20-025R0 - Prepare Tank 11L Closure Plan and Remove T Plant CERCLA Docu																	(0)	0	0	
BCR-013-20-029R0 - W135 MCSC Project MR Draw to Address Use Tax Against Fabrica																	1,014	0	1,014	
BCR-PRC-20-023R0 - Move Balance of FY2020 MR to FY2021 - OA																	0	0	0	
BCRA-PRC-20-024R0 - HPIC Updates September FY2020																	0	0	0	
<b>c. PM BASELINE (END OF PERIOD)</b>	<b>6,809,225</b>	<b>47,962</b>	<b>3,605</b>	<b>4,305</b>	<b>3,008</b>	<b>2,130</b>	<b>2,107</b>	<b>97</b>	<b>3,391,477</b>	<b>391,653</b>	<b>471,323</b>	<b>504,826</b>	<b>485,028</b>	<b>470,649</b>	<b>563,065</b>	<b>531,205</b>	<b>15,260</b>	<b>0</b>	<b>6,824,485</b>	
<b>7. MANAGEMENT RESERVE</b>																			<b>43,488</b>	
<b>8. TOTAL</b>																			<b>6,867,973</b>	

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) 2020 / 08 / 24	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2020 / 09 / 30	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> X YES (YYYYMMDD) 2009 / 09 / 18			

5. PERFORMANCE DATA															
WBS.Resp Org Group  ORGANIZATIONAL CATEGORY (1)	ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	FORECAST (Non-Cumulative)												AT COMPLETION (15)
			SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS						
			+1 OCT 2020 (4)	+2 NOV 2020 (5)	+3 DEC 2020 (6)	+4 JAN 2021 (7)	+5 FEB 2021 (8)	+6 MAR 2021 (9)	APR 2021 (10)	MAY 2021 (11)	JUN 2021 (12)	JUL 2021 (13)	ATCOMPLETE (14)		
300 - Office of the President	(29)	2,306	-	-	-	-	-	-	-	-	-	-	-	-	2,306
303 - Internal Audit	4	644	-	-	-	-	-	-	-	-	-	-	-	-	644
304 - General Counsel	4	592	-	-	-	-	-	-	-	-	-	-	-	-	592
32 - Safety Health Security & Quality	61	9,172	-	-	-	-	-	-	-	-	-	-	-	-	9,172
34 - Env Program & Strategic Plng	42	6,253	-	-	-	-	-	-	-	-	-	-	-	-	6,253
35 - Business Services	53	8,700	-	-	-	-	-	-	-	-	-	-	-	-	8,700
36 - Prime Contract & Proj Integr	156	8,681	-	-	-	-	-	-	-	-	-	-	-	-	8,681
37 - Resource Mgmt & Strategic Intg	43	3,800	-	-	-	-	-	-	-	-	-	-	-	-	3,800
38 - Project Technical Services	34	9,211	-	-	-	-	-	-	-	-	-	-	-	-	9,211
3B - PFP Closure Project	157	55,418	104	125	205	191	202	163	116	86	20	21	114	56,766	
3C - Waste & Fuels Management Project	359	62,237	22	11	8	5	24	21	15	12	2	1	0	62,359	
3D - Soil & Groundwater Remediation	218	45,268	50	41	43	39	22	13	6	2	3	6	91	45,584	
3G - K Basin Oper & Plateau Remediation Project	158	36,291	34	43	41	49	48	42	54	24	14	6	26	36,672	
3H - River Risk Management Project	172	10,960	29	30	30	31	27	26	20	12	9	23	54	11,251	
3K - Central Plateau Risk Reduction	215	22,200	119	106	89	61	28	22	14	16	1	1	73	22,730	
<b>g. TOTAL DIRECT</b>	<b>1,645</b>	<b>281,732</b>	<b>359</b>	<b>357</b>	<b>417</b>	<b>376</b>	<b>350</b>	<b>287</b>	<b>226</b>	<b>152</b>	<b>50</b>	<b>58</b>	<b>358</b>	<b>284,721</b>	

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

**CLASSIFICATION (When Filled In)**

**CONTRACT PERFORMANCE REPORT**

FORMAT 5 - Explanations and Problem Analysis

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> CH2M HILL Plateau Remediation Company		<b>a. NAME</b> Plateau Remediation Contract		<b>a. NAME</b> Plateau Remediation Contract		<b>a. FROM (YYYYMMDD)</b> 2020/08/24			
<b>b. LOCATION (Address and ZIP Code)</b> Richland, WA		<b>b. NUMBER</b> DE-AC06-08RL14788		<b>b. PHASE</b>		<b>b. TO (YYYYMMDD)</b> 2020/09/30			
		<b>c. TYPE</b> CPAF	<b>d. SHARE RATIO</b>	<b>c. EVMS ACCEPTANCE</b> 2009/09/18 NO YES X					

	BCWS	BCWP	ACWP	SV in \$	SV in %	CV in \$	CV %	SPI	CPI
Current:	47,962	55,116	44,283	7,154	14.9%	10,833	19.7%	1.15	1.24
Cumulative:	6,809,225	6,707,090	6,640,866	(102,136)	-1.5%	66,224	1.0%	0.99	1.01
	BAC	EAC	VAC in \$	VAC in %	TCPI				
At Complete:	6,824,485	6,770,355	54,130	0.8%	0.91				

**Explanation of Variance/Description of Problem:**

Current Period Schedule and Cost Variance:

The current month (CM) positive cost variance is primarily due to an over liquidation of the labor adder pool. The September passback is a combination of three pools: the absence (ABS) pool, the continuity of service (COS) pool, and the continuity of pension (COP) pool. All pools over liquidated in FY2020. The COS and COP pool over liquidations occurred due to lower than expected pool costs (e.g., Hanford Employee Welfare Trust [COS and COP] and workers compensation [COS]). The ABS pool over-liquidation is primarily due to lower than expected non-PTB absences (e.g., R time, EA time, jury duty) than planned based on prior year actuals. These distributions impacted every account that had labor cost. Additionally, a general and administrative (G&A) rate over liquidation was distributed in September. The G&A over liquidation was due to lower pool costs resulting from the transfer of indirect COVID-19 costs to direct accounts and the positive labor variance distributions.

The CM positive schedule variance is primarily the result of the implementation of the revised scope, cost and schedule baseline for the completion of the RL-0011.C2 project planned for completion in May 2021, which resulted in negative budgeted cost for work scheduled for the CM. This variance was partially offset by high risk/high PPE use scope, which has not resumed.

Cumulative Schedule Variance: The variance is within reporting thresholds.

Cumulative Cost Variance: The variance is within reporting thresholds.

**Impact:**

Current Period Schedule: The current month schedule variance is not expected to impact the overall contract schedule.

Current Period Cost: Cost impacts are being estimated and will be incorporated in the project estimate to complete (ETC)

Cumulative Schedule: N/A

Cumulative Cost: N/A

**Corrective Action:**

Current Period Schedule: No corrective actions have been identified.

Current Period Cost: No corrective action necessary.

Cumulative Schedule: N/A

Cumulative Cost: N/A

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

CHPRC continues to track completion of the contract within budget. Currently, a variance at completion of \$54.1 million is projected, with an additional \$43.5 million of management reserve (MR) for a total positive variance of \$97.6 million. For September, the project was 14.9 percent ahead of schedule and 19.7 percent under planned cost. Contract to date, the project was 1.5 percent behind schedule and 1.0 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 September. The \$32K delta is a result of rounding over time for implementation of multiple change order definitizations.

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

Six BCRs were implemented in the current period:

- BCR-011C-20-002R1, PFP CAP 2 Project Completion Update
- BCR-011C-20-004R0, Move Bal of FY2020 MR to FY2021 - PFP C2
- BCR-013-20-025R0, Prepare Tank 11L CP and Remove T-Plant CERCLA Docs
- BCR-013-20-029R0, W135 MCSC Project MR Draw to Address Use Tax Against Fab Contracts
- BCRA-PRC-20-024R0, HPIC Updates for September FY2020
- BCR-PRC-20-023R0, Move Bal of FY2020 MR to FY2021 - OA

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

Variance in Performance BAC and EAC: The VAC between the BAC and EAC this month is a +\$54.1 million, +.08% and is within reporting thresholds.

**Format 1 and 3 Contract Data:**

**Contract Price Adjustments**

<b>CPS - In Process</b>		
	<b>Total Authorized Unpriced Work</b>	<b>\$15,390.9</b>
<b>Approved Adjustments to Contract Price (not reflected in B.4-1 Table)</b>		
	<b>Total Negotiated Cost Changes</b>	<b>\$15,390.9</b>
<b>Grand Total Adjustments</b>		

**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	N/A

**Management Reserve Activity**

BCR Number	Title	PBS	Fiscal Year	MR
BCR-011C-20-004R0	<i>Move Balance of FY2020 Management Reserve to FY2021 - PFP C2</i>	RL-0011.C2	2020 2021	(\$573.1K) \$573.1K
BCR-011C-20-002R1	<i>PFP CAP 2 Project Completion Update</i>	RL-0041 RL-0011.C2	2020 2021	(\$5,729.3K) \$5,729.3K
BCR-013-20-029R0	<i>W135 MCSC Project MR Draw to Address Use Tax Against Fabrication Contracts</i>	RL-0013	2020	\$1,014.3K
BCR-PRC-20-023R0	<i>Move Balance of FY2020 Management Reserve to FY2021 - OA</i>	RL-0011 RL-0013 RL-0030 RL-0040 RL-0041 RL-0042	2020 2021	(\$29,292.8K) \$29,292.8K

**Fee Activity**

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

**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 Controls Staff	<b>Date:</b> 10/16/2020	<b>Approved by:</b>	<b>Date:</b>
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# 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

September 2020  
CHPRC-2020-09, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

**J. A. Lerch**  
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

## PROGRAM SUMMARY

Project Services and Support functional activities continue to provide support and technical services to all CH2M HILL Plateau Remediation Company (CHPRC) projects as well as central management of crosscutting services. This section is reported quarterly.

### EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
20-EMS-ADMIN-OBJ1-P1	Reduce energy intensity.	Increase facility occupancy rates to greater than 86 percent by compressing occupancy and vacating underutilized facilities. Occupancy compression to be maintained through disposition of buildings or square footage reduction.	9/30/2020	100%
20-EMS-PTS-OBJ1-P1	Spill prevention/waste minimization/pollution prevention.	Document quarterly surveillances on a work site assessment (WSA).	9/30/2020	100%
20-EMS-PTS-OBJ2-P1	Evaluate upcoming Project Technical Services (PTS) work activities that will involve water discharge to the ground in the 200 East Area, specifically when water is used for dust suppression during PTS project activity.	Document discussion summary in email to PTS project manager. Report quarterly.	9/30/2020	100%
20-EMS-PTS-OBJ3-P1	Monthly chemical management inspection/pollution and spill prevention.	Ensure chemical products are accurately tracked, maintained and excessed/disposed. Perform quarterly assessments on chemical inventory locations.	9/30/2020	100%

## TARGET ZERO PERFORMANCE

	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	2	N/A
Near-Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### Safety, Health, Security, and Quality (SHS&Q)

- There have been no injuries reported during this quarter in the functional groups.
  - o Occupational Safety and Industrial Hygiene (OS&IH) accomplishments:
    - Generated Condition Report, CR-2020-0999, in the Conditional Reporting and Resolution Systems (CRRS) to address another Hanford contractor (OHC) near-miss fall protection incident.
    - In response to CR-2020-0999, issued Required Reading for OS&IH managers, Fall Protection Competent Persons and OS&IH personnel regarding portable guardrail system inspections.
    - Participated in the Aging Structures mockup at American Rock Products in support of an upcoming Hazard Review Board meeting.
    - Performed an annual review of SHS&Q-2020-WSA-23906, *CHPRC Worker Safety and Health Program*, to document significant additions or changes.
    - Performed annual assessment of SHS&Q-2020-WSA-23892, *Beryllium Exposure Hazards*.
    - Provided Technical Authority (TA) support for K Basin Operations (KBO) Permit Required Confined Space entry, specifically supporting horizontal retrieval process and planning.
    - Updated and published a revision to site form A-6005-726, Office/Building Inspection.
    - Finished Industrial Hygiene (IH) review of the environmental disinfecting wipe effort.
    - Completed periodic review of PRC-PRO-SH-077, *Reporting, Investigating, and Managing Health, Safety and Property/Vehicle Events*.
    - Updated and issued revision to the CHPRC General Hazard Analysis (GHA) to incorporate additional coronavirus (COVID-19) controls.
    - Revised and published PRC-MD-SH-54500, *COVID-19 Notification Response*.
    - Revised and published PRC-MD-SH-54505, *COVID-19 Briefing and Implementation of Social Distancing Guidelines*.
    - Updated Course Number 6C1900, *CHPRC COVID-19 Briefing*, to capture revised procedural content.

- Completed annual review of PRC-MP-SH-32219, *10 CFR 851 CHPRC Worker Safety and Health Program Description*.
- Completed SHS&Q-2020-WSA-23907, *Evaluation of the CHPRC Worker Safety and Health Program Implementation*.
- Completed Program Level Industrial Hygiene Exposure Assessment and associated sampling plan for annual Beryllium Affected Worker sampling.
- Developed the CHPRC COVID-19 Dashboard.
- Completed SHS&Q-2020-WSA-24300, *Chemical Management Assessment*.
- Completed SHS&Q-2020-WSA-24045, *Annual Fall Protection Program Evaluation*.
- Completed SHS&Q-2020-WSA-23889, *CAIRS Quarterly Assessment*.
- Completed the semi-annual Periodic Beryllium Report to the site occupational medical director per DOE-0342, Revision 2A.
- Supported establishment of new Respiratory Protection Equipment Issue Station for PTS.
- Completed SHS&Q-2020-WSA-24042, *Annual Respiratory Protection Program Assessment*.
- Completed SHS&Q-2020-WSA-23890, *Annual Vehicle Safety & Tertiary Road Assessment*.
- Provided technical evaluation of excavation configuration in support of project work scope.
- o Radiological Control (RadCon) accomplishments:
  - Radiological control technician (RCT) trainees – Continue the process to evaluate knowledge and skill retention.
  - Continued to provide radiological work planning mentoring to Central Plateau Risk Management (CPRM).
  - Conducted monthly U.S. Department of Energy (DOE), Richland Operations Office (RL) “Stoplight” meeting to discuss RadCon performance.
  - Conducted monthly RadCon manager (RCM) presentations to RL.
  - Continued providing timely updates to the Radiological Protection Organization to ensure important information is shared.
  - Continued work with improving, troubleshooting and testing of Sentinel software and personnel access issues.
  - Continued progress noted in Radiological Control First Line Managers and RCM Forum meetings.
  - Continued to work with Mission Support Alliance, LLC (MSA) to resolve Survey Simple software issues.
  - Continued to provide program and project support to contamination control issues at the 324 Building Demolition Project, including participation in development and commencement of advanced doffing training for radiological workers. Advanced training was evaluated and determined to be needed at CPRM.
  - Continued evaluation for new sealed source control database in development.
  - Continued evaluation of Smear, Air, and Lapel Tool revision.
  - Continued with alpha/beta continuous air monitoring testing and evaluation at the Waste and Fuels Management Project (W&FMP).
  - Continued Sentinel Radiological Work Permit (RWP) Preparer’s Course training of personnel.
  - Conducted interviews with program and project RCMs and made offers to two health physicists needed to support program and project activities, with one hired for CPRM.
  - Continued procedure and software changes to support approval of Hanford Forum verification survey technical position document.
  - Commenced review/approval on technical evaluations for Soil and Groundwater Remediation Project (S&GRP) Contaminated Media, B Plant.

- Approved technical evaluations for 203A, Solid Waste Operations Complex (SWOC) Hard-To-Detect, 600 BC Control Area.
- Completed writing a technical evaluation for 203A Plutonium Uranium Extraction acid pump house.
- Continued to work with Plutonium Finishing Plant (PFP) and Resource Management and Strategic Integration (RM&SI) to establish radiological resource redeployment strategy.
- Continued reoccurring monthly interface meetings with the Radiation Protection Program manager, Project Environmental Safety and Health directors, Project RadCon managers and the Radiological Protection director.
- Continued to support the Radiological Protection director reoccurring rotating meeting to attend project RCT morning meetings to facilitate direct communications.
- Continued evaluation on the use of the Centers for Disease Control and Prevention ultraviolet lights to disinfect radiological instrumentation.
- Continued revisions to Statement of Work documents for Radiological Instruments, Dosimetry, and Radiological Records Services.
- Developed technical position about the presence of Tc-99 and Uranium in 203A.
- Conducted MicroShield Certification classes for Radiation Protection staff.
- Radiological Work Site Assessments:
  - Completed SHS&Q-2020-WSA-24057, *A Report on the Radiation Protection Program Clearance Program in Support of DOE O 458.1 Chg. 3.*
  - Continued SHS&Q-2020-SURV-24452, *CHPRC 10 CFR 835 Occupational Radiation Protection, Subpart E, Monitoring of Individuals and Areas.*
  - Completed SHS&Q-2020-WSA-26325, *Self-imposed requirements in PRC-PRO-RP-40109, “Radiological Work Planning.”*
  - Completed SHS&Q-2020-WSA-26360, *Requirements for putting Action Levels in RWP.*
  - Completed SHS&Q-2020-WSA-27052, *Radiological Work Planning Review of CPRM.*
  - Commenced SHS&Q-2021-WSA-27117, *Shipment Receipt Survey Processes at the Environmental Restoration Disposal Facility (ERDF).*
- Technical Basis Document Changes:
  - Completed revision to PRC-1205-TED-0110, *Alternate Whole Body Surveys at the 105KW Basin Contaminated Area (CA) and the 105KW Annex CA.*
  - Completed revision to PRC-1209-CDMP-0118, *CHPRC Disposable Radiological PPE Selection Criteria to define Gloves, standard gloves, and clarify term “Surgeons Gloves”.*
  - Completed revision to PRC-0906-PIR-0017, *Radiological Source Certifications.*
  - Completed PRC-2004-CDMP-0152, *CHPRC Protocols for Entering Buildings and Outdoor Areas Not Routinely Occupied.*
  - Completed revision to PRC-1209-CDMP-0118, *CHPRC Disposable Radiological PPE Selection Criteria.*
  - Completed revision to PRC-1307-CDMP-0127, *Radiological Engineering Methods Technical Basis Document.*
  - Revising PRC-0903-CDMP-0008, *Standard Process for Documenting PRC Facility/Project Radionuclide Characterizations.*
  - Revising PRC-1805-CDMP-0145, *Detection Capability of Portable Radiation Detection Instruments.*
  - Revising PRC-0904-CDMP-0011, *CHPRC Workplace Air Monitoring Technical Basis Document.*

- Completed PRC-2006-TED-0153, *Conducting Radiological Work without Respiratory Protection During System Breaches* for Lines  $\leq$  Two Inches (inside diameter) at the 100K Closure Project.
- Continued TED process for CHPRC-00073, Article 316.9, to expand glove types when performing work requiring additional strength or abrasion resistance.
- Completed Technical Review of 324 Soil and Debris Removal Dose Estimates.
- Conducted Central TA/Project Point of Contact Meetings for all Radiological functional areas.
- Coordinated with OHCs on a plan to ensure Radiological Instrumentation is available to support a phased resumption of work plan.
- Drafted transmittal letter for exemption request to the authorized limits.
- Issued IOM CHPRC-2002041, *Extended Dosimeter Wear Periods in 2020 Due to COVID-19*.
- o Nuclear Operations Support & Compliance accomplishments:
  - Correspondence transmitted to RL:
    - Letter, CHPRC-2002288, *Transmittal of the Evaluation of Safety of the Situation for Operational Awareness DOE-ASMT-2020-4142, SWOC MDSA Review, CHPRC-04448, Revision 0*, dated July 1, 2020.
    - Letter, CHPRC-2001602.1, *Transmittal of the RL Reviewed and Comment Incorporated 2020 Annual Update to the Tank 241-Z-361 Documented Safety Analysis, HNF-20503, Revision 4, and the Technical Safety Requirements for the Tank 241-Z-361 Facility, HNF-20504, Revision 6*, dated July 6, 2020.
    - Letter, CHPRC-2002346, *Transmittal of the Documented Safety Analysis for the Canister Storage Building, HNF-52060, Revision 1; the Unreviewed Safety Question Determinations Summary; and the Fire Hazards Analysis for the Canister Storage Building, HNF-52062, Revision 2*, dated July 14, 2020.
    - Letter, CHPRC-1804279.3, *Transmittal of the Final Hazard Categorization for Core Barrels in Staging Area CBI in 218W-3AE Burial Ground, CHPRC-04398, Revision 0*, dated July 27, 2020.
    - Letter, CHPRC-2002602, *Submittal of the 2020 Annual Update of the 216-Z-9 Waste Storage Crib Facility Safety Basis and the Unreviewed Safety Question Determinations Summary*, dated July 29, 2020.
    - Letter, CHPRC-2 001110.1, *Transmittal of the RL Reviewed and Comment Incorporated Management of Cesium and Strontium Capsules Project (W-135) Safety Design Strategy, CHPRC-02236, Revision 3*, dated July 29, 2020.
    - Letter, CHPRC-2002772, *Submittal of the 2020 Annual Update of the 224-T Facility Safety Basis and the Unreviewed Safety Question Determinations Summary*, dated August 6, 2020.
    - Letter, CHPRC-2002075.1, *Rescind Documentation of the Final Hazard Categorization of the 231-Z Facility*, dated August 10, 2020.
    - Email, CHPRC-2002974, *CHPRC-2002974 – CHPRC Cost Estimate Proposal for IEWO 350701 mod 5, FY21 Support for SPA Documents*, dated August 18, 2020.
    - Letter, CHPRC-1902534.1, *Transmittal of the RL Reviewed and Comment Incorporated Integrated Disposal Facility Final Hazard Categorization, IDF-00001, Revision 0*, dated August 20, 2020.
    - Letter, CHPRC-2002944, *Transmittal of the Final Hazard Categorization for the 100K Ion Exchange Module, CHPRC-04483, Revision 0, for Approval*, dated August 24, 2020.

- Letter, CHPRC-2002943, *Transmittal of the Final Hazard Categorization for the Plutonium Finishing Plant Debris for Long Term Storage, CHPRC-04486, Revision 0, for Approval*, dated August 24, 2020.
- Letter, CHPRC-2002938, *Transmittal of the Final Hazard Categorization for the Shipment of Pacific Northwest National Laboratory Debris, CHPRC-04484, Revision 0, for Approval*, dated August 24, 2020.
- Letter, CHPRC-2003035, *Transmittal of the Final Hazard Categorization of the One-Time Request for Shipment of the Sludge Garnet Filters, CHPRC-04488, Revision 0, for Approval*, dated August 26, 2020.
- Letter, CHPRC-2003040, *Transmittal of the Final Hazard Categorization for Shipment of Transuranic Waste to the Central Waste Complex in Type A Waste Isolation Pilot Plant – Compliance Packages, CHPRC-04485, Revision 0, for Approval*, dated August 26, 2020.
- Letter, CHPRC-2001887, *Transmittal of the 224-B Facility Documented Safety Analysis, CP-18179, Revision 10, and the Transitional Fire Hazards Analysis for the Concentration Facility (Building 224B), CP-42689, Revision 2*, dated August 31, 2020.
- Letter, CHPRC-2001052A R1, *Transmittal of the RL Reviewed and Comment Incorporated Hanford Sitewide Transportation Safety Document, DOE/RL-2001-36, Revision 3*, dated August 31, 2020.
- Letter, CHPRC-2003055, *Transmittal of the Final Hazard Categorization for Shipment of Large/Heavy Long Length Contaminated Equipment, CHPRC-04512, Revision 0, for Approval*, dated September 2, 2020.
- Letter, CHPRC-2003143, *Transmittal of the CH2M HILL Plateau Remediation Company Criticality Safety Program Description Document, PRC-NS-00004, Revision 4, for RL Review and Approval*, dated September 8, 2020.
- Letter, CHPRC-2003109, *Transmittal of the Final Hazard Categorization for Shipment of Grouted Long Length Contaminated Equipment, CHPRC-04510, Revision 0, for Review and Approval*, dated September 8, 2020.
- Letter, CHPRC-2003110, *Transmittal of the Final Hazard Categorization for Shipment of Waste Debris Retrieval Packages, CHPRC-04516, Revision 0, for Approval*, dated September 8, 2020.
- Letter, CHPRC-2003237, *Transmittal of the Final Hazard Categorization for Shipment of Onsite Transfer Cask Samples, CHPRC-04526, Revision 0, for Approval*, dated September 10, 2020.
- Letter, CHPRC-2003111, *Transmittal of the Final Hazard Categorization for Shipment of Steel Pig Samples, CHPRC-04517, Revision 0, for Approval*, dated September 10, 2020.
- Letter, CHPRC-2003111, *Transmittal of the Fuel Special Packaging Authorization, HNF-63250, Revision 0*, dated September 17, 2020.
- o Correspondence received from RL:
  - Letter, 20-NSD-0026\_RL, *Transmittal of the Approval for the Evaluation of Safety of the Situation for Operational Awareness DOE-ASMT-2020-4142, SWOC MDSA Review, CHPRC-04448, Revision 0*, dated July 29, 2020.
  - Surveillance DOE-ASMT-2020-3874, Functional Area Performance Evaluation of Nuclear Safety (FY20 Q3).
  - Surveillance DOE-ASMT-2020-3886, Functional Area Performance Evaluation of Transportation (FY20 Q3).

- Letter, 20-NSD-0024\_RL, *Transmittal of the Safety Evaluation Report for the 2020 Annual Update to the Tank 241-Z-361 Documented Safety Analysis, HNF-20503, Revision 4; and the Technical Safety Requirements for the Tank 241-Z-361 Facility, HNF-20504, Revision 6*, dated August 27, 2020.
- Letter, 20-PFD-0028, *Approval of the Management of Cesium and Strontium Capsules Project (W-135) Safety Design Strategy, CHPRC-02236, Revision 3*, dated September 3, 2020.
- Assessment, DOE-ASMT-2020-1321, Nuclear Safety.
- Letter, 20-NSD-0027\_RL, *Use of Technical Safety Requirements Recovery Plans and Risk Ranking Control Decision Process*, dated September 22, 2020.
- o Contractor Assurance Regulatory Reporting accomplishments:
  - 579 Condition Reports (CRs) were screened:
    - No significant issues were identified.
    - Six adverse issue were identified.
    - 234 Track Until Fixed issues were identified.
    - 124 Trend-Only items were identified.
    - 206 Opportunities for Improvement (OFI) items identified.
    - Nine Screened Out.
  - 591 CRs administratively closed.
  - 849 CRs actions administratively closed.
  - Provided Course Number 600082, *CHPRC Responsible Manager Training, Issues Management*, to CHPRC personnel.
  - Provided full-time support to PFP Issues Management and Occurrence Reporting activities.
  - Provided Occurrence Reporting support to the River Risk Management Project (RRMP).
  - Supported Apparent Cause Evaluation and submitted a final report for Occurrence Reporting & Reporting System (ORPS) report EM-RL--CPRC-324FAC-2020-0002, *A Deactivated Light Fixture Fell From Its Wall Mount Location (Near Miss)*.
  - Submitted ORPS notification and final report, and supported Apparent Cause Evaluation for EM-RL--CPRC-GENLAREAS-2020-0002, *Near Miss - A Subcontractor Employee Entered A Moving Vehicle*.
  - Submitted ORPS notification/final report for EM-RL--CPRC-GENLAREAS-2020-0003, *Rock Ejected From Under The Tire Of A Truck Struck A Parked Vehicle*.
  - Provided support for the bi-monthly Defense Nuclear Facilities Safety Board (DNFSB) Resident Inspector Meeting.
  - 46 documents were provided in response to DNFSB requests for information.
  - Provided support to the DNFSB Hanford Site resident inspectors.
  - Coordinated review and comment resolution of the Weekly Hanford Site Resident Inspector Report.
  - Continuing support and coordination for an upcoming Emergency Preparedness and Radiological Program Review by the DNFSB (teleconference).
  - One Just-in-Time report was submitted in OPEXShare: 2020-SHSQ-0004, *Unawareness of Radiological Work Permit Void Limit Leads to Improper Response*.
  - Two internal reports were submitted in OPEXShare: 2020-SGRP-0002, *Proper Management of Corrective Actions Can Be a Barrier to Help Preclude Events*; and 2020-SGRP-0003, *Communication Ensures New Lockout/Tagout Devices are Evaluated and Error Precursors Identified*.

- One external Lessons Learned was submitted in OPEXShare for Hanford Site use: 2020-CPRM-0003, *Importance of Implementing COVID-19 Controls and Management Follow-up*.
- Published the monthly Contractor Assurance System Summary Report.
- Continued development of Computer Based Training for Course Number 080983, *DOE Enforcement Program (PAAA/WSH) Overview Training*.
- Provided leadership and technical support to the development of the CHPRC Integrated Contractor Assurance System (iCAS), including assessments, issues management and nonconformance reporting.
- Conducted on-site workshops to further refine and develop iCAS workflows.
- o Performance Oversight, Assessment, and Quality Assurance accomplishments:
  - Performed and published final report for and performed fieldwork for 10 CFR 835 Triennial Assessments Subpart E, *Monitoring of Individuals and Areas*.
  - Developed assessment plans and performed fieldwork for 10 CFR 835 Triennial Assessment Subpart L, *Contamination Control*.
  - Supported audit DOE-AMST-2020-0309.
  - Initiated and completed planning and fieldwork for SHS&Q-2020-MA-24049, *Fiscal Year 2020 Integrated Safety Management System Effectiveness Declaration*.
  - Initiated and published surveillance SHS&Q-2020-SURV-24802, *PRC-MP-QA-599, Section 13, Commercial Grade Dedication Items & Services*.
  - Performed and published SHS&Q-2020-SURV-26068, *PRC-MP-QA-599 Section 8.0, Follow-on IEP-24800*.
  - Published SHS&Q-2020-SURV-26117, *Follow-up Surveillance – PRC-MP-QA-599, Section 13, Commercial Grade Dedication (CGD) Items & Services (includes OCRWM)*.
  - Provided specific mentoring and feedback to assessors and responsible managers who conducted management assessments. Feedback was provided to help improve the quality, including clarity and readability of future reports. Provided specific assessment mentoring to KBO, CPRM, S&GRP, RRMP, W&FMP, Prime Contract and Project Integration (PC&PI), Business Services, RM&SI, and SHS&Q organizations.
  - Updated third quarter fiscal year (FY) 2020 Performance Objectives, Measures, and Commitments status.
  - Published SHS&Q-2020-SURV-24799, *Quality Improvement*.
  - Published SHS&Q-2020-SURV-24798, *Nonconformance Reporting*.
  - Initiated and published SHS&Q-2020-SURV-26200, *Supplier Rebar Fabrication*.
  - Initiated and published SHS&Q-2020-SURV-26127, *Suspect/Counterfeit Item Follow-Up*.
  - Initiated and published SHS&Q-2020-SURV-26146, *OCRWM Follow-on Surveillance*.
  - Initiated and published SHS&Q-2020-SURV-24761, *FY21 Required Assessments*.
  - Initiated and published SHS&Q-2020-SURV-26383, *PRC-MP-QA-599, 2.0 Training*.
  - Initiated and published SHS&Q-2020-SURV-24115, *Hold point/Inspection point evaluation*.
  - Initiated SHS&Q-2020-SURV-26454, *PRC-MP-QA-599, as implemented through, PRC-PRO-WKM-12115, Work Management*.
  - Completed FY2021 Assessment Planning.
  - Provided ongoing support of iCAS assessment and nonconforming items modules.
- o Fire Protection (FP) accomplishments:
  - Fire Protection Engineering manager was hired and is on-site.
  - Fire Protection Program Graded “Green Light” for 30 consecutive month.
  - Successfully completed Fire Protection Engineering Training Academy pilot program in Microsoft Teams (returning to regular weekly training sessions on September 17, 2020).

- Fire Hazard Analyses (FHA) 105K East was approved, FHA 105K West is in final internal approval, FHA 402 was Approved, FHA Fast Flux Test Facility is in final comment resolution, 224B Building is in the Hanford Fire Marshal Organization review comment phase, FHAs Reduction-Oxidation (REDOX) is 70 percent complete, and the FHA B Plant is 50 percent complete.
- Completed a technical review of shop drawings and hydraulic calculations for the 2403WC Building fire sprinkler replacement and 2402WC fire alarm system replacement.
- Completed quarterly 324 Building combustibile material surveillance and Fire Protection Procedures WSA.
- Completed a National Fire Protection Agency (NFPA)-25 path forward and an MSA/RL concurrence with post COVID-19 moratorium for fire system inspection testing and maintenance.
- Supported the revision of HFMP 2019-0447 by reviewing WSA SHS&Q-2020-WSA-24025 and CRRS CR-2020-0857.
- Developed Lines of Inquiry for SHS&Q-2020-WSA-24141 on the Fire Marshal Permit System.
- Expedited PFP trailer village facility Fire Protection Assessments to facilitate the demolition of the trailer village.
- Participated in the NFPA-13 Sprinkler Bends for Hanford Facilities Strategy Workshop to establish a working solution to a site-wide issue.
- Developed alternative combustibile loading limit methodology for the 324 Building Air Lock.
- FP staff continued to perform numerous work package reviews and issued Hanford Fire Marshal permits in support of planned activities.
- Continued proactive engagement in the Hanford Fire Protection Integration Board to resolve technical and logistical challenges common to the Hanford contractor FP programs.
- FP staff continue to perform in-progress reviews of FHAs and preparing updates to specific sections for three transitional facilities.

## Environmental Program and Strategic Planning (EP&SP)

### • Environmental Protection

- o Assisted with an environmental compliance need to provide information on CPRM-operated non-road and permitted diesel engines. Provided guidance for developing and implementing a tracking program to identify information that needs to be collected and maintained for record. Participated in identifying and developing a site-wide working group that will focus on compliance with non-road and permitted diesel engines.
- o EP&SP hosted a town hall meeting to discuss the use of chemical disinfectant products that may be effective against COVID-19, and when used, will not generate wastes that require management under the State of Washington Dangerous Waste Regulations. A multi-function team evaluated a number of disinfectant products and identified a few that meet both criteria in an effort to direct future purchases toward replacement chemicals.
- o Reviewed and provided updates to computer-based training Course Number 600211, *Universal Waste*.
- o Submitted the 276-BA Class 1 permit modification, PCN-276-BA-2020-01, to the Washington State Department of Ecology (Ecology) for their approval to remove the clean-closed unit from the *Resource Conservation and Recovery Act of 1976* (RCRA) permit. Changes were needed to convey the removal of 276-BA Organic Storage Area, Closure Unit Group 32 requirements from the permit.
- o Submitted CHPRC input to MSA for the quarterly RCRA permit modification of Attachment 4A, to update the list of qualified Building Emergency Directors and Building Wardens.

- o Reviewed the Memorandum of Agreement between RL and Ecology for the new ambient air boundary that has been determined, and provided a summary of the agreement to project point of contacts, emergency operations center, environmental compliance office, and emergency management (EM) and provided a formal response of potential impacts to CHPRC operations to RL.
- o Received approval from Ecology on September 8, 2020, for Integrated Disposal Facility (IDF) Class 1 permit modification (PCN-IDF-2020-04). This permit modification will allow the IDF leachate collection tanks to convert the floating tank covers to fixed dome covers.
- o Developed A crosswalk between Tracking Inspection Actions for Regulatory Agencies (TIARA) action steps and types associated documents. Identified and addressed next-phase TIARA database development issues regarding file structure, submittal of email text and object identity for a staging and records folder location.
- o Provided input for Transition Briefing Book updates.
- o Participated in the identification of boiler compliance conditions and associated responsibilities, scheduled to transition to CHPRC in FY2021.
- **Environmental Compliance and Quality Assurance**
  - o Assessment status
    - Completed surveillance of the waste site determination process on August 13, 2020, that resulted in two no findings and four OFIs.
    - Completed independent assessment of the Hanford Analytical Services Quality Assurance Requirements Document on August 17, 2020, that resulted in no findings or OFIs.
    - Completed independent assessment of the CHPRC Environmental Management System on September 2, 2020, that resulted in no findings and two OFIs.
    - Completed surveillance of dangerous waste accumulation areas on September 2, 2020, that resulted in no findings or OFIs.
    - Completed surveillance of drinking water compliance on September 29, 2020, that resulted on no findings and one OFI.
    - Completed surveillance of *National Environmental Policy Act of 1969 (NEPA)*, *State Environmental Policy Act of 1971 (SEPA)* and historical protection on September 30, 2020, that resulted on no findings or OFIs.
    - Completed surveillance of Environmental Quality Assurance Protection Plan compliance on September 30, 2020, that resulted in no findings of OFIs.
    - Completed surveillance of spills on September 30, 2020, that resulted in three findings and four OFIs.
- **Demonstrate active leadership and progress toward obtaining new RCRA permit for the Hanford Site**
  - o Facilitated and participated in the following meetings:
    - Weekly permit project management team meetings.
    - Weekly permit meeting for Hanford Site contractors.
    - Weekly schedule strategy discussions with Ecology.
    - Bi-weekly schedule status meetings with RL, Office of River Protection (ORP), Ecology and contractors.
    - Monthly Tier 2 meeting with RL, ORP and Ecology senior management.
  - o Maintained the Hanford Site RCRA permit schedule to reflect progress against the baseline schedule plan.
    - Provided a detailed monthly schedule report and analysis for progress on the permit to Ecology, RL, ORP and the Hanford Site contractors.

- Provided tracking and status of open issues that are preventing progression of the permit.
- o Provided full-time regulatory expertise and project management support.
- **Quality and timeliness of key documents submitted**
  - o From July through September 2020, 105 environmental documents supporting various CHPRC projects were completed through EP&SP Publication Services, established to provide a systematic process for performing technical editing and formatting of environmental documents.
  - o As part of continuous improvement, an author-training workshop was held on September 2, 2020, for staff from various CHPRC projects and functions. The workshop focused on the topics of document planning, writing and finalization, along with resources and tools that are available to support authors.

### **Business Services**

- **Supply Chain/Acquisitions:**
  - o Released the Request for Proposal (RFP) for transuranic (TRU)/TRU mixed (M) waste treatment services to be performed in FY2021.
  - o Developed acquisition strategy with S&GRP to establish a cost estimate for performing horizontal drilling on the Hanford Site. Provided a letter to potential interested subcontracting parties.
  - o Completed the acquisition strategy for constructing the 105K East Safe Storage Enclosure. The work will be divided into two parts with the first contract being limited to civil and earthwork, including foundations. The second will install the superstructure and complete the enclosure.
  - o Received subcontractor annual cost incurred submissions from applicable subcontractors. Commenced with planning appropriate audits.
  - o Awarded new construction labor services contract after receiving consent from RL. Commenced with the planning necessary to audit and establish FY2021 rates for the new contract.
  - o Continued to support information exchange/technology briefings with subcontractors that have the capability to perform horizontal drilling. This technology may be used at the Hanford Site for areas where vertical drilling is not practical.
  - o Commenced with the planning for temporary staffing of health physicists in support of CHPRC SHS&Q's Radiological Protection organization.
  - o Updated Transition Briefing Books and common reports to prepare for the anticipated transition.
  - o Completed a review of rental equipment to ensure accuracy in preparation for transition. Each equipment custodian was contacted to ensure the equipment was still needed and in their possession.
  - o Completed negotiations with an OHC to reimburse payment for final indirect rates for 2008-2014.
  - o Completed testing and delivered enhancements to the Buyer's Technical Representative (BTR) Cost Acknowledgment System (BCAS). There are now automated notices and status of cost acknowledgment's due and provides the ability for BTRs to delegate acknowledgments to others who may be more familiar with the work.
  - o Surpassed annual FY2020 goal of \$5.4 million by achieving in excess of \$7 million in strategic sourcing savings. Additionally, developed and provided a FY2021 actionable spending forecast for the purposes of establishing CHPRC's strategic sourcing goal savings. For FY2021, the goal will be \$5.5 million, which is the highest goal CHPRC has had since strategic sourcing practices were implemented in 2012.
  - o Established the acquisition strategy for facility modifications and equipment installation at the Waste Encapsulation Storage Facility (WESF). Released the RFP for the work. Proposals are due late in October.

- o Participated with Environmental Programs to identify four alternative disinfecting wipes that have a smaller environmental footprint. Supply Chain confirmed product availability through some of the regional industrial supply houses.
- o Completed an assessment on subcontractor submittals and records as it relates to subcontracts for temporary staffing. The assessment did confirm the process is working as designed but a more central point for receiving subcontractor certifications would benefit the process.
- o Performed Buyer Update Training. Specific topics covered included: Processing of credit invoices, process rate adjustment invoices for cost reimbursement contracts, documenting market research and documenting acquisition planning.
- o Held a BTR Forum with approximately 96 individuals in attendance. Presentations were provided on updated forms, vice president approval requirements and enhancements to the BCAS.
- o Assisted Washington River Protection Solutions (WRPS) with development of a specific business case as it applies to the procurement of waste boxes.
- o Developed a closeout plan for a subcontractor as part of a final action under an approved settlement agreement.
- o Enhanced the Contracted Labor Resource procedure to better clarify requirements for extensions.
- o Developed and released a BTR communication to provide clarification on BTR responsibilities as part of the resumption of work plan.
- o Conducted employee and customer satisfaction surveys to evaluate the performance of the Supply Chain organization as part of annual Balanced Scorecard feedback.
- o Participated in a Foreign National Visitor and Access training with MSA. Reviewed the solicitation process and drafted a solicitation clause that addresses Foreign National Visitor and Access requirements/expectations requiring offerors to identify individuals that may require access to DOE sites, programs, information and/or technology to perform their work, including hosting any meetings.
- o Commenced with updating standard Supply Chain forms to accept an Adobe electronic signature.
- o Discussed business approaches with the Pacific Northwest National Laboratory (PNNL) representatives on processing and accepting prompt payment discounts.
- o Developed a process to address subcontractor travel restrictions as imposed by DOE Headquarters (HQ) during the current COVID-19 pandemic.
- o Performed market research on electronic motor manufacturers that could potentially build a replacement motor for a CHPRC crane that is obsolete. Eight potential manufacturers were identified.
- o Collaborated with MSA and WRPS regarding the evolution of Inter-Contractor Work Orders and needed process enhancements to support the transition to Hanford Mission Integration Solutions (HMIS). Updated the purchasing review process to incorporate enhanced suspect/counterfeit items language that addresses piping components such as valves and valve replacement products, couplings, plugs, spacers, nozzles and pipe supports.
- o Extended Coronavirus Aid, Relief, and Economic Security Act (CARES) Act coverage subcontracts through September 30, 2020, and notified subcontractors about the availability of on-going CARES Act coverage.
- o Completed license transfer agreement for auditing software that will now be managed by MSA/HMIS and offered through Software Distribution.
- o Held discussions with representatives from PNNL regarding a proposed change in the method of acquiring PNNL services, placing work performed for non-integrated prime contractors in the same category as research performed for other non-DOE entities (i.e., academia, private industry, local and state governments, other government agencies), and requires a specific contractual agreement to be used.

- **Procurement:**

- o During the FY2020 fourth quarter (Q4), awarded/amended 571 contracts with a total value of \$28.9 million. Additionally, awarded 487 new material purchase orders (PO) valued at \$1.2 million to support ongoing project objectives.
- o At the end of 144 months of the CHPRC project, procurement volume has been significant: \$3.1 billion in contract activity has been recorded with approximately 57 percent, or \$1.779 billion, in awards to small businesses. These awards include 9,078 contract releases, 31,741 POs and 352,981 PCard transactions.
- o Major contract awards/modifications:

Contract/Release	Award Date	Awarded To	Title	Contract Type	Value (\$M)
73615	7/1/20	Atlas Electric, Inc.	Portable 500KVA 3-PHASE Electrical Substation Design/Build (WARP)	FFP	\$ .39
48767-12	7/20/20	Cascade Drilling LP	Installation Of Three M-24 Monitoring Wells, FY20	FFU	\$ .43
73907-1	7/30/20	Ojeda	BMA 73907 Install Trailers at MO294/200E (COVID)	FFU	\$ .28
61180-6	9/16/20	NAC International, Inc.	Master Contract Mod 17 – Change Order 2, 3, and 4	FFP	\$ .63
71350-1	9/22/20	Delhur Industries, Inc.	Incorporate CO 1 thru 3B – COVID-19 Equipment Standby CCR87516	FFU	\$ .47

- **Facilities & Property Management:**

- o The FY2020 Property Inventory Campaign is 100% complete. CHPRC has validated 3,750 property items assigned to the Plateau Remediation Contract (PRC) and have had no lost, damaged, or destroyed reports necessary in the FY2020 inventory campaign. All CHPRC property items have been accounted for during this campaign.
- o Coordinated temporary mobile office requirements/logistics and consumables to support project resumption activities. Two of the social distancing COVID-19 facilities have been placed on site and assembled, and are being configured internally to support the project needs and activities.
- o Coordinated office and floor plan reconfiguration; provided electronic updates.
- o Coordinated office personnel moves to ensure proper social distancing and safe office environments.
- o Worked in coordination with MSA/Electrical Utilities to schedule multiple planned electrical outage activities to ensure that system upgrades, inspections and maintenance are performed.
- o Transition Briefing Books and materials have been updated and are available for other CHPRC organizations/projects to use.
- o Distributed and maintained disinfectant materials and masks to all Federal Building workstations.
- o Worked with MSA to coordinate support services logistics for bulk water distribution and sanitary system services.
- o Coordinated with IH to establish an ergonomic chair standard for CHPRC employees and created a process that will allow CHPRC to keep standard models in stock, save on freight costs, reduce employee down time and manage stock on hand.

- **Finance:**

- o Continuing with the series of RL Finance/contracting officer meetings to discuss and align topics identified in the CHPRC Incurred Cost Audit Corrective Action Plan for FY2009-2015 and RL Finance Surveillances.

- o Completed fiscal year-end closing.
  - o Established a new banking agreement with US Bank to perform various banking services for CHPRC under a Special Financial Institution Account Agreement.
  - o Submitted the FY2021 provisional billing rate letter and received RL approval.
  - o Submitted FY2020 third quarter (Q3) international transaction report.
  - o Submitted the FY2020 Q3 reconciliation of RL's Accounts Payable – Accrued Liabilities account (#2110).
  - o Submitted the FY2019 Q1 and Q2 Invoice Assessment response.
  - o Submitted the FY2020 Current Capital and Operating Lease report.
  - o Submitted the FY2020 Deferred Maintenance, Forgone Revenue, Commitments, Lessors, and Public-Private Partnerships reports.
  - o Responded to the Field Software Capitalization data call.
  - o Continued providing support for the Contract Labor Time Recording System (CLTR) assessment conducted by RL and submitted in response to the CLTR audit.
  - o Continued providing support for the Incurred Cost Report audit for FY2018.
  - o Continued providing support for the FY2019 Q3 and Q4 Invoice Assessment.
  - o Continued providing support for the FY2020 Q1 and Q2 Invoice Assessment.
  - o Continued providing support for the FY2020 Inventory Assessment data call.
- **Information Management:**
    - o Processed 201,996 electronic records during FY2020 Q4 into the Integrated Document Management System.

#### **Prime Contract and Project Integration (PC&PI)**

- **Project Management/Compliance Assessments (PM/CA):**
  - o As CHPRC's TA for DOE Order 413.3B, PC&PI supported the PFP Closure Project on its response to RL's request to support a DOE Baseline Change Proposal (BCP) that addresses the schedule and cost impacts to the project breakdown structure RL-0011.C2, *Deactivation and Demolition Project*. The schedule and cost impacts were caused by the RL-directed partial stop work order (PSWO) due to the coronavirus (COVID-19) for non-portable work that is not an essential mission-critical activity. This included supporting project preparations for the successful DOE-HQ Independent Review of the revised estimate and schedule to complete the RL-011.C2 PFP Demolition Project reflected in the BCP performed in August.
  - o Preparations for the Project W-135, *Waste Encapsulation and Storage Facility Modifications*, DOE Order 413.3B Critical Decision (CD)-2, *Approve Performance Baseline*, and CD-3, *Approve Start of Construction/Execution*, review, which started September 28, 2020, were also supported. Efforts during the reporting period included supporting the development of a major revision to the WESF Modifications Project, Project Execution Plan required for the CD-2 and CD-3 review.
  - o Continued to lead the implementation of the PC&PI FY2020 integrated evaluation plan (IEP) and completion of open actions in the CRRS assigned to PC&PI.
  - o PC&PI completed 10 self-assessments identified in the FY2020 IEP.
  - o Continued to support Performance Measure Baseline (PMB) change control by supporting the development of baseline change requests (BCRs), providing review and input on proposed BCRs, and serving on the CHPRC Change Control Board when required.
  - o Continued CPCCo Transition Planning. This included being responsible for coordinating PC&PI-specific data and providing CHPRC crosscutting PMB planning and performance information contained in the final CHPRC Transition Briefing Book and sharing information with

- the PC&PI team regarding the upcoming transition to CPCCo, which is planned to start October 5, 2020.
- o Continued providing input to CHPRC efforts in response to COVID-19 and RL's issuance of the associated PSWO.
  - **Prime Contract Compliance (PCC):**
    - o July through September, PCC received and processed 32 contract modifications (707, 709-714, 716-720, 723, 729-734, 736, 739, 743, 745-749 and 752-756) from RL.
    - o The Correspondence Review Team received and determined the distribution and assignment for 204 incoming letters/documents. PCC reviewed 152 outgoing correspondence packages.
  - **Project Integration:**
    - o Project Support and Systems Integration (PS&SI) and Schedule Integration  
PS&SI and Schedule Integration completed three WSAs:
      - PC&PI-220-WSA-24223, *Evaluate Coding of Child Activities During the ETC/Forecasting process against monthly ETC Update Desktop*
      - PC&PI-2020-WSA-24224, *CAM Notebook Quality*
      - PC&PI-2020-WSA-24225, *Indirect VAR Quality by Element of Cost*
    - Prepared and hosted monthly CHPRC Financial Briefing with CHPRC Project Control and Finance and RL Budget and Finance organizations. Provided a handout of meeting materials.
    - In accordance with PRC Deliverable C.3.1.2.2-2, "Measurement Baseline Annual Updates," successfully lead the completion and submittal of CHPRC's proposed FY2021 annual PMB update to RL for review and comment on July 27, 2020.
    - On September 29, 2020, CHPRC received approval of FY2021 post-contract performance baseline and work authorization from RL. Successfully coordinated the issuance of required CHPRC internal work authorizations (i.e., Project Direction Notices, Work Authorization Documents and Work Charging Authorizations) for FY2021 direct- and indirect-funded activities in time to support accurate cost reporting by the October 1, 2020, start of FY2021.
    - o 000 Project Earned Value Management Support and Reporting
      - Issued three months of CHPRC Monthly Performance Reports to RL.
      - Submitted the June, July, and August Gold Metrics to RL.
      - Completed safety hour reporting each month.
      - Compiled integrated project team packages for June, July and August and Monthly Project review packages for July.
  - **Project Support Services:**
    - o Risk Management:
      - Conducted Q4 Risk Register reviews and updates.
      - Supported PFP Environmental Impact Report (EIR) by completing project-specific risk analysis and participating in meetings with the DOE EIR team.
      - Continue to support Project W-135, WESF Modifications and DOE Order 413.3B submittal of CD-2 and CD-3 to DOE, including the risk analysis. The EIR is scheduled for October.
      - Conducted monthly assessments of the status of key project risks and risk impacts associated with BCRs.
    - o Estimating and Program Support:
      - Reviewed 12 BCRs prior to implementation into the FY2020 PMB annual update during July, August and September.
      - Provided estimating review and concurrence on the cost estimates for two FY2020 Plant Force Work Reviews.

- Provided estimating support to develop three FY2021 100K East PMB estimates and one estimate for the 000s electrical PMs for the 2640E Building.
- Provided estimating support to develop the pre-transition and transition estimates.
- Created one Fair Cost estimate.
- Completed a review of 421 FY2021 PMB annual update basis of estimate documents.
- Completed estimating review of 1,267 FY2021 PMB supporting documents.
- Completed Work Site Assessment for Basis of Estimate and Estimate supporting documentation consistency.

### Resource Management and Strategic Integration

- o All contractual actions completed on or ahead of schedule.
- **Human Resources:**
  - o COVID-19 Response, planning and resumption.
  - o Maintained a mobile-ready workforce to support ongoing government work.
- **Staffing and Development:**
  - o Developed and implemented of Pilot Key (High Potential) Talent Development program in order to retain top talent.
  - o Implemented a relationship with Circa (formerly Local Jobs Network), an Office of Federal Contract Compliance Program and Equal Employment Opportunity (EEO)-compliant job aggregation partner to advertise jobs to diverse pools of talent across the U.S. to attract diverse pools of candidates to the Hanford Site.
  - o Focused on increased veteran-recruiting activities in support of DOE initiatives, including participating in the Fleet & Family Support Center virtual career fair.
  - o Created targeted recruitment plans to increase college/university recruitment efforts to include schools offering programs for hard-to-fill positions, such as fire protection engineers, safety engineers, health physicists, and nuclear engineering.
  - o Participated in compensation market salary surveys in support of competitive pay and retention.
  - o Compensation and EEO-compliance matrices developed and gap analyses completed to ensure compliance with federal, state and local laws, reducing risk to CHPRC and DOE.
- **Labor Relations (LR):**
  - o The following is a list of grievances in the arbitration process and the status:
    - LR worked with the union to close one arbitration.
      - PRC-019-020 – Discipline
    - Scheduled arbitrations
      - PRC-017-042 – Closure of the Plastic Shop (Oct. 7, 2020)
      - PRC-018-021 – Fixative Application (March 24, 2021)
      - PRC-019-003 – Discipline (Dec. 2, 2020)
      - PRC-019-004 – Discipline (Jan. 14, 2021)
      - PRC-019-029 – Skipped Overtime (Feb. 11, 2021)
    - The following grievances have been requested by Hanford Atomic Metal Trades Council to move to arbitration but pending arbitration dates:
      - PRC-020-003 – Skipped Overtime
      - PRC-020-011 – Discipline
      - PRC-020-012 - Discipline
      - PRC-020-014 – Skipped Overtime

- PRC-020-015 – Skipped Overtime
  
- **Interface Management:**
  - o Transmitted the preliminary and final FY2021 Usage Based Services Forecast data to MSA.
  - o Implemented new administrative interface agreement PRC-AIA-MSA-02868, Revision 0, between CHPRC and MSA for use of Fuels and Materials Examination Facility Building and Grounds for Hanford Patrol Training.
  - o Supported implementation of new administrative interface agreement HNF-64707, Revision 0, between each of the prime contractors in support of the Hanford Site Tours program.
  - o Provided annual response to the 222-S Lab regarding continued achievement of a physical sample inventory.
  - o Completed WSA RM&SI-2020-WSA-26345, Revision 1, on use of MSA Inter-Contractor Work Order Contracts.
  - o Provided FY2021-2022 service/volume forecast of effluents to either Treated Effluent Disposal Facility or Effluent Treatment Facility to WRPS.
  - o Issued Administrative Interface Agreement HNF-51041, Revision 2, *Fire Protection Flow-Down of Roles, Responsibilities, Authorities, and Enforcement*, between CHPRC and MSA.
  
- **Strategic Management:**
  - o Continued implementation of the CHPRC Work Resumption Plan, including identifying scope and personnel for return to work such that all non-portable workers were on site prior to FY end.
  - o Maintained PPE inventory/usage tracking, as well as projections tied to upcoming scope authorizations and potential scope shifts between phases.
  - o Provided tools for improved visibility of resource management and project/cost forecasting.
    - Developed the Headcount Evaluation Spreadsheet for improved visibility, management and allocation of human resources.
  - o FY2021 baseline planning activities:
    - Maintained Integrated Priority List targets and evaluated against FY2021 planning updates, including the impact of additional carryover scope and pricing increases.
    - Evaluated the impacts of direct funding of MSA COVID-19-related costs and identified scope impacts for RL senior management decision making
  - o Developed draft update of the Hanford Project Evaluation Matrix, including subject matter expert input. Finalization anticipated in October 2020 after CHPRC and RL senior management review and approval.
  - o Completed a management assessment of productivity measurement for all applicable field projects.

### **Project Technical Services (PTS):**

- **Training and Procedures**
  - o Scheduled training for subcontractor employees associated with PTS construction project work resumptions at W-135, Maintenance and Storage Facility, REDOX, 100K and IDF projects. These projects resumed following the COVID-19 work stoppage in March and required expedited enrollments for lapsed qualification training.
  - o Completed a video tutorial for all CHPRC employees as a brief orientation to the new Learning Management System (LMS), *SuccessFactors*. The video was posted on the Training webpage and a featured link in an all-employee communication.
  - o Conducted an online training session for Responsible Manager-Issues Management on July 23, 2020, and a live session of Responsible Manager, Work Management at HAMMER on July 30, 2020.

- o Set sessions for Course Number 604240, *Field Work Supervisor*.
  - o Assisted MSA with the implementation of the LMS, *SuccessFactors*.
  - o Created and released a new revision of the Course Number 6C1900, *Authorities for COVID-19 Guidance and Social Distancing*, and associated gap training for those who have taken the course prior to August 10, 2020.
  - o Implemented a new qualification card for Course Number 600470, *Operation of the SAM 940 Handheld Radiation Isotope Identifier*.
  - o Issued a new procedure PRC-STD-TQ-54470, *Industrial Hygiene Training Program Description*, describing the improved IH training and qualification program. The release of this new training program description (TPD) separates the IH TPD from the Occupational Safety Training Program Description, PRC-STD-TQ-40369.
  - o Issued a change to procedure PRC-MD-HR-54502, *Temporary Alternative Work Locations*, to include direction for time recording when commuting from a temporary work location to the work site.
  - o Rescheduled all class enrollments from September 14 – 17, 2020, as a result facility closures due to poor air quality from wildfire smoke.
  - o Issued a change to PRC-PRO-WKM-14047, *Pre-Job Briefings and Post-Job Reviews*, to remove the Post-As Low as Reasonably Achievable (ALARA) Review requirement from the duties of the fieldwork supervisor via this procedure. Post-ALARA Reviews are to be conducted by the radiological work planner in accordance with PRC-PRO-RP-40109 *Radiological Work Planning*.
  - o Issued an Industrial Hygiene Program Fundamental Education Verification checklist and assigned it LMS Course Number 670180. This serves as documentation of completion for industrial hygienist and IH surveyors.
- **Operations Program**
    - o Updated GHA to include pandemic controls.
    - o Conducting work management tri-annual management assessment.
    - o Held work management training sessions for responsible managers and fieldwork supervisors.
    - o Submitted quarterly startup notification report to RL.
    - o Developed and sent communication on WRPS lockout spider failure to primary controlling organization administrators.
    - o Completed a WSA on conduct of work in support of the Integrated Evaluation Plan schedule.
    - o Developed a Cold Weather Work Package in support of PTS winterization plan.
    - o Participated in the CHPRC COVID-19 Work Group meetings.
    - o Conducted PTS COVID-19 Working Group Meeting in support of social distancing plans and controls.
    - o Supported lockout/tagout (LOTO) walk down for electrical breaker PMs for PTS facilities.
    - o Discussed and reviewed options with the Hanford Fire Department for impairment/red tagging process.
    - o Supported contract transition activities with maintenance activity forecasts/backlog reports.
    - o Worked with Engineering for technical evaluation to support modification of LOTO bag for Fire Department connections.

- **Readiness and Preparedness**
  - o Facilitated the revision and issuance of 16 hazardous facility building emergency plans and facility response plans to reflect the Class 3 modification for Ecology permit and revisions to the contingency plan.
  - o Received Triennial Assessment from RL with 10 Findings and 6 Recommendations; began an analysis and corrective action plan development.
  - o Lost one Emergency Preparedness analyst due to acceptance of a job outside of the Hanford Site.
  - o Supported the performance of 10 Emergency Preparedness drills and three Operational Drills.
  - o Supported teleworking activities to support administrative work in support of Emergency Preparedness program implementation, which included:
    - Drill report issuance.
    - Online training completion.
    - Procedure revisions.
    - Updates to Emergency Preparedness hazard analysis and hazard assessments.
    - Training course revisions.
    - Corrective action management and assessment activities.
    - Refresher activities for Facility Emergency Response personnel.
  - o Made two job offers for new Emergency Preparedness analysts, both of which were accepted; start dates are pending.
  - o Requested and received a 30 extension for the Triennial Assessment Corrective Action Plan.
- **Project Delivery**
  - o Commenced fabrication and installation of trailers at the MO294 site.
    - All five trailers mobilized, set and assembled at the site.
    - Commenced electrical distribution installation; trenching and setting underground service assembled and set racks.
- **Communications**
  - o Issued press releases to announce more than 2 billion gallons of groundwater was treated in each of the past six years, and progress at the Integrated Disposal Facility in support of Direct-Feed Low-Activity Waste.
  - o Produced 24 posts for DOE social media channels featuring progress on Aging Structures stabilization; ERDF support; REDOX ventilation system prep; IDF; WESF/Capsule Storage Area (CSA); and 100K waste sites, among other things. Produced 41 LinkedIn posts featuring project updates, community involvement, ethics awareness and recruiting.
  - o Produced seven Environmental Management Newsletter/EM Roundup stories communicating progress on the Aging Structures stabilization project (two articles), groundwater treatment, Sludge Transport and Storage Container weighing, W-135 CSA, and IDF, as well as an article on the CHPRC President's Lifesaving Award from June.
  - o Produced a fact sheet for the B Plant Engineering evaluation/cost analysis Comment period to support public involvement efforts.
  - o Provided content for DOE's update for the Hanford Advisory Board virtual full board meeting in October.
  - o Supported DOE's Hanford Office of Communication on internal and external relations related to the Aging Structures stabilization project.
  - o Produced videos capturing progress at IDF, CSA, ERDF and groundwater treatment.
  - o Developed Winter Safety campaign communication products.
  - o Executed a virtual fundraiser for the Tri-Cities Union Gospel Mission, raising \$10,000.

- o Supported the U.S. Secretary of Energy Rick Perry's Hanford Site visit on August 13, 2020.
- o Developed content for two proactive all-company safety stand downs to stress the importance of focusing on work during times of distraction (contract transition).

## MAJOR ISSUES

In accordance with performance measure PM-00-1-18, CHPRC reports the below issue could potentially impact the completion of individual outcomes and the overall success of the contract, as well as actions taken or recommended to resolve those issues.

Issue	Recommendation
No business system issues currently identified. Please see the Overview for contract alignment issue status.	N/A

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

WBS 000 Project Services and Support	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
<b>Office of the President</b>	0.2	0.2	(1.2)	0.0	22.2%	1.4	578.0%
<b>Engineering</b>	0.2	0.2	0.1	0.0	0.0%	0.1	46.8%
<b>Internal Audit</b>	0.1	0.1	0.0	0.0	0.0%	0.1	78.0%
<b>General Counsel</b>	0.1	0.1	0.1	0.0	0.0%	(0.0)	-7.4%
<b>Communications &amp; Outreach</b>	0.1	0.1	0.1	0.0	0.0%	0.1	59.5%
<b>Safety Health Security &amp; Quality</b>	1.7	1.7	1.0	0.0	0.0%	0.7	41.1%
<b>Envr Program &amp; Strategic Planning</b>	0.5	0.5	0.2	0.0	0.0%	0.3	56.8%
<b>Business Services</b>	3.7	3.7	0.8	0.0	0.0%	2.9	78.9%
<b>Prime Contract &amp; Project Integration</b>	1.0	1.0	(3.3)	0.0	0.0%	4.3	438.3%
<b>Resource Mgmt &amp; Strategic Intg</b>	0.9	0.9	0.4	0.0	0.0%	0.5	60.5%
<b>Project Technical Services</b>	0.9	0.9	0.2	0.0	0.0%	0.7	79.7%
<b>Indirect WBS 000 Total</b>	<b>9.5</b>	<b>9.5</b>	<b>(1.6)</b>	<b>0.0</b>	<b>0.5%</b>	<b>11.2</b>	<b>117.0%</b>
Numbers are rounded to the nearest \$0.1 million							

### Indirect WBS 000

#### CM Schedule Performance: (+\$0.0M/+0.5%)

The variance is within reporting thresholds.

#### CM Cost Performance: (+\$11.2M/+117.0%)

This positive cost variance is primarily due to incurred COVID costs being moved to the related PBS for transparency and impact. These costs were treated as direct and were moved to established unique PBS CACNs based on the percentage of total direct base cost for each PBS. Additionally, an over-liquidation of the labor adder pool resulted in a September passback coming from a combination of three pools: the absence (ABS) pool, the continuity of service (COS) pool, and the continuity of pension (COP) pool. All

pools over-liquidated in FY2020. The COS and COP pool over-liquidations occurred due to lower than expected pool costs (e.g., Hanford Employee Welfare Trust [COS and COP] and workers compensation [COS]). The ABS pool over-liquidation is primarily due to lower-than-expected non-personal time bank absences (e.g., R time, EA time, jury duty) than planned based on prior year actuals. These distributions impacted every account that had labor cost.

## Fiscal Year-to-Date (FYTD) (\$M)

WBS 000 Project Services and Support	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
<b>Office of the President</b>	2.2	2.2	2.3	0.0	0.0%	(0.1)	-4.0%	2.2
<b>Engineering</b>	1.5	1.5	1.4	0.0	0.0%	0.1	4.3%	1.5
<b>Internal Audit</b>	1.0	1.0	0.7	0.0	0.0%	0.3	31.1%	1.0
<b>General Counsel</b>	1.2	1.2	1.6	0.0	0.0%	(0.4)	-32.5%	1.2
<b>Communications &amp; Outreach</b>	1.2	1.2	0.9	0.0	0.0%	0.3	27.1%	1.2
<b>Safety Health Security &amp; Quality</b>	14.9	14.9	14.3	0.0	0.0%	0.7	4.4%	14.9
<b>Envr Program &amp; Strategic Planning</b>	4.8	4.8	3.7	0.0	0.0%	1.1	23.7%	4.8
<b>Business Services</b>	33.2	33.2	29.2	0.0	0.0%	4.0	12.0%	33.2
<b>Prime Contract &amp; Project Integration</b>	8.4	8.4	6.8	0.0	0.0%	1.6	19.0%	8.4
<b>Resource Mgmt &amp; Strategic Intg</b>	7.1	7.1	6.0	0.0	0.0%	1.2	16.5%	7.1
<b>Project Technical Services</b>	8.1	8.1	6.2	0.0	0.0%	1.9	23.6%	8.1
<b>Indirect WBS 000 Total</b>	<b>83.7</b>	<b>83.7</b>	<b>73.0</b>	<b>0.0</b>	<b>0.0%</b>	<b>10.7</b>	<b>12.8%</b>	<b>83.7</b>

Numbers are rounded to the nearest \$0.1 million

### Indirect WBS 000

#### **FYTD Schedule Performance: (+\$0.0M/+0.0%)**

The variance is within reporting thresholds.

#### **FYTD Cost Performance: (+10.7M/+12.8%)**

The variance is within reporting thresholds.



# Appendix C

## Capital Asset Project

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

*a Jacobs company*



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

September 2020  
CHPRC-2020-09, 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

September 2020  
CHPRC-2020-09, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

In September, 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). All PFP personnel returned to the Hanford Site in September. Essential mission-critical operations consisted of a survey of PFP radiological boundaries, re-applying soil fixative to the PFP demolition site, and performing equipment maintenance.

<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 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 has maintained that configuration. Essential mission-critical operations in September consisted of the 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 and performing equipment maintenance.
- Crews continued work on the disposition of legacy waste.
- The Office of Project Management (PM) completed a combined Independent Cost Review (ICR) and External Independent Review (EIR) in support of the RL-0011.C2, *PFP Demolition Project Baseline Change Proposal (BCP)*, for the project. Based on the overall results of the ICR and EIR, PM concurred with the project and validated the project's revised performance baseline. The ICR/EIR team concludes that the project is sufficiently prepared for the resumption of work when adequate personal protective equipment (PPE) is available and site conditions allow.

## MAJOR ISSUES

None currently identified.

## RISK MANAGEMENT STATUS

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

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

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

	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> Risk PFP-P5-007, <i>Delay of Plutonium Reclamation Facility (PRF) Debris Load Out</i> , was moved from the realized risk section to the key risk section of the stoplight chart.																			
<b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)																			
No realized risks identified in <b>September</b> .																			
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)																			
No critical risks identified in <b>September</b> .																			
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)																			
No high threat risks identified in <b>September</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	<span style="color: green; font-size: 20px;">●</span>	<span style="color: black; font-size: 20px;">↔</span>	<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: 5px;"> <thead> <tr> <th style="width: 80%;">Mitigation Action(s)</th> <th style="width: 10%;">FC Date</th> <th style="width: 10%;">%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <b>Mitigation Assessment:</b> No major changes in <b>September</b> . No weather events impacted the project in <b>September</b> .	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	<span style="color: green; font-size: 20px;">●</span>	<span style="color: black; font-size: 20px;">↔</span>	<b>Risk Trigger:</b> During PFP demolition activities, an increase in stop works could result in delays.  <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 5px;"> <thead> <tr> <th style="width: 80%;">Mitigation Action(s)</th> <th style="width: 10%;">FC Date</th> <th style="width: 10%;">%</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 <b>September</b> . 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																	

Unmitigated Risk Impacts	Assessment		Comments									
	Month	Trend										
<b>RL-0011/C.2</b>												
FP-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	● ↔	<p><b>Risk Trigger:</b> The project experiences delays to PRF debris load out, impacting project completion.</p> <table border="1"> <thead> <tr> <th>Risk Recovery Action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Communicate PRF loadout options with RL.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Encourage additional worker involvement.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> This risk was moved from the “Realized Risk” section to the “Key Risk” section of the stoplight chart. With the approved re-baseline of the PFP CAP 2 project, PRF debris loadout is no longer considered to be behind schedule. However, the risk remains a key risk for project completion.</p>	Risk Recovery Action(s)	FC Date	%	Communicate PRF loadout options with RL.	Ongoing	N/A	Encourage additional worker involvement.	Ongoing	N/A
Risk Recovery Action(s)	FC Date	%										
Communicate PRF loadout options with RL.	Ongoing	N/A										
Encourage additional worker involvement.	Ongoing	N/A										
<b>Unassigned Risks</b> (Pending ownership of identified threats/opportunities)												
No unassigned risks identified in <b>September</b> .												

### CRITICAL PATH ANALYSIS

The PFP critical path schedule begins with the completion of PRF loadout, which is forecast to occur by March 9, 2021, 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 June 24, 2021. The activities were pushed due to the phased resumption of work from the PSWO, as well as PPE limitations.

### 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	6/24/2021	Work resumption is expected in November 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

September 2020  
CHPRC-2020-09, 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 / 08 / 24										
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE			b. TO (YYYYMMDD)  2020 / 09 / 30										
		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 137,205	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 13,781	d. TARGET PROFIT/FEE 5,000	e. TARGET PRICE 142,205	f. ESTIMATED PRICE 200,354	g. CONTRACT CEILING 142,205	h. ESTIMATED CONTRACT CEILING 200,354	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		189,051			c. SIGNATURE			d. DATE SIGNED (YYYYMMDD)									
b. WORST CASE		195,354															
c. MOST LIKELY		195,354	150,986	-44,368													
<b>8. PERFORMANCE DATA</b>																	
CAPN.PBS Control Account.PARS 2 WBS (2)  ITEM (1)		CURRENT PERIOD				CUMULATIVE TO DATE				REPROGRAMMING ADJUSTMENTS			AT COMPLETION				
		BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)
		WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)						
RL-0011 Nuclear Mat Stab & Disp PFP																	
RL_0011_C2.05 Disposition PFP Facility		-9,281	1,996	-965	11,277	2,962	129,424	127,427	170,553	-1,997	-43,126	0	0	0	144,683	189,051	-44,368
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		-9,281	1,996	-965	11,277	2,962	129,424	127,427	170,553	-1,997	-43,126	0	0	0	144,683	189,051	-44,368
f. MANAGEMENT RESERVE															6,302		
g. TOTAL		-9,281	1,996	-965	11,277	2,962	129,424	127,427	170,553	-1,997	-43,126	0	0	0	150,986		
<b>9. RECONCILIATION TO CONTRACT BUDGET BASELINE</b>																	
a. VARIANCE ADJUSTMENT																	
b. TOTAL CONTRACT VARIANCE												-1,997	-43,126		150,986	189,051	-38,065

**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 / 08 / 24	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD)  2020 / 09 / 30	
		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	-9,281	1,996	-965	11,277	2,962	129,424	127,427	170,553	-1,997	-43,126	0	0	0	144,683	189,051	-44,368	
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)	-9,281	1,996	-965	11,277	2,962	129,424	127,427	170,553	-1,997	-43,126	0	0	0	144,683	189,051	-44,368	
f. MANAGEMENT RESERVE														6,302			
g. TOTAL	-9,281	1,996	-965	11,277	2,962	129,424	127,427	170,553	-1,997	-43,126	0	0	0	150,986			

CLASSIFICATION (When Filled In)

CONTRACT PERFORMANCE REPORT										DOLLARS IN THOUSANDS								Form Approved OMB No. 0704-0188		
FORMAT 3 - BASELINE																				
1. CONTRACTOR CH2M HILL Plateau Remediation Company b. LOCATION: Richland, WA			2. CONTRACT a. NAME: Plateau Remediation Contract b. NUMBER: RL14788 c. TYPE: CPAF d. SHARE RATIO:				3. PROGRAM RL_0011_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: 2020/08/24 b. TO: 2020/09/30									
5. CONTRACT DATA																				
a. ORIGINAL NEGOTIATED COST 51,683			b. NEGOTIATED CONTRACT CHANGE \$85,522		c. CURRENT NEGOTIATED COST (A + B) \$137,205		d. ESTIMATED COST AUTH UNPRICED WORK \$13,781		e. CONTRACT BUDGET BASE (C + D) \$150,986		f. TOTAL ALLOCATED BUDGET \$150,986		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										BUDGETED COST FOR WORK SCHEDULED (NON - CUMULATIVE)										
ITEM (1)	BCWS CUM TO DATE (2)	BCWS FOR REPORT PERIOD (3)	SIX MONTH FORECAST																UNDISTRIB BUDGET (19)	TOTAL BUDGET (20)
			+1 Oct-20 (4)	+2 Nov-20 (5)	+3 Dec-20 (6)	+4 Jan-21 (7)	+5 Feb-21 (8)	+6 Mar-21 (9)	FY09-13 (10)	FY14 (11)	FY15 (12)	FY16 (13)	FY17 (14)	FY18 (15)	FY19 (16)	FY20 (17)	FY21 (18)			
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	0	138,704	
b. BASELINE CHANGES AUTH DURING REPORT PERIOD																				
BCR-011C-20-002R1 - PFP CAP 2 Project Completion Update R1																(9,281)	15,260	0	5,979	
BCR-011C-20-004R0 - Move Balance of MR from FY2020 to FY2021 - PFP C2																0	0	0	0	
c. PM BASELINE (END OF PERIOD)	129,424	-9,281	3,605	4,305	3,008	2,130	2,107	97	0	0	6,090	29,182	19,407	628	66,598	7,519	15,260	0	144,683	
7. MANAGEMENT RESERVE																			6,302	
8. TOTAL																			150,986	

**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 / 08 / 24	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD)  2020 / 09 / 30	
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)						ENTER SPECIFIED PERIODS					AT COMPLETION (15)
			SIX MONTH FORECAST BY MONTH (Enter names of months)											
			+1 OCT 2020 (4)	+2 NOV 2020 (5)	+3 DEC 2020 (6)	+4 JAN 2021 (7)	+5 FEB 2021 (8)	+6 MAR 2021 (9)	APR 2021 (10)	MAY 2021 (11)	JUN 2021 (12)	JUL 2021 (13)	TCOMPLET (14)	
3B - PFP Closure Project	-5	4,986	2	2	125	144	153	123	73	56	1	0	-	5,666
<b>g. TOTAL DIRECT</b>	<b>-5</b>	<b>4,986</b>	<b>2</b>	<b>2</b>	<b>125</b>	<b>144</b>	<b>153</b>	<b>123</b>	<b>73</b>	<b>56</b>	<b>1</b>	<b>0</b>	<b>-</b>	<b>5,666</b>

CLASSIFICATION (When Filled In)										
CONTRACT PERFORMANCE REPORT								FORM APPROVED		
FORMAT 5 - Explanations and Problem Analysis								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) 2020/08/24		
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE				b. TO (YYYYMMDD) 2020/09/30		
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE No X Yes (YYYYMMDD) 2009 / 09 / 18						
<b>Direct Projects</b>										
<b>5. Evaluation</b>		<b>Budget</b>	<b>Earned</b>	<b>Actuals</b>	<b>SV in \$</b>	<b>SV in %</b>	<b>CV in \$</b>	<b>CV in %</b>	<b>SPI</b>	<b>CPI</b>
Current:		-9,280.8	1,996.5	-965.4	11,277.3	0	2,961.9	148.4%	0	0
Cumulative:		129,423.6	127,427.0	170,552.5	-1,996.6	-1.5%	-43,125.5	-33.8%	0.98	0.75
		<b>BAC</b>	<b>EAC</b>	<b>VAC in \$</b>	<b>VAC in %</b>	<b>TCPI to BAC</b>	<b>TCPI to EAC</b>			
At Complete:		144,683.3	189,051.1	-44,367.8	-30.7%	0	0.93			
<b>Explanation of Variance/Description of Problem:</b>										
<p><b>Current Month Schedule Variance:</b> The current month positive schedule variance is due to the negative BCWS acquired as a result of BCR-011C-20-002R1 that implemented a revised scope, cost and schedule baseline for the completion of the RL0011.C2 project. The BCR set the remaining historical BCWS equal to BCWP as of June 22, 2020.</p> <p><b>Cost Variance:</b> The current month positive cost variance is due to an over liquidation of the labor adder pool. The September passback is a combination of three pools: the absence (ABS) pool, the continuity of service (COS) pool, and the continuity of pension (COP) pool. All pools over liquidated in FY2020. The COS and COP pool over liquidations occurred due to lower than expected pool costs (Hanford Employee Welfare Trust [COS and COP] and workers compensation [COS]). The ABS pool over liquidation is primarily due to lower than expected non-personal time bank absences (R time, EA time, jury duty, etc.) , based on prior year actuals. These distributions effected every account that had labor cost. Additionally, a general and administrative (G&amp;A) rate over liquidation was also distributed in September. The G&amp;A over liquidation was due to lower pool costs resulting from the transfer of indirect COVID-19 costs to direct accounts and the positive labor variance distributions.</p> <p><b>Cumulative to Date Schedule Variance:</b> The cumulative to date schedule variance is within thresholds.</p> <p><b>Cost Variance:</b> 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, Labouny Shear, additional fixative, etc.) are also contributing to this variance. An adjustment to the General &amp; Administrative (G&amp;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.</p> <p>This is partially offset by recognized efficiencies associated with the removal of the 18 sections of the PRF gallery gloveboxes, progress on demolition of 236-Z, demolition of the 2727-Z and 2729-Z facilities, the 242-ZA and 242-Z facilities, the 291-Z facility, 291-Z stack, 234-5ZA, 252-Z1, 2503-Z, 2735Z, 2734ZA, ZB, ZC, ZD, and ZL facilities.</p>										
<b>Impact:</b>										
<p><b>Schedule Impact:</b> Completion of all demolition activities followed by site stabilization and demobilization, turnover to surveillance and maintenance, and project closeout activities forecast to occur in June 2021. The TPA Milestone TPA-083-00A, complete PFP facility transition and selected disposition activities of November 30, 2017, was not met.</p> <p><b>Cost Impact:</b> A negative VAC is reflective of impacts associated with recovery efforts from a contamination event that occurred on December 15, 2017.</p>										
<b>Corrective Action:</b>										
Demolition and load out activities are expected to resume in January 2021 when personal protective equipment is expected to be available. The current slab on grade date is March 9, 2021.										
<b>Monthly Summary (to include technical causes of VARs, Impacts) and Corrective Action(s):</b>										
<p>There was no change in the difference between the Contract Budget Base and the Total Allocated Budget on Format 3 for the month of September.</p> <p>The following items are addressed, as applicable:</p> <ol style="list-style-type: none"> <li>Schedule Margin Analysis: BCR-011C-20-002R1 implemented a revised scope, cost and schedule baseline for the completion of the RL 0011.C2 project, as well as implemented a revised schedule margin as determined by risk analysis.</li> <li>Data dictionary Changes: BCR-011C-20-002R1 implemented a revised scope, cost and schedule baseline for the completion of the RL 0011.C2 project.</li> <li>Forecast Schedule with No Baseline: BCR-011C-20-002R1 implemented a revised scope, cost and schedule baseline for the completion of the RL 0011.C2 project.</li> <li>UB Balance: No change in the month of September.</li> <li>Negative Actual Cost of Work Performed (ACWP): September negative ACWP is due to year-end variance distributions of the labor adder and G&amp;A pools. The pool over-liquidations resulted in a credit passback to the projects.</li> <li>Earned Actual Cost (EAC) Analysis: Best Case = \$189,051; Most Likely = \$195,354; Worst Case = \$195,354. 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.</li> <li>Negative CV &gt; VAC: No change in the month of September.</li> <li>Management Reserve Transactions: Transfer \$5,729.K of MR from RL-0041, for a new total of \$6,302.4K of MR</li> <li>Freeze Period Changes: BCR-011C-20-002R1 implemented a revised scope, cost and schedule baseline for the completion of the RL 0011.C2 project.</li> <li>Retroactive Changes: No change in the month of September.</li> <li>Earned Value Type Changes: BCR-011C-20-002R1 implemented a revised scope, cost and schedule baseline for the completion of the RL 0011.C2 project.</li> </ol>										
<b>Prepared by:</b> Kerri Scott		<b>Date:</b> 10/15/2020		<b>Approved by:</b>				<b>Date:</b>		