

# Monthly Performance Report

**April 2017**

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



**P.O. Box 1600  
Richland, Washington 99352**

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**APPROVED**  
*By Janis Aardal at 2:21 pm, May 25, 2017*

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Release Approval

Date

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L. Ty Blackford  
President and Chief  
Executive Officer

# Monthly Performance Report

U.S. Department of Energy Contract,  
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April 2017  
CHPRC-2017-04, Revision 0

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## EXECUTIVE SUMMARY

CH2M HILL Plateau Remediation Company (CHPRC) advanced cleanup throughout the Hanford site during the month of April. Major accomplishments included:

- At the Plutonium Finishing Plant (PFP), workers cleaned up (decontaminated) the demolition zone following the completion of work demolishing the Americium Recovery Facility (the McCluskey Room). Demolition resumed on the Plutonium Reclamation Facility (PRF), and glove box 18M was removed and packaged for shipment to the Central Waste Complex.
- At the Waste Encapsulation and Storage Facility (WESF), crews grouted the last of the hot cells, completing the contamination stabilization effort. The cask storage system subcontractor provided an update on the conceptual design progress of the cask storage system.
- At the Soil and Groundwater Remediation Project, workers completed repair work on a fluidized bed reactor (FBR) A at the 200 West Pump and Treat.
- K Basins Operations and Remediation Project crews started K Basin Preoperational Acceptance Testing, signaling a major transition for the project that moves it a step closer to removing sludge.
- Workers at the 324 Building Remediation Project entered the airlock for the first time in approximately 15 years to perform initial dose measurements.
- Crews at the 618-10 Burial Ground completed more than 80 percent of the steel vertical pipe unit remediation – 47 of 56 segments are complete.

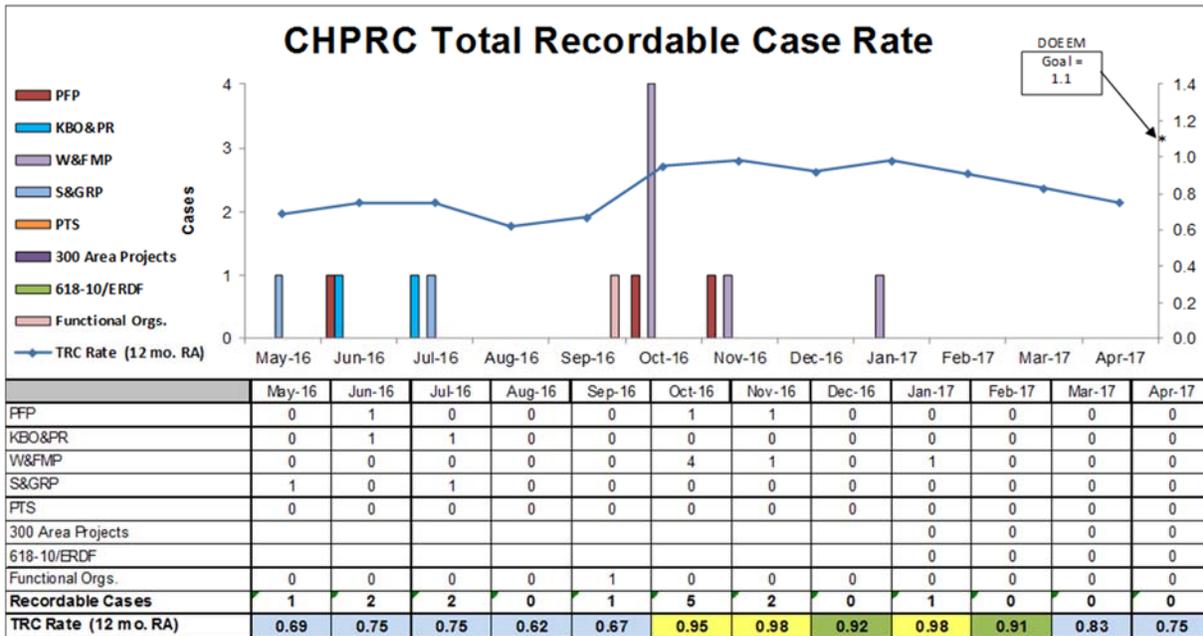


*18M glove box being removed from 234-5Z.*

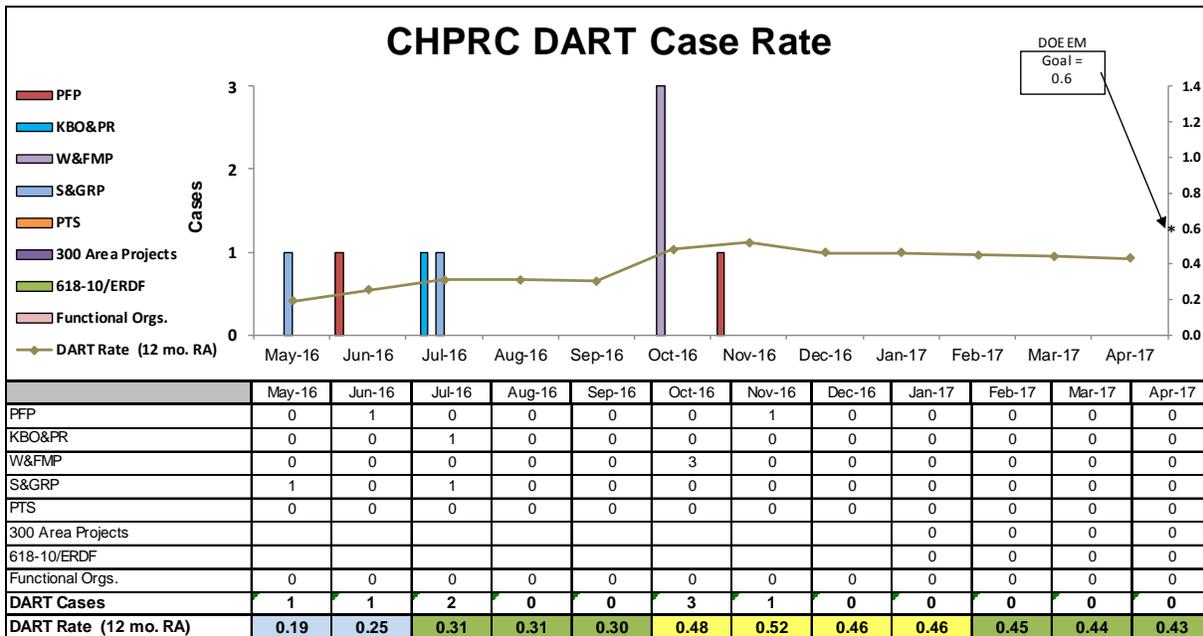
- In lieu of the April President's Zero Accident Council (PZAC) meeting, workers were encouraged to attend Safety Connect 2017, held April 18-19, 2017.
- Four "Thinking Target Zero" (TTZ) bulletins were published to convey important occupational, safety, health, and environmental messages:
  - o Voluntary Protection Program (VPP) – Safety Connect 2017.
  - o Distracted Driving Awareness.
  - o Environmental Management System (EMS) – Celebrate Earth Month.
  - o Vehicle Incident.
- *Weekly Safety Tailgate* briefing packages communicated relevant topics and safety information to the workforce:
  - o Four Lessons Learned: Servicing forklift results in worker injury; Mine Safety and Health Administration (MSHA) – Close Call Alert; Portsmouth Mission Alliance, LLC – SCI Components Identified in Ratchet Tie-down Assemblies; Operator fractured cheekbone performing routine operational check.
  - o Weekly ethics moments.
  - o Vehicle incidents.
  - o Footwear reminder.
  - o Reporting injuries.
  - o Hard hat recycling.
  - o Bird nesting season.
  - o Appropriate use of resources.
  - o Earth Day events.
  - o Herbicide/pesticide spray schedule.
  - o Updated bomb threat card.
- The *Kudos Corner* recognized individuals and teams who made a significant contribution to safety at work, home, or play:
  - o Kudos to the employees from various projects and organizations for the successful first test cuts with the remote floor saw system at the Maintenance and Storage Facility. Testing a saw in this environment will help ensure it works as designed when it is used to cut through the floor of the 324 Building's B Cell to access the radioactive soil beneath the floor.
  - o Kudos to the PFP team for the safe completion of demolition on the McCluskey Room.
  - o Kudos to the S&GRP worker who discovered power lines laying across the roadway on site. The de-energized lines were part of a work activity, but the worker recognized a traffic hazard, stayed to barricade the road, and contacted electric utilities to get the lines removed.
  - o Kudos to several craft workers who participated in the After School Matters program at Eastgate Elementary School by providing one-on-one academic mentorship opportunities for students.

## TARGET ZERO PERFORMANCE

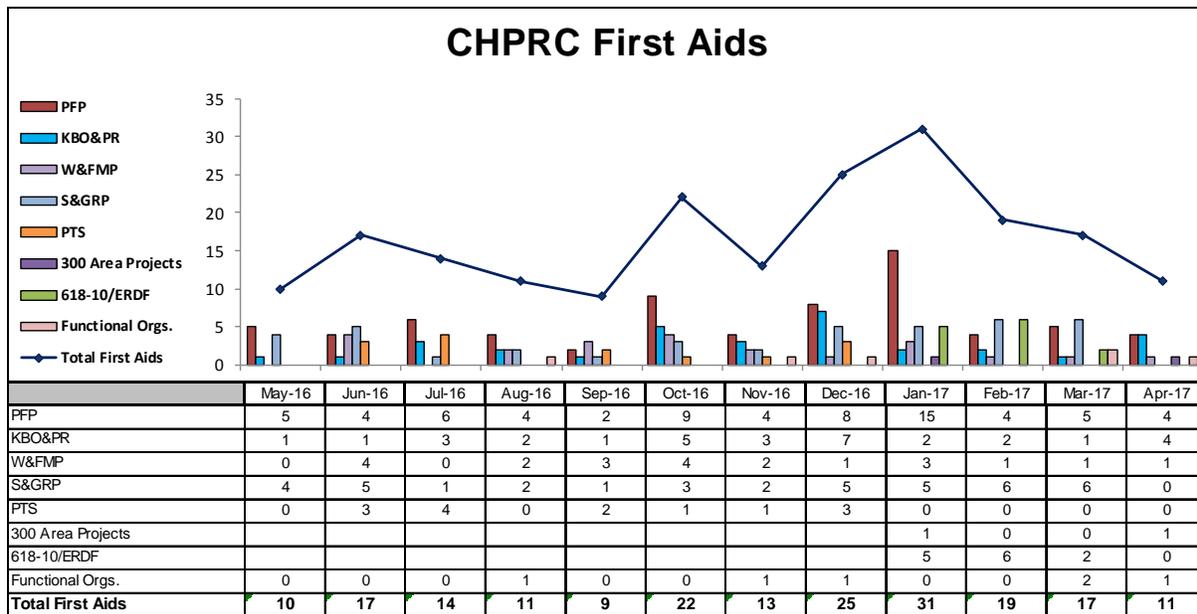
CHPRC continued focusing on integrating and implementing safety programs in all program and project areas.



Total Recordable Injury Case (TRC) Rate: The 12-month rolling average TRC rate of 0.75 is based on a total of 14 recordable injuries. There were no recordable cases for April. Over one million hours worked since last recordable injury.



Days Away, Restricted or Transferred (DART) Workdays Case Rate: The 12-month rolling average DART rate of 0.43 is based upon a total of eight Days Away cases. There were no DART cases in April. Over 1.5 million hours worked since last DART.



First Aid Case Summary: CHPRC reported 11 First Aid cases in April. The contributors were five sprains/strains/pains, two abrasions/bruises/contusions, two misc. (burns, rashes, repetitive motion, etc.), one insect bite and one foreign bodies/irritation in the eye injury.

## KEY ACCOMPLISHMENTS

### Projects

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

### Project Services and Support (PTS)

- Refer to the Appendix B section of this report for specific overhead support and Sections A through G, as well as Appendix C of this report for specific project support.

## MAJOR ISSUES

### Issue:

Unusually severe weather has caused negative schedule impacts to programmatic and performance measure due dates and increased costs.

### Corrective Action:

- Evaluate potential workarounds to mitigate impacts.
- Submit notice to DOE Richland Operations Office (RL) for excusable delays related to unusually severe weather conditions.
- Assess current and future impacts of these disruptions to schedule and cost, and submit Request for Equitable Adjustment (REA) to RL.

### Status:

- Continued unusually severe weather has limited ability to recover delays.
- Submitted REA to RL on January 24, 2017 (CHPRC-1700206 – *Request for Excusable Delay Due to Unusually Severe Weather*).

- Submitted request for Excusable Delay for *Weather Delay Impacts to PM-30-4-17, Complete Well Drilling of Six Wells by March 31, 2017*, on March 30, 2017. CHPRC requested the due date be adjusted by 15 working days (4x10 schedule), from March 31, 2017, to April 26, 2017. Additionally, CHPRC requested a PRC cost adjustment of \$124,800 to cover the additional subcontract cost caused by the excusable delay.
- Efforts to quantify schedule and cost impacts are continuing.

**Issue:**

Work authorization has not been provided by RL for scope associated with one FY2017 Performance Measure, potentially putting CHPRC's ability to complete it in FY2017 at risk.

**Corrective Action:**

- Obtain RL authorization to proceed on scope associated with:
  - PM-13-2-17, Repackage 280m<sup>3</sup> of transuranic (TRU) Mixed (TRUM) or Mixed Low Level Waste (MLLW) – authorization needed to accelerate FY2018 scope in order to complete the Performance Measure.

**Status:**

- Request submitted informally to DOE-RL in December 2016. Authorization received May 1, 2017. This will no longer be reported as a major issue moving forward.

**Issue:**

Significant Contract Change Management is ongoing and must be resolved to retain Plateau Remediation Contract (PRC) alignment for fiscal year (FY) 2017/FY2018.

- As of April month end, there was a backlog of 42 undefinitized Change Proposals (CPs) and responses to Requests for Proposals (RFPs) – totaling approximately \$291 million in net value (RCCC scope, WA-1 Characterization, and other Change Orders valued at approximately \$337 million offset by Management of Cesium and Strontium Capsules Capital Asset (MCSC) Project deduct proposal valued at about \$46 million for work to be completed outside CHPRC period of performance).

**Corrective Action:**

- Work with RL to reach agreement on PRC FY2017/FY2018 alignment and support RL evaluation and determination of the disposition of undefinitized CHPRC CPs/REAs.

**Status:**

- Four additional CPs were submitted to RL in April, increasing backlog.
- CHPRC continues to discuss proposed alignment strategy with RL.
- CHPRC is making it a priority to respond to RL Requests for Information and Truthful Cost or Pricing Data submittal requests in a timely manner to provide RL with current information to enable them to negotiate and definitize open changes.

**Issue:**

Resource Availability/Staffing Needs – schedule delays and emerging issues at PFP have resulted in the need for unplanned resources and delayed planned roll-off of PFP staff. Delay has impacted workforce restructuring planning and may impact other project's ability to perform other activities as planned due to unavailability of staff assumed to be released by PFP.

**Corrective Action:**

- Update staffing analysis to evaluate options to support work priorities and workforce restructuring.
- Hire short-term craft personnel to support PFP and other project needs.

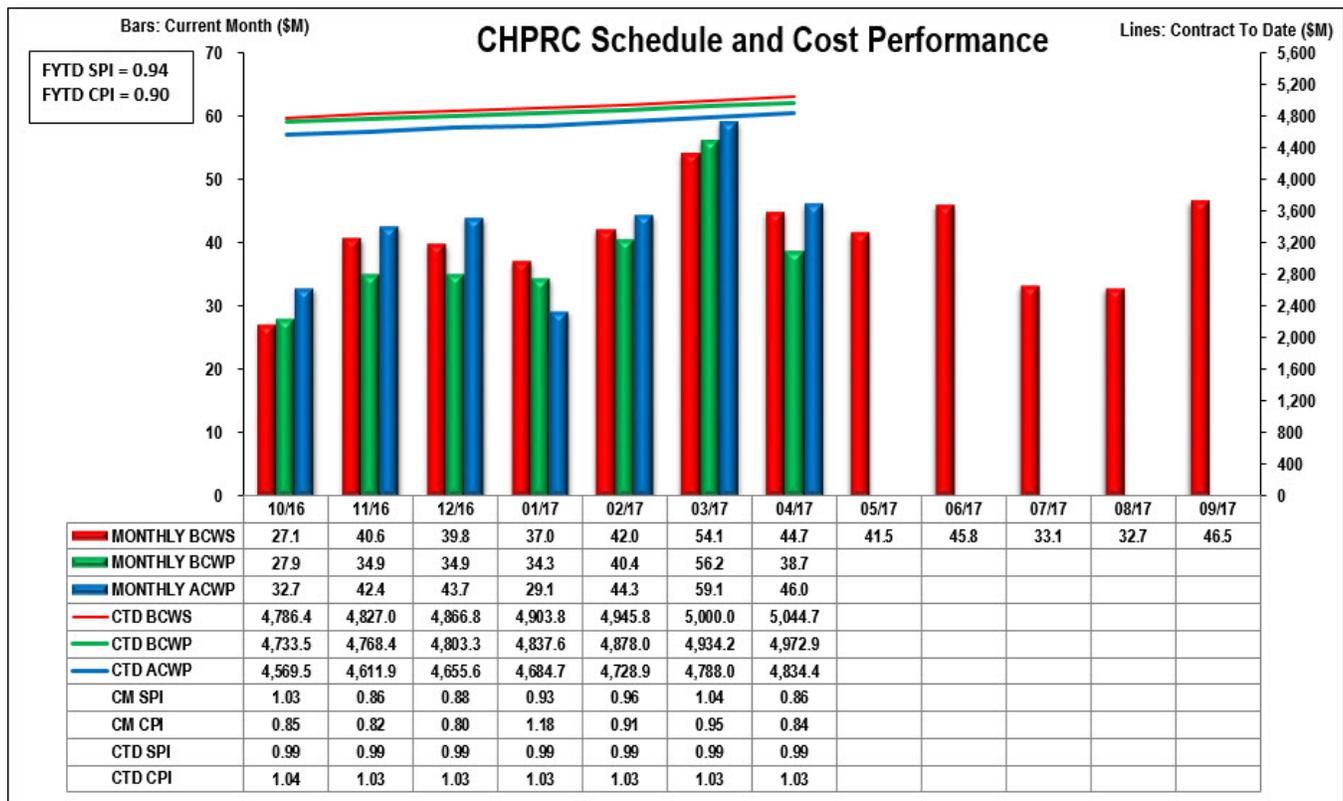
**Status:**

- Updated staffing analysis addressing the delay in the PFP planned roll-off and other project staffing needs has been completed.
- Moving ahead with workforce restructuring and continuing to work to minimize impacts to other projects.

**Projects**

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

## EARNED VALUE MANAGEMENT



	\$M					\$M					\$M		
	Current Period					Contract to Date					Contract Period		
	Budgeted Cost		Actual Cost		Variance	Budgeted Cost		Actual Cost		Variance	BAC	EAC	Variance
	BCWS	BCWP	ACWP	Schedule	Cost	BCWS	BCWP	ACWP	Schedule	Cost			
RL-0011 - Nuclear Materials Stab & Disp PFP	0.8	4.0	10.5	3.2	(6.5)	979.9	936.9	1014.7	(43.1)	(77.8)	980.5	1,068.9	(88.4)
RL-0012 - SNF Stabilization & Disposition	6.6	4.8	6.0	(1.8)	(1.2)	667.5	668.4	639.5	0.9	28.9	740.6	707.0	33.6
RL-0013 - Solid Waste Stab & Disposition	8.7	7.8	7.4	(1.0)	0.3	1149.2	1147.4	1072.8	(1.8)	74.5	1,345.4	1,293.2	52.2
RL-0030 - Soil & Water Rem-Grndwtr/Vadose	13.4	10.5	10.2	(2.9)	0.3	1364.8	1338.5	1304.7	(26.3)	33.8	1,566.5	1,501.5	65.0
RL-0040 - Nuc Fac D&D - Remainder	2.4	1.8	2.3	(0.6)	(0.6)	438.3	433.1	403.1	(5.3)	30.0	481.3	452.3	29.0
RL-0041 - Nuc Fac D&D - RC Closure Project	12.7	9.7	9.3	(3.0)	0.4	421.6	425.5	380.5	3.9	44.9	554.7	496.9	57.8
RL-0042 - Nuc Fac D&D - FFTF Project	0.2	0.2	0.2	(0.0)	0.0	23.3	23.3	19.1	(0.0)	4.2	26.5	23.2	3.2
<b>Total</b>	<b>44.7</b>	<b>38.7</b>	<b>46.0</b>	<b>(6.1)</b>	<b>(7.3)</b>	<b>5,044.7</b>	<b>4,972.9</b>	<b>4,834.4</b>	<b>(71.8)</b>	<b>138.5</b>	<b>5,695.4</b>	<b>5,543.0</b>	<b>152.4</b>

(Values are rounded to the nearest \$0.1M)  
(Values do not have UB breakout)

\* In regards to RL-0041, CHPRC has implemented the River Corridor Closure Contract (RCCC) transitioned scope into the Performance Measurement Baseline (PMB) for Earned Value Management (EVM) reporting purposes. When the change orders (CO #304, #305, #306) are definitized, BCRs will be processed to align the PMB with the definitized values.

### Performance Summary

CHPRC continues to track completion of the contract scope within budget and is currently projecting a Variance at Completion of \$152.4 million, with \$62.7 million of Management Reserve (MR), for a total positive variance of \$215.1 million. For April, the project was 13.5 percent behind schedule and 18.9 percent over planned cost. Contract to Date (CTD), the project was 1.4 percent behind schedule and 2.8 percent under planned cost.

The current month negative schedule variance is primarily due to project breakdown structure (PBS) RL-0041, which delayed treatment of drum waste sent off the 618-10 Burial Ground site to an offsite waste processing subcontractor. 316-4 Waste Site experienced delays in overburden removal. The 300-296 project experienced delays in planned airlock and cell cleanout activities. Additionally, the 300-296 manipulators were received in April, but not green-tagged until April 24, 2017, the day after month-end, resulting in a schedule variance. The scheduled payment for the procurement/receipt occurred later than planned. 100K Closure soil remediation activities also contributed to the variance caused by site closures and weather delays from snow, ice, and frozen ground in winter months. The start of remediation activities in Waste Site Areas AA and AH was delayed and the progression of remediation at Waste Site 100-K-103 in Area AF was slowed. Additionally, the mobilization of the new contractor, unrelated to weather, did not occur as planned due to delays associated with training and medical processing of the new personnel. The culmination of these issues have shifted the entire soil remediation schedule, and the planned efficiencies from higher volumes of soil to ERDF will now occur during summer months.

Also contributing to the negative schedule variance is PBS RL-0030 delay of the 100-NR-2 Barrier maintenance and expansion activities, which were scheduled to start in FY2016 but were deferred due to funding limitations and pending resolution of cultural clearance items. Some cultural clearance and other planning activities are forecast to complete in FY2017, with fieldwork initiating in FY2018. Preparation of the internal draft 200-IS-1 RI/FS Report and Proposed Plan is scheduled during this period. The baseline planned a July 2016 start date for the 200-IS-1 RI/FS Report based on the work plan (WP) being approved with no characterization required. The WP is currently on hold due to scope dispute resolution (Tri-Party Agreement Milestone M-015-112). Additionally, positive performance earned in prior periods (work acceleration) for 200-PO-1 NRDWL and 100-HR-3 optimization, and 200-UP-1 SE chrome plume characterization drilling campaigns, 100-HR-3 D&D, and 100-HR-3 well realignments, is returning to zero by the end of FY2017.

This is partially offset by PBS RL-0011s completion of historical BCWS associated with the 26-inch process vacuum removal, characterization, asbestos, drain lines, E3/E4 duct scope, trench grouting, and drain line remediation in 234-5Z, as well as sample and process vacuum system removal in 291-Z. Because all work is historical, the current schedule variance will be favorable going forward. Additionally, performance of behind schedule demolition work scope associated with the demolition of 236-Z and 242-Z also contributes to this positive variance.

The current month negative cost variance is primarily due to PBS RL-0011 delay in completion of the PFP Project to achieve slab on grade. The delay is causing needed extensions of both Minimum Safe, Maintenance, and D&D project management resources, without BCWS, to support the remaining D&D work scope until the facility becomes ready for demolition. In addition, asbestos abatement, E4 duct removal, and process vacuum removal are all requiring more time and additional resources to complete work. Additional resources (i.e., pipefitters, electricians, insulators, Radiological Control Technicians) have also been hired temporarily to attempt to recover schedule. Additional activities have been identified that require removal of approximately an additional 10,000 feet of asbestos that was not visible on any plant drawings when the baseline was developed, further delaying the demolition ready activities. Due to delays in ready-for-demo activities, resources supporting waste processing activities that were planned to be completed in FY2016 are continuing to charge for support of waste loadout, processing, and shipping. Additional unplanned shipping materials (waste shipping containers (TL-1800s, SLB2s, IP-1 bags, etc.)) were also required to support waste load-out activities. Unplanned shipments of drums to Perma-Fix Northwest also contributed to the unfavorable variance. Continuation of quarterly stipend certification payments is also contributing to this variance. In addition, due to the historical (December 2015) radiological issues resulting in compensatory measures that have been implemented at PFP, additional radiological and industrial hygiene resources have been assigned to support the PFP Project until the slab-on-grade milestone is met.

## FUNDING ANALYSIS

### FY2017 Funds vs. Fiscal Year Spend Forecast

(\$M)

PBS	Project	FY2017		Variance
		Projected Funding	Spending Forecast	
<b>Estimate at Complete</b>				
RL-0011	Nuclear Materials Stabilization and Disposition	134.5	126.4	8.1
RL-0012	Spent Nuclear Fuel Stabilization and Disposition	32.4	31.0	1.4
RL-0012	15-D-401 Sludge Retrieval Project	65.0	45.6	19.4
RL-0013	Waste and Fuels Management Project	112.1	92.9	19.2
RL-0030	Soil, Groundwater and Vadose Zone Remediation	126.6	108.2	18.3
RL-0040	Nuclear Facility D&D, Remainder of Hanford	38.9	24.1	14.8
RL-0041	Nuclear Facility D&D, River Corridor	146.3	109.8	36.5
RL-0042	Fast Flux Test Facility Closure	3.9	1.9	2.0
<b>Total Estimate at Complete</b>		<b>659.6</b>	<b>539.9</b>	<b>119.7</b>
<b>Incremental Scope Pending Change Management</b>				
RL-0011	Nuclear Materials Stabilization and Disposition	0.0	0.0	0.0
RL-0012	Spent Nuclear Fuel Stabilization and Disposition	0.0	0.0	(0.0)
RL-0012	15-D-401 Sludge Retrieval Project	0.0	0.0	(0.0)
RL-0013	Waste and Fuels Management Project	0.0	3.4	(3.4)
RL-0030	Soil, Groundwater and Vadose Zone Remediation	0.0	14.2	(14.2)
RL-0040	Nuclear Facility D&D, Remainder of Hanford	0.0	3.9	(3.9)
RL-0041	Nuclear Facility D&D, River Corridor	0.0	14.7	(14.7)
RL-0042	Fast Flux Test Facility Closure	0.0	0.0	0.0
<b>Total Incremental Work Scope</b>		<b>0.0</b>	<b>36.1</b>	<b>(36.1)</b>
<b>Total Fiscal Year Spend Forecast</b>				
RL-0011	Nuclear Materials Stabilization and Disposition	134.5	126.4	8.1
RL-0012	Spent Nuclear Fuel Stabilization and Disposition	32.4	31.0	1.4
RL-0012	15-D-401 Sludge Retrieval Project	65.0	45.6	19.4
RL-0013	Waste and Fuels Management Project	112.1	96.3	15.9
RL-0030	Soil, Groundwater and Vadose Zone Remediation	126.6	122.4	4.2
RL-0040	Nuclear Facility D&D, Remainder of Hanford	38.9	28.0	10.8
RL-0041	Nuclear Facility D&D, River Corridor	146.3	124.4	21.9
RL-0042	Fast Flux Test Facility Closure	3.9	1.9	2.0
<b>Total</b>		<b>659.6</b>	<b>576.0</b>	<b>83.6</b>

#### Funds/Variance Analysis

FY2017 expected funding increased for April, from \$612.6 million to \$659.6 million for a total change of \$47 million. The total spending forecast decreased by \$13 million from last month as the projects incorporated reductions based on revised priorities.

## BASELINE CHANGE REQUESTS

In April 2017, CHPRC approved and implemented 13 Baseline Change Requests (BCRs) into the Performance Measurement Baseline (PMB). Eight of the 13 BCRs impacted the PMB. Each change request is identified in the table below:

Change Request #	Title	PBS	Summary of Change
BCR-012C-17-009R0	<i>ECRTS Procurement and Annex &amp; In Basin Installation MR Draw</i>	RL-0012	This BCR drew Management Reserve (MR) for in-scope unplanned work associated with the ECRTS Procurement and the Annex and In Basin Equipment Installations. This BCR increased the PMB value by \$371K.
BCRA-030-17-016R0	<i>PBS RL-030 Correct Activity Descriptions</i>	RL-0030	This BCR corrected the activity descriptions for four activities that referenced the wrong change order number. This BCR does not change the PMB value.
BCR-040-17-011R0	<i>PBS RL-040 Baseline Schedule Clean-Up</i>	RL-0040	This BCR removed a 252-day lag between two activities, and changes the EVM on 3 activities from apportioned to LOE. This BCR does not change the PMB value.
BCR-041-17-012R0	<i>Incorporate CO #319 Garnet Filter Media Retrieval System</i>	RL-0041	This BCR incorporated CO #319 for the scope and Not to Exceed (NTE) to complete fabrication through startup of the Garnet Filter Media Retrieval System. This BCR increased the PMB value by \$750K.
BCR-041-17-014R0	<i>Incorporate CO #320 Sand Filter Media Retrieval</i>	RL-0041	This BCR incorporated CO #320 for the scope and NTE to prepare preliminary design for the Sand Filter Media Retrieval System. This BCR increased the PMB value by \$750K.
BCR-041-17-015R0	<i>Incorporate CO #326 105K West Fuel Storage Basin</i>	RL-0041	This BCR incorporated CO #326 for the scope and NTE for detailed characterization of the 105-K West Fuel Storage Basin. This BCR increased the PMB value by \$750K.
BCR-041-17-016R0	<i>Incorporate CO #305 300-296 Waste Site Design Review</i>	RL-0041	This BCR incorporated the scope and NTE increase for contract mod 585 for change order #305, 300-296 Waste Site Design Review. This BCR increased the PMB value by \$4,246K.
BCR-041-17-018R0	<i>Modify 316-4 Revegetation Logic Ties</i>	RL-0041	This BCR added the correct logic ties between the 316-4 Waste Site Backfill activities and the revegetation activities that were not implemented in BCR-041C-17-010-R0. This BCR does not change the PMB value.
BCR-041-17-019R0	<i>Incorporate Mod 572 Definitize Gamma-Ray Imaging Spectrometer</i>	RL-0041	This BCR incorporated Contract Modification 572 for the definitization of the scope for the purchase of one Gamma-Ray Imaging Spectrometer in support of 100-K Deactivation activities. This BCR increased the PMB value by \$130K.
BCRA-PRC-17-021R0	<i>Base Year Shift in Support of FY2018 Annual Update</i>	RL-0011, RL-0012, RL-0013, RL-0030, RL-0040, RL-0042	This BCR was performed to ready the non-Capital Asset Project scope P6 and Cobra files for initiating the FY2018 Annual PMB Update. This BCR does not change the PMB value.
BCR-PRC-17-022R0	<i>Incorporate CO #321, Management of RCRA Site Wide Permit Rev 9</i>	RL-0040 000s	This BCR incorporated CO #321 Management and Coordination for Reissuance of the Draft Hanford RCRA Site Wide Permit Revision 9 Scope and NTE increase and move scope to indirect activity. This BCR decreased the PMB value by \$50K.

BCRA-PRC-17-024R0	<i>HPIC Updates April 2017</i>	RL-0012, RL-0013, RL-0030, RL-0040, RL-0041, 000s	This BCR incorporates April FY2017 Hanford Programs Integrated Control Module (HPIC) updates. This BCR does not change the PMB value.
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The Allocated (Distributed) Budget increased by \$6,947K.

#### Undistributed Budget Activity

BCR Number	Title	PBS	Fiscal Year	UB
BCR-PRC-17-023R0	<i>Undistributed Budget Adjustments April 2017</i>	RL-0040 RL-0041	2017-2018	\$925K

The Undistributed Budget increased by \$925K.

#### Management Reserve Activity

BCR Number	Title	PBS	Fiscal Year	MR
BCR-012C-17-009R0	<i>ECRTS Procurement and Annex &amp; In Basin Installation MR Draw</i>	RL-0012	2017 – 2018	\$-371K

Overall, there was a decrease in Management Reserve (MR) of \$371K during April.

#### Fee Activity

BCR Number	Title	PBS	Fiscal Year	Fee
N/A	N/A	N/A	2017 – 2018	N/A

Overall, there was no change to the Fee during April.

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

### April 2017 Summary of Changes

	FY 2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FYs 2014-2018	Contract Period Total	Total PMB
<b>March 2017 Estimate</b>									
PMB	3,391,477	391,653	471,323	504,826	478,626	449,670	2,296,097	5,687,574	5,687,574
MR	0	0	0	0	31,294	31,798	63,092	63,092	63,092
Fee	155,504	14,325	14,501	27,804	10,546	18,636	85,811	241,315	241,315
<b>Total</b>	<b>3,546,981</b>	<b>405,978</b>	<b>485,824</b>	<b>532,630</b>	<b>520,466</b>	<b>500,104</b>	<b>2,445,001</b>	<b>5,991,982</b>	<b>5,991,982</b>
<b>April 2017 Change</b>									
<b>PMB</b>									
Change to PMB	0	0	0	0	6,407	1,465	7,872	7,872	7,872
<b>MR</b>									
Change to MR	0	0	0	0	-371	0	-371	-371	-371
<b>Fee</b>									
Change to Fee	0	0	0	0	0	0	0	0	0
<b>Total Change</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6,036</b>	<b>1,465</b>	<b>7,500</b>	<b>7,500</b>	<b>7,500</b>
<b>April 2017 Estimate</b>									
PMB	3,391,477	391,653	471,323	504,826	485,033	451,134	2,303,969	5,695,446	5,695,446
MR	0	0	0	0	30,923	31,798	62,720	62,720	62,720
Fee	155,504	14,325	14,501	27,804	10,546	18,636	85,811	241,315	241,315
<b>Total</b>	<b>3,546,981</b>	<b>405,978</b>	<b>485,824</b>	<b>532,630</b>	<b>526,502</b>	<b>501,568</b>	<b>2,452,501</b>	<b>5,999,481</b>	<b>5,999,481</b>

### Changes to/Utilization of Management Reserve in April 2017

	FY2009-2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2014-2018	Total
<b>March 2017 MR Totals</b>								
RL-0011	0	0	0	0	6,875	0	6,875	6,875
RL-0012	0	0	0	0	6,782	3,262	10,044	10,044
RL-0013	0	0	0	0	1,422	7,208	8,629	8,629
RL-0030	0	0	0	0	8,081	10,380	18,462	18,462
RL-0040	0	0	0	0	0	0	0	0
RL-0041	0	0	0	0	8,095	10,847	18,942	18,942
RL-0042	0	0	0	0	38	101	139	139
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>31,294</b>	<b>31,798</b>	<b>63,092</b>	<b>63,092</b>
<b>April 2017 MR Changes/Utilization</b>								
RL-0011	0	0	0	0	0	0	0	0
RL-0012	0	0	0	0	(371)	0	-371	-371
RL-0013	0	0	0	0	0	0	0	0
RL-0030	0	0	0	0	0	0	0	0
RL-0040	0	0	0	0	0	0	0	0
RL-0041	0	0	0	0	0	0	0	0
RL-0042	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-371</b>	<b>0</b>	<b>-371</b>	<b>-371</b>
<b>April 2017 MR Totals</b>								
RL-0011	0	0	0	0	6,875	0	6,875	6,875
RL-0012	0	0	0	0	6,411	3,262	9,673	9,673
RL-0013	0	0	0	0	1,422	7,208	8,629	8,629
RL-0030	0	0	0	0	8,081	10,380	18,462	18,462
RL-0040	0	0	0	0	0	0	0	0
RL-0041	0	0	0	0	8,095	10,847	18,942	18,942
RL-0042	0	0	0	0	38	101	139	139
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>30,923</b>	<b>31,798</b>	<b>62,720</b>	<b>62,720</b>

## SELF-PERFORMED WORK

Business structure information documents ongoing compliance with the requirements of the Contract Section H.20 clause entitled *Self-Performed Work*.

Contract-to-Date Actual Awards & Mods				Projection to FY2018	
10/1/2008 - 4/30/2017				Planned Subcontracting:	\$2,720,084,369
Reporting Category				Contract-to-date awards:	\$2,525,130,065
				Bal remaining to award:	\$194,954,304
	\$ Value	%	Goal %	Goal award\$	Bal to Goal
SB	\$1,383,270,112	54.78%	49.3%	\$1,341,001,594	-\$42,268,518
SDB	\$247,031,444	9.78%	8.2%	\$223,046,918	-\$23,984,525
SWOB	\$268,284,125	10.62%	7.5%	\$204,006,328	-\$64,277,798
HUB	\$59,694,082	2.36%	2.2%	\$59,841,856	\$147,775
VOSB	\$194,571,803	7.71%	3.5%	\$95,202,953	-\$99,368,850
SDVO	\$113,941,217	4.51%	1.3%	\$35,361,097	-\$78,580,120
NAB	\$55,107,141	2.18%	N/A	PRC clause H.20 small business requirement ≥ 17% of CHPRC Contract Price performed by SB.	
Large	\$651,004,907	25.78%	N/A		
GOVT	\$3,353,705	0.13%	N/A		
GOVT CONT	\$483,186,359	19.14%	N/A		
EDUCATION	\$110,685	0.00%	N/A	CHPRC Contract Value:	\$5,732,255,464
NONPROFIT_	\$3,779,435	0.15%	N/A	17% rqmt:	\$974,483,429
FOREIGN	\$424,861	0.02%	N/A	SB actual:	\$1,383,270,112
Total	\$2,525,130,065	100.00%	N/A	Bal to rqmt	-\$408,786,683

### Notes:

1. Since the CHPRC contract award in October 2008, CHPRC has subcontracted \$2.5 billion in goods and services, with over 54 percent going to small businesses. Nearly all subcontracting goals have been exceeded.
2. Approximately 91 percent of the total dollars arise from service and staffing contracts and contract amendments, with 6 percent of the remaining expenditures arising from P-Card purchases and 3 percent from the balance in purchase orders for materials and equipment.
3. Data is summarized by business categories (Women Owned Minority Business Enterprise codes) in accordance with socioeconomic reporting requirements. Small business categories overlap and should not be added together.

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

Contract Section	Project	GFS/I	Status
<b>CONTRACT</b>			
J.12/C.2.2, C.2.3	PBS-11, Plutonium Finishing Plant Closure Project  PBS-13, Solid and Liquid Waste Treatment and Disposal	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, Inc. (PFNW) locations. RL is the authorized shipper and acts as signatory on the shipping papers, and ensures DOE Manual 460.2-1 is complied with RL arranges for Commercial Motor Vehicle Safety Alliance (CVSA) level VI vehicle inspections and verifies that the government drivers meet the applicable Department of Transportation (DOT) Federal Motor Carrier Safety Regulations (49 CFR 382 and 383). RL also inspects the load securement to ensure compliance with DOT regulations and/or Transportation Safety Document (TSD) requirements.	Ongoing
J.12/C.2.3.6	PBS-13, Transuranic Waste Certification	WIPP provides shipping resources and manages the schedule for transportation of these containers to WIPP. The schedule is variable and the number of shipments is controlled by DOE-HQ on a complex-wide priority. Cost for shipment of TRU waste offsite is borne by the CBFO.	No WIPP shipments are planned within the contract period of performance.

## DOE ACTIONS/DECISIONS

Refer to Sections A through G as well as Appendix C of this report for the project specific DOE Actions / Decisions.

# Section A

## Nuclear Materials Stabilization and Disposition of PFP (RL-0011)



T. E. Bratvold  
Vice President for  
Plutonium Finishing  
Plant Closure  
Project

April 2017  
CHPRC-2017-04, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

The removal of plutonium-contaminated process equipment continued with a particular focus on removing gloveboxes, associated piping, and ductwork. All gloveboxes have been removed from E4 ventilation, and all preparations for demolition starting in the Plutonium Reclamation Facility (PRF) are complete. Initiation of demolition on the PRF started in early November 2016. Initiation of demolition on the 242-Z Facility started in early January 2017 and was completed in April 2017. Demolition on the 236-Z facilities is ongoing.

The Plutonium Finishing Plant (PFP) Closure Project continues to maintain PFP facilities compliant with authorization agreement requirements.

Significant accomplishments in April included:

- Completed demolition load-out of the 242-Z facility.
- Continued preparations for removal of HA-7A and HC-7C gloveboxes from 234-5Z.
- Removed the HC-18M glovebox from the 234-5Z Facility and staged for shipment to Perma-Fix Northwest.
- Grouting of the 234-5Z pipe trenches is 93 percent complete. Identified 14 additional suspect trenches for grouting, seven of which were determined to require additional grouting.
- Identified approximately 17 pits in the 234-5Z Facility, 12 of which were determined to require grouting. Grouting is 42 percent complete.
- Continued preparations for the draining, venting, isolating, drying, and epoxy filling of Transuranic (TRU) drain lines in the 234-5Z below-grade tunnels.
- Continued demolition activities on 236-Z Facility.
- Abated 696 feet of asbestos.
- Removed or dispositioned in place 391-feet of process vacuum piping.
- Shipped 19 m<sup>3</sup> TRU Waste.
- Shipped 133 m<sup>3</sup> Low Level Waste/Mixed Low Level Waste (LLW/MLLW).

### 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	-	232 gloveboxes/hoods
<b>COMPLETE</b> KPP Rooms/Areas Ready for Demo	-	60 rooms/areas
Asbestos/ Asbestos Containing Material (ACM) Removed	696	31,611
Process Vacuum Piping Dispositioned	391	6,567 feet
<b>COMPLETE</b> Process Transfer Line Dispositioned	-	1,525 feet
<b>COMPLETE</b> Pencil Tank Units Removed (Shipped)	-	196 pencil tank units
Buildings Ready for Demo	-	50 structures
Buildings Demolished or Removed	1	49 structures
Non-radioactive Waste Shipped	-	76 m <sup>3</sup>
Transuranic /Transuranic Mixed (TRU/TRU-M) Shipped	19 m <sup>3</sup>	2,414m <sup>3</sup>
LLW/MLLW Shipped	133 m <sup>3</sup>	8,787 m <sup>3</sup>

## Environmental Management System (EMS) Objectives and Target Status

Objective #	Objective	Targets	Actions	Due Date	Status
16-EMS-PFP-OB1-T1	Minimize emissions resulting from demolition of 234-5Z, 236-Z, 242-Z, and 291-Z.	Inspect 234-5Z, 236-Z, 242-Z, and 291-Z for the presence of asbestos containing materials (ACM) and produce a report identifying ACM requiring removal or abatement and methods for protecting remaining ACM from resulting in visible emissions.	1. Issue report documenting thorough inspection of 236-Z	08/16/16	100%
			2. Issue report documenting thorough inspection of 242-Z	05/26/16	100%
			3. Issue report documenting thorough inspection of 234-5Z (This will be completed Early June, 2017)	04/30/17	95%
			4. Issue report documenting thorough inspection of 291-Z	05/30/17	100%
17-EMS-PFP-OB1-T1	Reduce the risk of noncompliance with environmental requirements during demolition at PFP.	Reduce risk of noncompliance with applicable environmental requirements by enhancing the environmental screening process for demolition packages for 242Z, 234-5Z, and 291Z. Thereby reducing the overall impacts from PFP's significant aspects.	1. Create ready for demolition checklist for 242Z/ZA	11/30/16	100%
			2. Review 242Z/ZA demolition work package against environmental requirements	12/29/16	100%
			3. Create ready for demolition checklist for 291Z	02/28/17	100%
			4. Review 291Z demolition work package against environmental requirements	03/30/17	100%
			5. Create ready for demolition checklist for 234-5Z	03/30/17	100%
			6. Review 234-5Z demolition work package against environmental requirements	04/27/17	100%

## TARGET ZERO PERFORMANCE

	Current Month	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	2	N/A
Total Recordable Injuries	0	1	N/A
First Aid Cases	4	70	<ul style="list-style-type: none"> <li>• 4/4/2017 - Employee misplaced foot on stairs, causing loss of footing/balance and fell approximately five steps to the ground. Employee was examined and was released to return to work without restriction. (24421)</li> <li>• 4/10/2017 - Employee inadvertently stepped on a rock that was lying on the sidewalk, rolling right ankle. Employee was taken to HPMC for evaluation/treatment and returned to work with restrictions. Employee was also seen by an off-site physician and returned to work with additional restrictions and an ankle brace for support. (24426)</li> <li>• 4/10/2017 - Employee was working in the capacity as a safety oversight, observing scaffold-erecting activities, when scaffold parts were thrown, producing a loud noise as they struck the floor. Employee experienced extreme pain in left ear at the time of the incident and has experienced pain and a constant ringing in left ear. Employee was examined and released to return to work without restriction. (24428)</li> <li>• 4/27/2017 - Employee hurt right side of neck muscles while climbing out of dumpster used for cardboard. Employee was taken to HPMC, examined and diagnosed as having a right side neck strain/sprain. Employee was given non-prescription strength medication and was released to return to work without restriction. (24442)</li> </ul>
Near Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### RL-0011 Accomplishments

#### 234-5Z

- Abated 696 feet of asbestos.
- Removed or dispositioned in place 391-feet of process vacuum piping.
- Grouting of the 234-5Z pipe trenches is 93 percent complete.
- Identified 14 additional suspect trenches for grouting; seven of which were determined to require additional grouting.
- Identified potentially 17 pits in the 234-5Z Facility, 12 of which were determined to require grouting. Grouting is 42 percent complete.
- Continued preparations for the draining, venting, isolating, drying, and epoxy filling of TRU drain lines in the 234-5Z below-grade tunnels.
- Continued preparations for removal of HA-7A and HC-7C gloveboxes from 234-5Z.
- Removed the HC-18M Glovebox from 234-5Z and staged for shipment for Perma-Fix Northwest for size reduction.

#### PFP Waste Operations

- Shipped 19 m<sup>3</sup> TRU/TRU-M waste.
- Shipped 133 m<sup>3</sup> LLW/MLLW.

#### Demolition Activities

- Completed demolition load-out activities for the 242-Z Building.
- Continued demolition activities on the 236-Z Facility.

#### PTS

- Training and Procedures
  - Developed procedure change management plan for Documented Safety Analysis (DSA) 234-5Z demolition phase.

## MAJOR ISSUES

- None currently identified.

## RISK MANAGEMENT STATUS

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

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

- Increased Confidence
- No Change
- Decreased Confidence

Risk Title	Unmitigated Risk Impacts	Assessment		Comments								
		Month	Trend									
<b>RL-0011/WBS-011.OA</b>												
<b>Explanation of major changes to the project monthly spotlight chart:</b> No major changes to the monthly spotlight chart in the month of <b>April</b> .												
<b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>												
PFP-096: PPE availability or failed respirator equipment impacts planned D&D work	Due to old generation Personal protective equipment (PPE), respirator equipment fails planned D&D work and impacts project with cost and schedule delays. <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$300K, 24 days			<p><b>Risk Event:</b> The project <b>previously experienced</b> impacts from a stop work that was issued by another Hanford contractor on the use of respirators as a result of a powered air purifying respirator (PAPR) shutting down during a training evolution on the use of the equipment.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Risk Recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Procure additional PPE with new generation respirator equipment.</td> <td>04/15/16</td> <td>Ongoing</td> <td>Ongoing</td> </tr> </tbody> </table> <p><b>Recovery Assessment:</b>                      During the month of March, the project experienced issues with the shutdown of four PAPR units. There was no impact to the project, as spare respirators had been previously procured to mitigate the potential of this risk occurring. However, a stop work on the use of the PAPR units was issued by another Hanford contractor during a training class on the use of the PPE resulting in the inability to complete insulator 40 hour Occupational Safety and Health Administration (OSHA) training and impacting the ability to deploy the insulator resources into the field to support asbestos removal activities at PFP. <b>This issue was resolved and there were no impacts to the PFP Project as a result of this incident.</b> This risk was designated to be realized based on several events related to failed PPE. The vendor (Mine Safety Appliance) recognized that there was a defect in the units that were procured and has replaced all of the units that were purchased and introduced into the field at no cost to CHPRC). The mitigation strategies have been put in place, as a result, the risk strategy is to accept with no further mitigation actions.</p>	Risk Recovery action(s)	Risk Date	FC Date	%	Procure additional PPE with new generation respirator equipment.	04/15/16	Ongoing	Ongoing
Risk Recovery action(s)	Risk Date	FC Date	%									
Procure additional PPE with new generation respirator equipment.	04/15/16	Ongoing	Ongoing									

Risk Title	Unmitigated Risk Impacts	Assessment		Comments																				
		Month	Trend																					
<b>RL-0011/WBS-011.OA</b>																								
PFP-092-02: Final Facility Characterization Identifies Unexpected Hold-up	Unexpected or late discovery of radiological (Pu) or chemical (Asbestos) holdup requiring Added facility deactivation. <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$380K, 24 days			<p><b>Risk Event:</b> Based on characterization data, the amount of asbestos insulated piping to be removed had been estimated since FY2013 to be approximately 24,000 linear feet. In January, about an additional 10,000 feet of asbestos was discovered, taking the total of asbestos to be removed to about 35,829 feet. <b>No added asbestos was discovered in April.</b> With April 2017 progress, the PFP project has actually removed over 31,004 linear feet to date, with additional asbestos still remaining to be removed. <b>Special handling of high holdup material discovered in March was completed, extending on-going process vacuum system deactivation by two weeks.</b> In April, Criticality Safety requirements needed to establish accident incredibility were identified. This has enabled an ability to leave segments of the system for surgical removal during demolition. As such, work scope is being aligned to achieve staging requirements for removal of remaining segments by this manner.</p> <table border="1"> <thead> <tr> <th>Risk Recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Collaborate with Safeguards to develop and approve Safeguards termination criteria for remnant piping and duct work.</td> <td>01/09/17</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Collaborate with Criticality Safety to recognize the reduced removal action necessary for Safeguards termination and as feasibly warranted, revise CSER requirements to achieve a criticality incredible state</td> <td>01/09/17</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Work with RL to utilize contingency for about an additional 10,000 feet of asbestos identified during walkdowns and inspections</td> <td>01/09/17</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Finalize path forward for stubs and segments</td> <td>4/27/17</td> <td>5/25/17</td> <td>75</td> </tr> </tbody> </table> <p><b>Recovery Assessment:</b> Based on completed inspections, this risk has been <b>realized</b> by additional TSI identified that was not part of the original engineering estimate that was used to develop the RL-011 baseline. <b>Recovery actions</b> focus on managing the need for added asbestos abatement work. Discussions are underway on utilizing contingency funds to strengthen the asbestos abatement work force to complete the added scope of work. With respect to the emerging risk regarding characterization of remnant stubs and piping left for facility demolition, RL formally accepted the proposed Safeguards termination criteria. <b>Current accounting of remnants is tracking to achieve criticality incredibility conditions.</b> Final consideration of impacts to air dispersion modeling as well as waste disposition have been evaluated, resulting in finalizing the scope of ductwork in need of removal and that which can remain in place for demolition. <b>While the Safeguards and Criticality safety, and air dispersion programmatic action has enabled the opportunity to reduce scope of remaining ongoing facility deactivation work, such relaxation does not come without added rigor.</b> There is now need to determine whether or not it is best to either apply fixatives and verify effectiveness, or foam, or continue with planned removal of an itemized list of stubs and segments. Given the potential impact to the 234-5Z demolition schedule, per PRC-MP-PC-40167, this risk remains critical.</p>	Risk Recovery action(s)	Risk Date	FC Date	%	Collaborate with Safeguards to develop and approve Safeguards termination criteria for remnant piping and duct work.	01/09/17	Complete	100	Collaborate with Criticality Safety to recognize the reduced removal action necessary for Safeguards termination and as feasibly warranted, revise CSER requirements to achieve a criticality incredible state	01/09/17	Complete	100	Work with RL to utilize contingency for about an additional 10,000 feet of asbestos identified during walkdowns and inspections	01/09/17	Ongoing	N/A	Finalize path forward for stubs and segments	4/27/17	5/25/17	75
Risk Recovery action(s)	Risk Date	FC Date	%																					
Collaborate with Safeguards to develop and approve Safeguards termination criteria for remnant piping and duct work.	01/09/17	Complete	100																					
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Work with RL to utilize contingency for about an additional 10,000 feet of asbestos identified during walkdowns and inspections	01/09/17	Ongoing	N/A																					
Finalize path forward for stubs and segments	4/27/17	5/25/17	75																					
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)																								
No critical risks identified in the month of April.																								
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)																								
PFP-DEMO-24: Stop work from concerned workers	Concerned workers results in a stop work to address an off-normal or safety issue. The work cannot be restarted until the implementation of corrective actions is completed. <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Very Likely (>90%) <b>Worst Case Impacts:</b> \$0K, 24 days			<p><b>Risk Trigger:</b> The project has experienced stop works from concerned workers due to SCBA cylinders, failed respirator equipment, chemical concerns, contamination events, and jurisdictional issues.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> No major changes in the month of April. The mitigation strategies have been put in place, as a result, the risk strategy is to accept with no further mitigation actions.</p>	Mitigation action(s)	FC Date	%	None identified at this time	N/A	N/A														
Mitigation action(s)	FC Date	%																						
None identified at this time	N/A	N/A																						
<b>Unassigned Risks</b> (Pending ownership of identified risks/opportunities)																								
No unassigned risks identified in the month of April.																								

## PROJECT BASELINE PERFORMANCE

### Current Month

(\$M)

WBS 011/RL-0011 Nuclear Matl Stab & Disp PFP	Budgeted Cost of Work Scheduled (BCWS)	Budgeted Cost of Work Performed (BCWP)	Actual Cost of Work Performed (ACWP)	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	0.8	4.0	10.5	3.2	416.7%	(6.5)	-162.9%

Numbers are rounded to the nearest \$0.1 million.

#### CM Schedule Variance: (+\$3.2M/+416.7%)

The current month positive schedule variance is primarily due to completion of historical BCWS associated with the 26-inch process vacuum removal, characterization, asbestos, drain lines, E3/E4 duct scope, trench grouting and drain line remediation in 234-5Z, as well as sample and process vacuum system removal in 291-Z. Because all work is historical, the current schedule variance will be favorable going forward. Additionally, performance of behind schedule demolition work scope associated with the demolition of 236-Z and 242-Z also contributes to this positive variance. This scope was to be performed in the third quarter of 2016; however, delays in getting 236-Z ready for demolition negatively impacted the start of both 236-Z and 242-Z demolition. Demolition of 236-Z is currently scheduled to complete on July 10, 2017. 242-Z demolition load-out was completed in April. The positive schedule variance is partially offset by additional scope that has been identified that requires removal of an additional ~10,000 feet of asbestos that was not visible on any plant drawings when the baseline was developed, further delaying the demolition-ready activities; recovery efforts from the contamination event associated with the PRF demolition activities, efforts to drain liquids in the ducting leading up to Filter Box 20, and the delay in the demobilization and installation of the cover cap following demolition of PFP. The demobilization work has been significantly impacted due to the delays in getting 236-Z, 242-Z, 291-Z, and 234-5Z ready for demolition and cannot occur until all buildings are demolished.

#### CM Cost Variance: (-\$6.5M/-162.9%)

The current month negative cost variance is primarily due to the delay in completion of the PFP Project to achieve slab on grade. The delay is causing needed extensions of both Minimum Safe, Maintenance, and D&D project management resources, without BCWS, to support the remaining D&D work scope until the facility becomes ready for demolition. In addition, asbestos abatement, E4 duct removal, and process vacuum removal are all requiring more time and additional resources to complete work. Additional resources (i.e., pipefitters, electricians, insulators, Radiological Control Technicians) have also been hired temporarily to attempt to recover schedule. Additional activities have been identified that require removal of an additional 10,000 feet of asbestos that was not visible on any plant drawings when the baseline was developed, further delaying the demolition ready activities. Due to delays in ready-for-demo activities, resources supporting waste processing activities that were planned to be completed in FY2016 are continuing to charge for support of waste loadout, processing, and shipping. Additional unplanned shipping materials (waste shipping containers TL-1800s, SLB2s, IP-1 bags, etc.) were also required to support waste loadout activities. Unplanned shipments of drums to Perma-Fix Northwest also contributed to the unfavorable variance. Continuation of quarterly stipend certification payments is also contributing to this variance. In addition, due to the historical (December 2015) radiological issues resulting in compensatory measures that have been implemented at PFP, additional radiological and industrial hygiene resources have been assigned to support the PFP Project until the slab on grade milestone is met.

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

WBS 011/ RL-0011 Nuclear Matl Stab & Disp PFP	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Variance at Completion (VAC)
Total	979.9	936.9	1,014.7	(43.1)	-4.4%	(77.8)	-8.3%	980.5	1,068.9	(88.4)

Numbers are rounded to the nearest \$0.1 million

### Contract-to-Date (CTD) Schedule Variance (-\$43.1M/-4.4%)

The CTD schedule variance is within threshold.

### CTD Cost Variance (-\$77.8M/-8.3%)

The negative CTD cost variance is primarily a result of prior year unrecoverable costs as well impacts to D&D work scope and extending Level-of-Effort and support services, consistent with delayed activities, in support of completing Tri-Party Agreement Milestone M-083-00A. In addition, unplanned costs to support implementation of efficiency initiatives at PFP (i.e., foaming and PremAire Breathing Air), and increased training as a result of assignment of new Health Physics Technicians, and D&D workers (as the result of Hanford Atomic Metal Trades Council (HAMTC) lamping process) to PFP have also contributed to this variance. Additional resources to recover schedule for asbestos removal activities and to cover the additional asbestos needing to be removed that was recently identified (10,000 feet). This is partially offset by utilization of fewer breathing air suits and hoses being used than originally planned for 242-Z entries as a result of fewer field work team members required to perform hands-on work in 242-Z because of the confined space and size of suits (three suits per day vs. five).

### Variance at Completion (-\$88.4M/-9.0%)

The Variance at Completion (VAC) unfavorable variance is reflective of previous inability to achieve 20 percent increased efficiency associated with time on respirator as assumed in the baseline plan. The Collective Bargaining Agreement was accepted and recognized efficiencies are continuing to be recognized with more time on mask and implementation of the value engineering initiatives associated with high-mass gloveboxes and grouting. Extended hotel loading costs as a result of delays in demolition ready and demolition activities caused by issues identified in the CTD schedule variance above are also driving the negative VAC. As a result of the wall removal and electrical isolations, it was discovered that approximately 10,000 feet of additional asbestos was between the walls that would need to be removed. This is a recognized risk (PFP-092-02) and has been incorporated into the VAC. Of note, CHPRC is working with RL to utilize contingency for the additional 10,000 feet of asbestos identified during walkdowns and inspections. Finally, increased utilization of overtime is being used to ready the 234-5Z facility for demolition by June 2017. This is partially offset by recognized efficiencies due to characterization data in the 234-5Z duct level allowing piping and ducting to be left in place for demolition. The variance at completion is reflective of PFP's current projected date to reach slab on grade no later than September 30, 2017.

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

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

WBS 011/RL-0011 Nuclear Matl Stab & Disp PFP	FY2017		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	134.5	126.4	8.1
Incremental Scope Pending Change Management	0.0	0.0	0.0
RL-0011 - Total	134.5	126.4	8.1

Numbers are rounded to the nearest \$0.1 million

### Funds/Variance Analysis

FY2017 expected funding for project breakdown structure (PBS) RL-0011 increased to \$134.5 million. The fiscal year spend forecast (FYSF) for April increased to \$126.4 million. The primary contributors to the increase are utilization of overtime, waste handling bags, and TL-1800 waste containers; consumable materials, extended hotel load, and subcontracts resulting from the delay in completion of the PFP Project to achieve slab on grade. The funds in this control point for estimate to complete (ETC) for regular scope are adequate to support current work. Recognized efficiencies will be necessary to support slab removal if RL direction to perform this work is received.

### Critical Path Schedule

The PFP Critical Path Schedule is a resource-driven float path in which the critical path starts with fixing the E4 ventilation system and preparing the filter rooms for demolition. Once complete, 234-5Z will be declared Cold & Dark and Ready for Demo. Demolition of 234-5Z will occur in the following sequence: 234-5ZA, Frontside, A-Labs, Backside Rooms/Plutonium Process Support Laboratories (PPSL), RMA Process Lines, RMC Process Lines, and the RADTU and Basement areas. Once the 234-5Z and 291-Z facilities have been demolished, the Tri-Party Agreement Milestone – M-083-00A - *PFP Facility Transition and Selection Disposition Activities* will have been met.

## MILESTONE STATUS

Tri-Party Agreement milestones represent significant events in project execution. RL Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The Performance Measurement Baseline (PMB) Annual Update, implemented in September 2013, and subsequent approved Baseline Change Requests (BCRs) define CHPRC planning with respect to Tri-Party Agreement milestones. The following table is a two-year look ahead of commitments and Tri-Party Agreement enforceable milestones.

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-083-00A	PFM Facility Transition and Selection Disposition Activities	09/30/17		8/31/17	During the month of April, the PFM project lost seven days on the schedule from the April month-end forecast completion date of the Tri-Party Agreement milestone for the PFM Project to reach slab on grade. This is a result of mitigation efforts associated with unexpected liquid in the ducting leading up to Filter Box 20. As the PFM Project continues to make progress on the behind schedule critical path work scope being performed, it is expected efficiencies will be recognized, evaluated, and implemented to recover some schedule delays.

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

Contract Section	Project	GFS/I	Status
<b>CONTRACT</b>			
J.12/C.2.2, C.2.3	PBS RL-0011, Plutonium Finishing Plant Closure Project	Offsite Transportation of Radioactive Material: RL provides equipment and government drivers to transport TRU materials outbound/inbound between the Hanford Site and Perma-Fix Northwest (PFNW) locations. RL is the authorized shipper and acts as signatory on the shipping papers, and ensures DOE Manual 460.2-1 is complied with. RL arranges for Commercial Motor Vehicle Safety Alliance (CVSA) level VI vehicle inspections and verifies that the government drivers meet the applicable Department of Transportation (DOT) Federal Motor Carrier Safety Regulations (49 CFR 382 and 383). RL also inspects the load securement to ensure compliance with DOT regulations and/or Transportation Safety Document (TSD) requirements.	Ongoing

### DOE ACTIONS / DECISIONS

None at this time.

# Section B

## Spent Nuclear Fuel Stabilization and Disposition (RL-0012)



R. M. Geimer  
Vice President for  
K Basin Operations and  
Plateau Remediation

April 2017  
CHPRC-2017-04, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

M. A. Wright  
Vice President for  
Project Technical  
Services

## PROJECT SUMMARY

Completed installation of sludge transfer equipment (Tri-Party Agreement Milestone M-016-177) and initiated KW Basin/Annex pre-operational acceptance testing (KPAT) (PM-12-2-17) on April 20, 2017.

Based upon discussions between RL and CHPRC Senior Management, the Sludge Treatment Project (STP) Team has modified the Field Execution Schedule (FES) to implement acceleration opportunities, which could facilitate the transfer of all sludge to T Plant in fiscal year (FY) 2018. On March 27, 2017, CHPRC formally submitted letter CHPRC-1701045 R1 - *Contract Number DE-AC06-08RL14788 – Change Proposal CP 012 PRC 1646, Revision 0, Sludge Removal Project Acceleration of 105K and T Plant* for RL approval. In order to meet the accelerated schedule, support from CHPRC and RL is required for the following assumptions:

- Significant overtime/weekend work is required to reduce the schedule duration.
- Approval of the integrated 105KW Documented Safety Analysis (DSA) must not affect project critical path. This integrated DSA/Technical Safety Requirement (TSR) includes as-built information from installation activities and, therefore, a subsequent “as-built” DSA/TSR submittal is not required.
- Sludge Removal Project (SRP) critical decision (CD)-4 approval must occur concurrently with commencing sludge retrieval operations.
- Approval of the T Plant safety documentation must be completed within 120 days of submittal.
- To demonstrate the current forecast date of Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) M-016-175, *Begin Sludge Removal From 105-KW Fuel Storage Basin*, the milestone has been disconnected from the risk analysis schedule margin. The current, non-risk adjusted forecast date to begin sludge removal is January 29, 2018.

The effort to retrieve and containerize the sludge pile in the KW Basin Center Bay discovered during debris mapping continued as resources allow.

Project breakdown structure (PBS) RL-0012 scope is 90 percent complete, and performance to date is positive, with a cumulative Schedule Performance Index (SPI) of 1.00 and a cumulative Cost Performance Index (CPI) of 1.05.

## EMS OBJECTIVES AND TARGET STATUS

None currently identified.

## TARGET ZERO PERFORMANCE

	CM Quantity	Rolling 12 Month	Comment
Dart Injuries	0	1	N/A
Recordable Injuries	0	1	N/A
First Aids	0	14	N/A
Near Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### 100K Operations

- The 100K Operations group continued maintaining facilities in a safe and compliant condition. Crews continued debris dose mapping, relocation activities in 105KW Basin, and performance of several monthly and quarterly routines during the period. In addition, support was provided to SRP for completion of Annex/In-Basin equipment installation punch list items.

### KW Basin Sludge Retrieval Capital Asset Project

- KW Annex/Basin Construction Project Technical Services (PTS)
  - o Continued executing Pre-KPAT Checkout work package in Basin/Annex and Control Room 20A. The purpose of this work package is to identify and correct minor anomalies prior to formal KPAT execution.
  - o Mobilized and installed the Ion Exchange Module (IXM) simulator system in the loading bay to support KPAT.
  - o Supported KPAT Field Activities, including system walk downs and establishing test boundaries.
  - o Completed installation of stack-monitoring equipment.
  - o Completed north tool shelf shielded cave extension.
  - o Completed touch-up painting in Annex, including application of line-up stripes for STS trailer on concrete approach and scale.
  - o Completed 75 percent of the building fire penetrations.
  - o Completed annual inspection and installed new tags on both Hydrolance Deployment Beam assemblies in the Basin.
  - o Completed anchoring of all sump grating.
  - o Continued working Radiation Monitoring System equipment cables, along with completing final terminations.
  - o Completed installation of the Supplemental Cooling system in the Annex Mechanical Room.
  - o All major punch list items associated with equipment installation were completed in April, and the SRP submitted documentation of completion of Tri-Party Agreement Milestone M016-16-177 to CHPRC Contracts for transmittal to RL.

- Continued delays in review and approval of the 105KW Facility DSA and TSR threaten to impact the start of integrated KPAT activities that transfer 105KW Basin water into the 105KW Annex. CHPRC personnel have initiated an update to the current 105KW Basin Final Safety Analysis Report (FSAR) and TSR, which will incorporate the use of basin water for the integrated phase of KPAT. Approval of this update will allow integrated KPAT under the existing safety basis. The new 105KW Facility DSA and TSR must still be approved with sufficient schedule margin to support training, procedure development, formal safety basis implementation, and completion of readiness preparations prior to the Operational Readiness Review (ORR) that will authorize Engineered Container Retrieval and Transfer System (ECRTS) operation.
- The Maintenance and Storage Facility (MASF) Pre-operational Acceptance Test (MPAT) Report was approved by the STP Joint Test Group on January 31, 2017. However, comment incorporation and issuance has been given a lower priority than development and approval of KPAT Specifications/Procedures. The MPAT Test Report is forecast to complete in May 2017.
- KPAT specifications and the KPAT test procedure that executes testing steps were approved in April, and KPAT was initiated on April 20, 2017, Completion of installation of sludge transfer equipment (M-016-177) and initiate KW Basin/Annex pre-operational acceptance test (KPAT) (PM-12-2-17).
- ECRTS Procurement: Sludge Transport & Storage Container (STSC) Vessels and Installation of STSC Instrumentation/Appurtenances continued through the fiscal month. The project is on track to complete the first 12 STSC Assemblies by September 30, 2017 – four of 12 STSC assemblies have been completed as of April month end. American Boiler Works (ABW) will also complete fabrication of the final 11 STSC Shells by September 30, 2017. Once the final 11 STSC shells are fabricated, they will be transported to HiLine for installation of associated instrumentation and appurtenances.
- Progress continues in development of the Operations and Maintenance Procedures supporting sludge removal and packaging operations.
- Readiness documentation development continued as planned.

### **T Plant Preparations**

- o Facilities Modification Package (FMPs) and specifications approved for Dock #2 removal and rebuild.
- o Completed Construction Acceptance Testing (CAT) on 4/20/17 and Acceptance Test Procedure (ATP) will complete in May.
- o The contractor was mobilized to commence removal and rebuild of Dock #2.

### **Other Support from PTS**

- Completed training on ECRTS Systems to Team 1.

## **MAJOR ISSUES**

### **T Plant Major Issues**

#### **Issue:**

CHPRC submitted the Solid Waste Operations Complex (SWOC) Master Documented Safety Analysis (MDSA)/TSR Revision 12 to RL for review and approval on November 28, 2016. On March 30, 2017, the RL Contracting Officer transmitted Letter 17-NSD-0018\_RL to CHPRC providing a RL Review Comment Record (RCR) against the SWOC MDSA/TSR Revision 12 requiring resolution of 35 pages of comments and a resubmittal. The schedule for receipt of a Safety Evaluation Report (SER) approving the

SWOC MDSA is currently beyond the schedule assumptions in the Performance Management Baseline (PMB) and is in jeopardy of negatively impacting the SRP Critical Path.

**Corrective Action:**

Continue working closely with the RL Nuclear Safety Division (NSD) Staff to resolve comments as expeditiously as possible. Expedite comment incorporation, CHPRC internal approval of the update MDSA/TSR Package, and RL approval of that package.

**Status:**

Comments are significant and resolution is under way. Extent of comment resolution results in re-analysis of numerous accidents contained in the MDSA. Updates of the MDSA are scheduled to be returned on April 28, 2017. The current schedule forecast for RL approval is June 13, 2017.

**Sludge Removal Project****Issue:**

The schedule for receipt and implementation of the integrated DSA/TSR for the 105KW Basin/Annex will no longer support the KPAT Integrated Test without pushing SRP critical path.

**Corrective Action:**

CHPRC will update the DSA/TSR to incorporate RL comments and retransmit the document set to RL for approval. Simultaneously, a revision to the existing FSAR will be developed and submitted to DOE RL for review/approval. This FSAR revision should enable execution of integrated KPAT without impacting SRP Critical Path.

**Status:**

CHPRC personnel updated the Integrated DSA/TSR to incorporate comments provided by the RL Safety Basis Review Team (SBRT) and retransmitted the updated files to RL on April 12, 2017, via CHPRC-1700081AR3 - *Transmittal of PRC-STP-00946, Revision 0, 105KW Facility Documented Safety Analysis, PRC-STP-00992, Revision 0, 105KW Facility Technical Safety Requirements, and HNF SD SNF-FHA-001, Revision 5, Fire Hazards Analysis for the 105KW Facility*. The current schedule forecast for RL approval is June 16, 2017. In order to prevent a schedule delay on the initiation of the integrated KPAT, CHPRC will submit a revision to the FSAR/TSR for the 105KW Basin that will address the control necessary to facilitate completion of that integrated test. The FSAR revision is forecast to be submitted to RL for approval on May 25, 2017.

## 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-0012/WBS-012</b>																											
<b>Explanation of major changes to the project monthly stoplight chart:</b> STP-067E was moved from a Realized Risk in RL-0012 to a Realized Risk in RL-0013.																											
<b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>																											
STP-072: Delayed STSC/ECRTS Procurement & Delivery	Material delivery and fabrication issues at ECRTS vendor facilities delay the delivery of the components to the Sludge Treatment Plant (STP), resulting in cost impacts and schedule delays. Additionally, discovery of additional components requiring fabrication result in deliveries that challenge project baseline schedules.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Very Likely (>90%) <b>Worst Case Impacts:</b> \$3,000K 120 days	 	<b>Risk Event:</b> Event 1: In order to establish a reliable Sludge Transportation System Cask configuration capable of meeting the project's needs, several ports must be reconfigured to ensure reliable leak-tight integrity. This discovery was outside of baseline material procurement plans.  <table border="1"> <thead> <tr> <th>Risk recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Event 1 - Finalize Field FES activities dates consistent with change orders</td> <td>12/7/16</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Complete Procurement/Fabrication</td> <td>12/7/16</td> <td>05/31/17</td> <td>90</td> </tr> <tr> <td>Deliver equipment to 100K Area</td> <td>12/7/16</td> <td>07/15/17</td> <td>90</td> </tr> <tr> <td>Replace STS Cask Seals</td> <td>12/7/16</td> <td>07/31/17</td> <td>0</td> </tr> <tr> <td>Conduct post repair leak test.</td> <td>12/7/17</td> <td>08/01/17</td> <td>0</td> </tr> </tbody> </table> <b>Recovery Action Assessment:</b> Event 1: Site Visit with Leak Test Specialists forced redesign of Leak Test Tool. Based on BCR-012C-17-009R0 and the MR draw associated with it, additional parts are on order and a revised fabrication schedule was generated. Cask seal repair planned prior to 7/3/17. Proof test on new seal will likely be delayed until fabrication of Cask Leak Test Tool and qualification by Nondestructive examination (NDE) Contractor.	Risk recovery action(s)	Risk Date	FC Date	%	Event 1 - Finalize Field FES activities dates consistent with change orders	12/7/16	Complete	100	Complete Procurement/Fabrication	12/7/16	05/31/17	90	Deliver equipment to 100K Area	12/7/16	07/15/17	90	Replace STS Cask Seals	12/7/16	07/31/17	0	Conduct post repair leak test.	12/7/17	08/01/17	0
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Unmitigated Risk Impacts	Assessment		Comments																				
	Month	Trend																					
<b>RL-0012/WBS-012</b>																							
STP-067A Safety Classification of SSCs - DSA/TSR  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$3,000K 120 days			<b>Risk Event:</b> CHPRC sent the DSA and TSR to RL for review and approval on October 20, 2016, in letter CHPRC-1604692. RL rejected this submittal via correspondence 1700081A/17-NSD-0006. CHPRC resubmitted the DSA/TSR via CHPRC-1700081A R3. The original project baseline included 120 calendar days for RL to approve the safety basis document; however, it has now been 186 days (as of 4/23/17) since the original submittal with formal approval still not imminent.																				
			<table border="1"> <thead> <tr> <th>Risk recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Solicit senior RL &amp; CHPRC involvement in resolving deficiencies.</td> <td>1/28/17</td> <td>As Needed</td> <td>N/A</td> </tr> <tr> <td>Conduct interface meetings between RL Safety Basis Review Team (SBRT) &amp; CHPRC Nuclear Safety personnel to negotiate a product that is acceptable to RL.</td> <td>1/28/17</td> <td>As Required</td> <td>55</td> </tr> <tr> <td>CHPRC to appoint an independent facilitator to assist in resolution of RL comments.</td> <td>1/28/17</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Prepare a change order to obtain Management Reserve for realized risk.</td> <td>1/28/17</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table>	Risk recovery action(s)	Risk Date	FC Date	%	Solicit senior RL & CHPRC involvement in resolving deficiencies.	1/28/17	As Needed	N/A	Conduct interface meetings between RL Safety Basis Review Team (SBRT) & CHPRC Nuclear Safety personnel to negotiate a product that is acceptable to RL.	1/28/17	As Required	55	CHPRC to appoint an independent facilitator to assist in resolution of RL comments.	1/28/17	Complete	100	Prepare a change order to obtain Management Reserve for realized risk.	1/28/17	Complete	100
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			Prepare a change order to obtain Management Reserve for realized risk.	1/28/17	Complete	100																	
<b>Recovery Action Assessment:</b> RL & CHPRC Senior Management have met multiple times in an attempt to resolve differences on the DSA/TSR Submittal. All DSA/TSR comments have been dispositioned as of 2/17/17. Obtaining RL concurrence on comment resolution is now forecast to complete 5/18/17. CHPRC and RL agreed to commission an independent facilitator (who arrived 3/9/17) to assist in resolving RL comments against the DSA/TSR Submittal. Efforts continue to produce a product acceptable to the SBRT.																							
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)																							
No critical risks identified in the month of April.																							
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)																							
<b>FY2017 Risk Triggers</b> (Risk could be realized in FY2017)																							
STP-103: K Basin Pre-Operational Acceptance Testing (KPAT) & ECRTS Startup  The ECRTS equipment does not operate as expected, requiring increased engineering, startup, operations, and construction Firm Fixed Price contractor support; as well as equipment replacement, procurement, and retesting. Realization of this risk would also require additional training, procedure revision, and design modifications as a result of construction testing and/or Lines of Inquiry for Readiness Review resulting in cost impacts and schedule delays. <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$4.5 million, 90 days			<b>Risk Trigger:</b> 1) The ECRTS equipment does not operate as expected. 2) Unexpected attrition of critical testing personnel.																				
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Closely monitor employee satisfaction and consider employee incentive to retain key test personnel.	As Needed	N/A																					
<b>Mitigation Assessment:</b> KPAT Testing is in progress. No significant equipment failures to date.																							

Unmitigated Risk Impacts	Assessment		Comments									
	Month	Trend										
<b>RL-0012/WBS-012</b>												
<p>STP-018-O: STP Operational Upset or Spill - During first STSC</p> <p>An operational upset or spill results in a work shutdown at K Basins, resulting in schedule delays.  <b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Medium (26% to 74%)  <b>Worst Case Impacts:</b> \$1.3 million, 96 days</p>	●	↔	<p><b>FY2018 Risk Triggers:</b>                      1) An operational upset or spill results in work shutdown at K Basin. This risk will commence in FY2018 and continue throughout the project lifecycle until the sludge is removed from 105KW Basin.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Conduct rigorous startup testing following system installation at the 105KW Basin and Annex.</td> <td>10/11/17</td> <td>0</td> </tr> <tr> <td>Conduct testing and training at MASF and develop procedures that use the information and knowledge gained during the activity for use at the KW Basin.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b>                      No major changes in the month of April.                      Forecasted mitigation dates are consistent with overall STP critical path schedule. Training and procedure development will continue into FY2018. It will complete prior to completion of management self-assessment affidavits in December 2017.</p>	Mitigation action(s)	FC Date	%	Conduct rigorous startup testing following system installation at the 105KW Basin and Annex.	10/11/17	0	Conduct testing and training at MASF and develop procedures that use the information and knowledge gained during the activity for use at the KW Basin.	Ongoing	N/A
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<p>STP-073-C: Processing Efficiency - Retrieval &amp; Shipping</p> <p>The realized processing efficiency associated with sludge retrieval and shipping operations does not match baseline plan.  <b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Low (10% to 25%)  <b>Worst Case Impacts:</b> \$0K, 8 days</p>	●	↔	<p><b>FY2018 Risk Triggers:</b>                      1) Actual processing efficiency associated with sludge retrieval and shipping operations does not match baseline assumptions. This risk will commence in FY2018, beginning with operations campaign.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b>                      No major changes in the month of April.                      Operations personnel were given training on the process system equipment and will continue to participate in training activities through production system installation at 100K. No foreseeable impacts in the near future and no alternative course of actions are needed at this time.</p>	Mitigation action(s)	FC Date	%	None identified at this time.	N/A	N/A			
Mitigation action(s)	FC Date	%										
None identified at this time.	N/A	N/A										
<b>Unassigned Risks (Pending ownership of identified threats/opportunities)</b>												
<p>CHPRC proposed five risks that are outside of CHPRC's ability to manage and, as such, should be re-assigned to RL (STP-011D, STP-018, STP-073, STP-073-A, and STP-073-B). The proposal was not accepted by RL, stating, "the opportunities and threats appear to be under the control of CHPRC to manage." CHPRC submitted letter CHPRC-1602146 R1 on August 30, 2016, in response to RL's rejection letter. On 3/14/17, CHPRC received Correspondence No. 1701045 providing direction to accelerate the capital portion of the SRP. The risks listed, however, are for the non-capital scope. If contract direction is given to accommodate the acceleration opportunities to the SRP non-capital scope and the transfer of all sludge to T Plant is incorporated into FY2018, then CHPRC would re-assume ownership of these risks.</p>												

## PROJECT BASELINE PERFORMANCE

### Current Month

(\$M)

RL-0012 Spent Nuclear Fuel Stabilization and Disposition	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	6.6	4.8	6.0	(1.8)	-27.8%	(1.2)	-25.8%

Numbers are rounded to the nearest \$0.1 million

#### CM Schedule Performance (-\$1.8M/-27.8%)

The current month negative schedule variance is due to work completed earlier in the fiscal year, which was planned for the current period. This included equipment installation activities and fabrication of the fill tube/float assemblies.

#### CM Cost Performance (-\$1.2M/-25.8%)

The current month cost variance is due to negotiation of change orders on firm fixed-price contracts for equipment installation. These change orders were required to support schedule acceleration and final agreement on scope for construction acceptance testing (CAT).

## Contract-to-Date

(\$M)

RL-0012 Spent Nuclear Fuel Stabilization and Disposition	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Variance at Completion (VAC)
Total	667.5	668.4	639.5	0.9	0.1%	28.9	4.3%	740.6	707.0	33.6

Numbers are rounded to the nearest \$0.1 million

#### CTD Schedule Performance (+\$0.9M/+0.1%)

The variance is within reporting thresholds.

#### CTD Cost Performance (+\$28.9M/+4.3%)

The variance is within reporting thresholds.

#### Variance at Completion (+\$33.6M/+4.5%)

The variance is within reporting thresholds.

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

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

RL-0012 Spent Nuclear Fuel Stabilization and Disposition	FY2017		Variance
	Projected Funding	Spending Forecast	
Expense - Spending Forecast	32.4	31.0	1.4
Incremental Scope Pending Change Management	0.0	0.0	(0.0)
Expense - Subtotal	32.4	31.0	1.4
Line Item (LI)	65.0	45.6	19.4
Incremental Scope Pending Change Management	0.0	0.0	0.0
LI -Subtotal	65.0	45.6	19.4
<b>RL-0012 – Total</b>	<b>97.4</b>	<b>76.6</b>	<b>20.8</b>

Numbers are rounded to the nearest \$0.1 million.

### Funds/Variance Analysis

FY2017 projected funding for PBS RL-0012 is \$97.4 million. Positive variance of \$1.4 million in expense funding is the result of reclassification of Garnet Filter Media Removal and Sand Filter Media Removal scopes being transferred from PBS RL-0012 to PBS RL-0041, savings forecast for sample maintenance from Pacific Northwest National Laboratory (PNNL), and savings forecast for project management scope – work is being performed with reduced staff. Positive variance in line item (LI) for FY2017 is due to receipt of entire LI funding in current year. Unused funding will be carried over to support work planned for FY2018.

### Critical Path Schedule

The critical path flows through KPAT. Following a successful Operational Readiness Review, RL will provide Authorization to Commence Retrieval Operations in parallel with the DOE HQ review/approval of CD-4. Completing retrieval operations, including the filling of STSCs with sludge and transferring them to T Plant, to complete Tri-Party Agreement Milestone M-016-176, *Complete Sludge Removal from 105-KW Fuels Storage Basin*, is outside the current contract period in FY2019. However, the Sludge Treatment Project (STP) Team has modified the Field Execution Schedule (FES) to implement acceleration opportunities, which could facilitate the transfer of all sludge to T Plant in FY2018.

## MILESTONE STATUS

Tri-Party Agreement milestones represent significant events in project execution. RL Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The Performance Measurement Baseline (PMB) Annual Update, implemented in September 2013, and subsequent approved Baseline Change Request (BCRs) define CHPRC planning with respect to Tri-Party Agreement milestones. The following table is the Tri-Party Agreement milestones within the CHPRC contract period (September 30, 2018).

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-016-175	Begin Sludge Removal from 105KW Fuel Storage Basin.	9/30/2018		1/29/2018	The forecast date does not include schedule margin from the project's risk analysis.
M-016-177	Complete installation of sludge transfer equipment in KW Reactor facilities	9/30/2017		4/19/2017	Complete

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

None currently identified.

## DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	RL Due Date
RL Review & Comment on Emergency Planning Hazard Assessment (EPHA)	5/24/17	7/12/17
RL Issue SER for KW Facility DSA/TSR	6/10/17	6/16/17
RL Concur on KW Facility DSA/TSR Comment Resolution	2/17/17 (A)	5/25/17
RL Prepare KW Facility DSA/TSR	5/26/17	6/06/17
RL Review KPAT FSAR / TSR Change	5/31/17	6/29/17
RL SRB Review of KW Facility DSA/TSR	6/09/17	6/09/17
RL Distribute the Approved POA	5/22/17	5/23/17
RL IP Issued	5/22/17	11/20/17
RL POA Issued and Distributed	5/22/17	6/12/17
RL Approve / Comment Plan of Action (POA) - K-Basins	5/25/17	6/12/17
RL Final Approval of POA - K-Basins	6/17/17	6/23/17
RL Approve OTRS	5/26/17	7/19/17

# Section C

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



C. J. Simiele  
Vice President for  
Waste and Fuels  
Management Project

April 2017  
CHPRC-2017-04, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

M. A. Wright  
Vice President for  
Project Technical  
Services



## PROJECT SUMMARY

During the April reporting period, March 27 - April 23, 2017, Waste and Fuels Management Project (W&FMP) maintained facilities in a safe and compliant condition. Overall, the project is delivering planned efficiencies, but continues to be impacted by emerging work and realized risks.

This month:

- Waste Encapsulation and Storage Facility (WESF) Stabilization and Ventilation Project (W-130) completed grouting of six hot cells, an airlock, legacy ventilation duct work, and a filter pit. Grouting is 100 percent complete. W-130 also completed demobilization of equipment and containments inside G Cell and grout washout pit.
- Management of Cesium and Strontium Capsule (MCSC) Project (W-135) conducted a WESF Modifications and Capsule Storage Area (CSA) Conceptual Design workshop. NAC International provided the status and conducted an informal review of the conceptual design of the Cask Storage System (CSS).
- The project completed a comparative analysis draft of Tri-Party Agreement milestone M-091-52 Alternative Evaluation Document, as well as a draft assessment integrating the D-10 Tank with Sludge Phase 2 treatment.

## EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
17-EMS-WFMP-OB1-T1	Implement the requirement to provide a "full printed name" in CHPRC Waste & Fuels controlled Resource Conservation and Recovery Act of 1976 (RCRA) inspection work packages and procedures.	<ul style="list-style-type: none"> <li>• Review W&amp;FMP inspection procedures, checklists, and work packages/PMs, which implement RCRA inspection criteria for direction to use the full printed name.</li> <li>• Initiate modifications to necessary procedures, checklists, and work packages/PMs, which implement RCRA inspection criteria to include the full printed name.</li> </ul>	5/31/17  9/28/17	45%
17-EMS-WFMP-OB2-T1	Implement 40 CFR 265 regulatory requirements identified by the Compliance Matrix for T Plant and Central Waste Complex at the project level.	<ul style="list-style-type: none"> <li>• Review the applicable 40 CFR 265 requirements to verify the implementing mechanisms and methods, and to identify compliance gaps.</li> <li>• Resolve identified gaps by initiating modifications to procedures into the PPS system.</li> </ul>	5/31/17  9/30/17	65%
17-EMS-WFMP-OB3-T1	Ensure W&FMP procedure inspection forms, checklists, and work packages, which implement RCRA inspection requirements are capturing the RCRA inspection requirements and are appropriately located in the facility operating record.	<ul style="list-style-type: none"> <li>• Review all inspection procedures, checklists, and work packages to identify, which are used to meet RCRA inspection requirements.</li> <li>• Initiate updates into PPS and/or JCS systems to ensure RCRA inspection requirements are met and documentation is appropriately placed into the facility operating record.</li> </ul>	5/31/17  9/30/17	45%

## TARGET ZERO PERFORMANCE

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	3	
Total Recordable Injuries	0	5	
First Aid Cases	1	*24	<ul style="list-style-type: none"> <li>4/26/2017: Employee tripped and fell forward to the floor, spraining the left finger. Employee was taken to HPMC for evaluation and returned to work with no restrictions (24440).</li> </ul> <p>*Two First Aid cases; PTS in support of RL-0013.</p>
Near Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### 13.01 Project Management

- o Performed/Completed:
  - The project initiated detailed planning for fiscal year 2018 estimate to complete as well as FY2019-FY2020. In addition, scope and estimates are in development for FY2021-FY2022.
  - Operations Assurance performed a causal analysis in support of the Solid Waste Operations Complex (SWOC) Master Documented Safety Analysis (MDSA) update.

### 13.02 Capsule Storage & Disposition

- o Performed/completed:
  - Disconnect, breakdown, removal and disposal of MO-029 triple-wide trailer set.
- o Surveillances/Preventative Maintenance (PM):
  - 37 PM work packages.

### Waste Encapsulation and Storage Facility (WESF) Stabilization and Ventilation Project (W-130):

- o Performed/completed:
  - Grouting of six hot cells, an airlock, legacy ventilation duct work, and filter pit. Grouting is 100 percent completed.
  - Demobilization of equipment and containments inside G Cell and grout washout pit.
  - Facility management plan approval and release for installation of new temporary truckport rollup door.
  - WESF Closure Plan: CHPRC prepared a permit modification request to address movement of a core drilling location that did not involve a Dangerous Waste Management Unit, as well as the expected duration of grouting. Provided the draft permit modification request to RL and Ecology for informal review.

### 13.03 Canister Storage Building (CSB)

- o Performed/completed:

- Sampling proficiency demonstration and recovery and storage of Multi-Canister Overpack (MCO) H-017.
- Dry run and walk through with new staff on sampling MCO H-017.
- As Low As Reasonably Achievable Control Technology (ALARACT) for CSB ventilation outage: Transmitted the draft ALARACT to RL for submittal to Washington state Department of Health.
- o Surveillances/PMs:
  - 23 PM packages.
- 13.06 Transuranic (TRU) Repackaging**
  - o Performed/completed:
    - o M-091-52
      - Draft assessment of D-10 Tank integration with Sludge Phase 2 treatment.
      - Draft analysis for M-091-52 alternative evaluation document.
    - o Repackaging Completed:
      - Six Standard Waste Boxes (SWB)s containing legacy TRU Mixed (TRUM) waste of 22.1m3 toward Tri-Party Agreement milestone M-091-47D.
- 13.07 Waste Receiving and Processing (WRAP)**
  - o Surveillances/PMs:
    - 125 surveillances.
    - 10 PM packages.
  - o Shipments Shipped:
    - One 1800TL from WRAP to Perma-Fix Northwest (PFNW) in one shipment (Plutonium Finishing Plant (PFP) waste temporarily stored in WRAP).
- 13.08 T Plant**
  - o Performed/completed:
    - Hazard Review Board approval documents and work package for acceptance test plan.
    - Preparation and approval of Evaluation of Safety Situation for submittal to RL.
    - Enhanced Work Planning for Dock 2 removal.
    - Kickoff meeting to distribute and discuss Readiness Assessment (RA) affidavit details to all responsible managers in preparation for sludge receipt RA.
    - Pipe gallery painting.
  - o Surveillances/PMs:
    - 387 surveillances.
    - 33 PM packages.
- Sludge Receipt**
  - o Performed/completed:
    - Installation of nitrogen manifold in Tunnel.
- 13.09 Central Waste Complex (CWC) and Low-level burial ground (LLBG)**
  - o Surveillances/PMs:
    - 320 surveillances.
    - 37 PM packages.
  - o Shipments Received:
    - Six SWBs from PFP to CWC in two shipments.
    - Eight SWBs from PFNW into CWC in three shipments.
- 13.12 Integrated Disposal Facility (IDF)**
  - o Performed/completed:
    - Revision of disposal evaluation for Direct Feed Low Activity Waste cold commissioning waste glass for comment incorporation.
    - Technical evaluation of contract proposal for the development of performance assessment supporting documents.

**13.15 TRU Disposition**

- o Performed/completed:
  - Submittal of finalized Annual Transuranic Waste Inventory Report to Los Alamos National Laboratory.
  - Initiated new acceptable knowledge procedure for CHPRC's TRU Program.

**13.16 Off Site Spent Nuclear Fuel Disposition**

- o Maintained coordination for offsite Spent Nuclear Fuel Disposition.

**13.21 Mixed Waste Disposal Trenches (MWT)**

- o Shipments Received:
  - Eight SWBs from PFNW to MWT in two shipments.
- o Surveillances/PMs:
  - 134 surveillances.

**13.24 MCSC Project**

- Completed WESF Modifications and CSA Conceptual Design workshop.
- The Functional Design Criteria Documents are being updated to support the CSS, WESF Modifications, and CSA conceptual design reviews.

**13.25 Capsules Interim Storage Operations**

- NAC International provided status and conducted an informal review of the conceptual design of the Cask Storage System, with participation from RL and CHPRC functional organizations.
- Capsule Interim Storage: Submitted the Notice of Intent (NOI) for construction of the CSA to RL for transmittal to Ecology.

**Project Technical Services (PTS) Support****Operations Program**

## Emergency Preparedness (EP)

- o Performed/completed:
  - Emergency action level/Emergency Planning Hazards Assessment Annual review for 200 Area interim storage area pad-FF at CSB.

**Project Delivery**

## WESF W-130 Stabilization

- o Performed/completed:
  - Grout pump operations.
  - Commenced contaminated demobilization.

## MO-029 Trailer at WSCF

- o Performed/completed:
  - Existing trailers transported and disposed at the Environmental Restoration Disposal Facility.

**MAJOR ISSUES****Issue:**

Contract authorization needed to accelerate FY2018 contract scope for the repackaging of TRU waste in order to meet PM-13-2-17 – Repackage 280 m<sup>3</sup> of TRU Mixed (TRUM) waste or Mixed Low Level Waste (MLLW) during FY2017.

**Corrective Action:**

Work with DOE to secure authorization within projected funding limitations.

**Status:**

Request submitted informally to DOE-RL in December 2016. Authorization received May 1, 2017. This will no longer be reported as a major issue moving forward.

**Issue:**

The Washington Department of Ecology issued Findings in Inspection Reports for the LLBG Trenches 31-34 and CWC regarding major risk labeling. The findings direct RL and CHPRC to label the containers with the major risks of the dangerous waste contents. CHPRC uses the U.S. Department of Transportation (DOT) Hazard Class labeling system (which includes the use of radiological labels) to comply with the regulatory requirement.

**Corrective Action:**

Work with RL to obtain agreement from Ecology that CHPRC may use the DOT Hazard Class labeling system, as this complies with the regulatory requirement for a “system in use that performs the function in accordance with local, state, or federal regulations.”

**Status:**

CHPRC and RL met with Ecology inspectors regarding this item, and the parties agreed to elevate the issue to management for resolution.

**Issue:**

Potential delayed approval of MDSA Revision 12. This delay will impact T Plant’s ability to complete Readiness Assessment activities in preparation for accelerated receipt of sludge.

**Corrective Action:**

Formal comments received from RL on April 2, 2017; CHPRC is developing comment incorporation and resolution of comments.

**Status:**

Comments are significant and resolution is under way. Extent of comment resolution results in re-analysis of numerous accidents contained in the MDSA. Updates of the MDSA are scheduled to be returned on April 28, 2017.

**Issue:**

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

**Corrective Action:**

Significant risk remains. TRU Disposition activities would prepare the contents of these containers in a configuration suitable for eventual disposal at the Waste Isolation Pilot Plant. This configuration would also mitigate/eliminate the risk and additional cost for long-term management of these containers.

**Status:**

Continuing to use the best demonstrated available technology to provide adequate configuration and minimize the potential for contamination spread during the long-term storage (i.e., protecting boxes with tarps or protective shoring; over packing drums). Streamlining and consolidating existing container management procedures and shipping to PFNW for repackaging as funding and RL authorizations permit.

**Issue:**

Mission Support Alliance, LLC (MSA) Cross-Connection Control Program performed a Health Hazard Level Re-Evaluation following the guidance listed in Washington Administrative Code (WAC) 246-290-490, and internal MSA Cross-Connection Control procedures. As a result, 225-B (WESF) Health Hazard Level was changed from high to severe, requiring service connections to have cross-connection installed.

**Corrective Action:**

The WAC requires corrective action to be accomplished “within 90 days of the purveyor notifying the consumer ...” or, “In accordance with an alternate schedule acceptable to the purveyor.” MSA has worked with affected facilities and RL to develop corrective actions that minimize impacts to ongoing cleanup milestones.

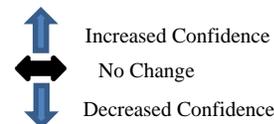
**Status:**

RL provided direction to MSA to remedy the majority of the issue with a modification at the source by MSA versus modifications at each facility. Description and preliminary schedule for WESF potable water facility modifications required, unless RL approves an alternate (no action) approach transmitted on July 6, 2016 (CHPRC-1602928). A meeting was held with RL on January 12, 2017, to discuss the contractual direction necessary to proceed. Awaiting RL direction for potable water system facility modifications.

### 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 recovery actions were completed for WSD-W130-17 and WSD-W130-2. Therefore, they were moved from the “Realized Risks” section to the “High Risk Threat” section in this report. WSD-143 was also added as a Realized Risk for the month of April.																		
<b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>																		
WSD-125: Multi-Year Pause in Waste Processing Results in Unexpected Container Integrity Issues	A pause in waste processing results in an unexpected container degradation within SWOC (excluding TRU Retrieval activities) and require additional resources to respond. <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$5 million, 0 day			<b>Risk Event:</b> In November 2011, degraded containers were discovered in CWC. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Risk recovery action(s)</th> <th style="text-align: center;">Risk Date</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>Perform daily/weekly waste container surveillances to identify container abnormalities.</td> <td rowspan="3" style="text-align: center; vertical-align: middle;">11/01/11</td> <td style="text-align: center;">Ongoing</td> <td style="text-align: center;">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 style="text-align: center;">Ongoing</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>Process waste packages at a rate funded by RL.</td> <td style="text-align: center;">Ongoing</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table> <b>Recovery Action Assessment:</b> Project continued to perform container surveillances in the month of April to identify container and container cover abnormalities. The overpack for Storage box 75DMA16F3 was complete on 4/17/17. The Project will initiate development of work package for subsequent move into 2403WD. The remaining containers will continue to require surveillance and continued enhanced monitoring.	Risk recovery action(s)	Risk Date	FC Date	%	Perform daily/weekly waste container surveillances to identify container abnormalities.	11/01/11	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
Risk recovery action(s)	Risk Date	FC Date	%															
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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															

Risk Title	Unmitigated Risk Impacts	Assessment		Comments																
		Month	Trend																	
<b>RL-0013/WBS-013</b>																				
WSD-143 Safety Classification of SSCs - MDSA Rev. 12	RL approval of the MDSA Rev. 12 takes longer than the negotiated assumption planned for in the baseline and/or the safety classification of Systems, Structures, & Components (SSCs) is more conservative than the safety analysis dictates resulting in cost impacts and schedule delays.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$600K 120 days			<b>Risk Event:</b> On 11/28/16, CHPRC submitted letter CHPRC-1604566AR1 - MDSA, REV. 12, the TSR REV. 12, the <i>T PLANT FHA</i> , and the SWOC FHA, Rev. 6. While the baseline plan assumed that RL would review and approve this submittal within 120 calendar days (or by 3/30/17), RL senior management had informally agreed to accelerate review/approval of this submittal within 60 days to facilitate moving all 100K Sludge from the 105KW Basin to T Plant by 9/30/18. RL transmitted letter 17-NSD-0018_RL to CHPRC on 3/30/17, providing a 35-page Review Comment Record (RCR), with comments that must be resolved prior to resubmitting the updated MDSA & TSR. The target date for resubmitting the updated MDSA/TSR is 4/27/17.																
				<table border="1"> <thead> <tr> <th>Risk recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Obtain written comments from RL Nuclear Safety Division personnel against the submittal described above.</td> <td>2/19/17</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Conduct interface meetings between RL &amp; CHPRC senior management to ensure MDSA approval challenges are discussed and resolved, if possible, prior to any action that delays approval of the MDSA.</td> <td>2/19/17</td> <td>As Needed</td> <td>N/A</td> </tr> <tr> <td>Resolve RL NSD Comments (17-NSD-0018_RL) and solicit RL NSD concurrence</td> <td>2/19/17</td> <td>5/18/2017</td> <td>0</td> </tr> </tbody> </table>	Risk recovery action(s)	Risk Date	FC Date	%	Obtain written comments from RL Nuclear Safety Division personnel against the submittal described above.	2/19/17	Complete	100	Conduct interface meetings between RL & CHPRC senior management to ensure MDSA approval challenges are discussed and resolved, if possible, prior to any action that delays approval of the MDSA.	2/19/17	As Needed	N/A	Resolve RL NSD Comments (17-NSD-0018_RL) and solicit RL NSD concurrence	2/19/17	5/18/2017	0
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Resolve RL NSD Comments (17-NSD-0018_RL) and solicit RL NSD concurrence	2/19/17	5/18/2017	0																	
<b>Recovery Action Assessment:</b> CHPRC received letter 17-NSD-0018_RL on 3/30/17 providing 35 pages of comments associated with the MDSA/TSR R12 submittal. CHPRC is currently working to resolve these comments and projects resubmittal of a revised document on 4/27/17. Once RL issues a Safety Evaluation Report, CHPRC will proceed with implementation activities.																				
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)																				
<b>Lifecycle Risk Triggers</b> (Risk could be realized at any point of the project)																				
WSD-097: Major Equipment Failure - T-Plant	T Plant suffers a major equipment failure (crane, primary power supply, etc.), resulting in cost impacts and schedule delays.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$750K, 96 days			<b>Risk Trigger Metric:</b> During planned facility operations activities, a suspect system component is discovered that requires attention, or an unexpected malfunction results in this risk being realized. This risk will continue throughout the CHPRC (September 30, 2018).																
				<table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Identify and procure spare parts for T Plant crane</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table>	Mitigation action(s)	FC Date	%	Identify and procure spare parts for T Plant crane	Ongoing	N/A										
Mitigation action(s)	FC Date	%																		
Identify and procure spare parts for T Plant crane	Ongoing	N/A																		
<b>Mitigation Assessment:</b> No changes in the month of April. The project has put into place mitigating strategies (i.e., aggressive S&M activities) to help reduce this risk. The project is also working toward identifying and procuring spare parts for the T Plant Crane to further reduce the risk. The crane is currently operational, however, an adequate spare parts inventory is needed. The project has completed the crane bridge drive bearing repairs discovered during preventive maintenance.																				

Risk Title	Unmitigated Risk Impacts	Assessment		Comments		
		Month	Trend			
<b>RL-0013/WBS-013</b>						
WSD-019: MLLW & TRU Treatment Impacts	Mixed low-level waste (MLLW) and TRU treatment capacity/capability does not meet Hanford needs or treatment does not occur as scheduled, resulting in cost impacts. <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Medium (26% to 74 %) <b>Worst Case Impacts:</b> \$2.5 million, 0 day			<b>Risk Trigger Metric:</b> Will continue throughout contract (September 30, 2018).		
				<b>Mitigation action(s)</b>	<b>FC Date</b>	<b>%</b>
				Establish multiple treatment contracts, or obtain additional capability, for the processing of MLLW and TRU, with terms extending to the end of the current CHPRC contract with RL (i.e., September 30, 2018).	Ongoing	N/A
				Continue to work with RL to fund the processing of TRU/M waste at PFNW at a rate that keeps them viable (i.e., keeps the doors open).	Ongoing	N/A
				Evaluate the benefit(s) associated with an increase to the PFNW Pu possession limit. Their current limit is 200 grams of total Pu. Increasing the limit may allow additional quantities of TRUM waste to be shipped to PFNW for processing. This evaluation will take place in conjunction with the M-091-52 engineering study.	09/30/17	10
				Negotiations with RL are ongoing to seek authorization for additional shipments of M-91 Legacy TRUM to PFNW. This would meet the objectives for the Permax minimum optimal processing volume as identified in the Optimization Study provided to RL in December 2016.	Complete	100
				<p><b>Mitigation Assessment:</b></p> <p>1) MLLW: Two contracts are in place for offsite commercial waste treatment, which provided sufficient capability/capacity to meet current MLLW treatment needs through the end of the CHPRC contract term. However, one of the contracts was recently restricted due to the closure of a Perma-Fix treatment facility in Tennessee (M&amp;EC). Additional capability will now need to be obtained to meet all anticipated MLLW treatment needs.</p> <p>TRU/M: Only PFNW has current capability to process TRU/M waste. This is due solely to the practical limitations imposed by the need to ship the TRU/M waste via road-closure; therefore, additional commercial providers cannot be obtained.</p> <p>130m3 of Legacy M -91 TRUM waste was authorized by DOE at the start of FY2017, and has now been shipped and completed. The project is currently awaiting approval for authorization for additional shipments. This additional authorization will allow for the shipment of four oversized TRU waste packages from CWC to PFNW, which will cover PFNW's minimum optimal processing volumes, along with the projected PFP oversized TRU waste components that are forecasted to be shipped to PFNW this fiscal year.</p>		
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)						
<b>Lifecycle Risk Triggers</b> (Risk could be realized at any point of the project)						
WSD-137: OPP: Planned Efficiencies	Funding profile for the contract period are achieved through efficiencies. <b>Risk Handling Strategy:</b> Exploit  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$32 million, 0 day			<b>Risk Trigger Metric:</b> Will continue throughout project lifecycle (September 30, 2018).		
				<b>Opportunity action(s)</b>	<b>FC Date</b>	<b>%</b>
				<p><b>Opportunity Assessment:</b></p> <p>The project has realized efficiencies of approximately \$74.5 million to date. Future efficiencies are being offset due to discrete project overruns, increased regulatory scrutiny, maintenance lessons learned across CHPRC DOE Complex, and heightened compliance postures. Also note that the EAC currently contains work identified as changed scope for which contract changes would be issued.</p>		
<p style="text-align: right;">C8 CHPRC-2017-04, Rev. 0 · RL-0013</p>						

Risk Title	Unmitigated Risk Impacts	Assessment		Comments												
		Month	Trend													
<b>RL-0013/WBS-013</b>																
WSD-140: As-Found-Unknown Conditions - T Plant	<p>Unknowns, as found or emergent conditions impact the operability of the T Plant facility.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Very Likely (&gt;90%)</p> <p><b>Worst Case Impacts:</b> \$990K, 0 days</p>			<p><b>Risk Trigger Metric:</b> This risk has been triggered due to current condition of 221-T Dock #2.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Repairs to 221-T Dock #2 are needed in support of sludge receipt</td> <td>06/05/17</td> <td>0</td> </tr> <tr> <td>Submittal of a BCR to break out the planning package planned for May.</td> <td>5/15/17</td> <td>80</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> No changes in the month of April. Deterioration of the steel decking and steel support structure for 221-T Dock #2 has required that the dock be taken out of service. A new loading dock is necessary as one of the Life Safety Code required emergency egress points and to support the receipt of sludge. This dock also provides storage areas for various gas bottles. The risk is being captured for visibility and will remain as part of the key risks until this issue is resolved.</p>	Mitigation action(s)	FC Date	%	Repairs to 221-T Dock #2 are needed in support of sludge receipt	06/05/17	0	Submittal of a BCR to break out the planning package planned for May.	5/15/17	80			
Mitigation action(s)	FC Date	%														
Repairs to 221-T Dock #2 are needed in support of sludge receipt	06/05/17	0														
Submittal of a BCR to break out the planning package planned for May.	5/15/17	80														
WSD-W130-17: Changes in the final design are needed after the design is issued	<p>Changes in the final design are needed after the design is issued. Changes are driven by unexpected conditions, additional reviews of the design media, or field conditions. Design changes result in cost impacts and schedule delays.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Low (10% to 25%)</p> <p><b>Worst Case Impacts:</b> \$512K, 64 days</p>			<p><b>Risk Trigger Metric:</b> Risk was realized when additional reviews of design media and K3N ventilation skid as-built conditions were analyzed during writing of test and operating procedures, as well as during stabilization activities in the canyon.</p> <ol style="list-style-type: none"> <li>Changes in fire suppression system design are necessary to allow leak testing of the full system due to limitations in the existing skid design.</li> <li>K3N skid requires modifications to ensure proper operation at WESF.</li> <li>Hot-cell penetration sealing requires more work than planned.</li> <li>Communication between hot pipe trench in WESF and B Plant causes grout to flow into B Plant during trench grouting.</li> <li>Extensive contamination and high-dose rates were found at the hot cell cover blocks during grouting preparations, causing a change to the design to prevent grout leaking into the canyon during grouting of the hot cells.</li> </ol> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Seal seams at hot-cell cover blocks and provide a controlled vent path for grouting of the hot cells.</td> <td>10/17/16</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> Recovery actions are complete and, therefore, this risk will no longer be reported as “realized” beginning in April. However, due to the residual consequences qualifying this as a key risk, it will continue to be reported on as a “High Risk Threat” in this report. <i>Due to the current status of the project, this risk no longer poses a threat. This risk will be removed from the spotlight in May and will no longer be reported.</i></p>	Mitigation action(s)	Risk Date	FC Date	%	Seal seams at hot-cell cover blocks and provide a controlled vent path for grouting of the hot cells.	10/17/16	Complete	100				
Mitigation action(s)	Risk Date	FC Date	%													
Seal seams at hot-cell cover blocks and provide a controlled vent path for grouting of the hot cells.	10/17/16	Complete	100													
WSD-W130-22: Loss of contamination control due to invasive activities	<p>There is a risk that during grout fill of the hot cells/duct that grout may leak from the cells/duct, through the wall and leak into the operating gallery, service gallery or truckport space. There is a risk that during operations, containment barriers are lost and the operating gallery, service gallery, filter pit area, or truck port space is contaminated.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Medium (26% to 74%)</p> <p><b>Worst Case Impacts:</b> \$800K, 64 days</p>			<p><b>Risk Trigger Metric:</b> During cleanout of the grout lines to C Cell, radioactive material collected in the temporary ventilation system, causing a high dose field in the canyon.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Develop and implement a recovery plan to address the high dose field in the canyon</td> <td>12/19/16</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Implement BCR to utilize MR for change in baseline assumption and unplanned in -scope work to recover from contamination events experienced.</td> <td>2/20/16</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> A 3-phase recovery plan was executed to safely mitigate the high-dose field in the canyon. Recovery actions are complete, and this risk will no longer be reported as “realized” beginning in April. However, due to the residual consequences qualifying this as a key risk, it will continue to be reported on as a “High Risk Threat” in this report. <i>Due to the current status of the project, this risk no longer poses a threat. This risk will be removed from the spotlight in May and will no longer be reported.</i></p>	Mitigation action(s)	Risk Date	FC Date	%	Develop and implement a recovery plan to address the high dose field in the canyon	12/19/16	Complete	100	Implement BCR to utilize MR for change in baseline assumption and unplanned in -scope work to recover from contamination events experienced.	2/20/16	Complete	100
Mitigation action(s)	Risk Date	FC Date	%													
Develop and implement a recovery plan to address the high dose field in the canyon	12/19/16	Complete	100													
Implement BCR to utilize MR for change in baseline assumption and unplanned in -scope work to recover from contamination events experienced.	2/20/16	Complete	100													
<b>FY2017 Risk Triggers (Risk could be realized in FY2017)</b>																

Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
<b>RL-0013/WBS-013</b>										
WSD-W130-18: Failure of WESF Hot Cell during Grouting	There is a risk that the capacity of the floor or walls of the hot cells cannot sustain the applied loads from grout and fails. In addition, a failure to the cover blocks and or the canyon floor results in cost impacts and schedule delays.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$768K, 96 days	●	↔	<p><b>Risk Trigger Metric:</b> Initiation of hot cell grouting.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Fill hot cells in 3-foot lifts to minimize sudden stress by allowing partial curing between lifts, as well as early detection of hot-cell floor failure.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> Structural evaluations and calculations have been completed and identified controls necessary during grouting (limit lifts of grout placement to three feet, compare actual grout volume placed to calculated estimated volume). No alternative course of actions needed at this time. <b>Due to the current status of the project, this risk no longer poses a threat. This risk will be removed from the stoplight in May and will no longer be reported.</b></p>	Mitigation action(s)	FC Date	%	Fill hot cells in 3-foot lifts to minimize sudden stress by allowing partial curing between lifts, as well as early detection of hot-cell floor failure.	Complete	100
Mitigation action(s)	FC Date	%								
Fill hot cells in 3-foot lifts to minimize sudden stress by allowing partial curing between lifts, as well as early detection of hot-cell floor failure.	Complete	100								
WSD-W135-15: Utilization of 2003 Pre-Conceptual Design	A pre-conceptual design for the dry storage of the capsules was completed in July 2003. If this design cannot be utilized, it will be necessary to initiate and complete a new conceptual design, including a new analysis of alternatives.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Very Likely (>90%) <b>Worst Case Impacts:</b> \$5,100K, 0 days	●	↔	<p><b>Risk Trigger Metric:</b> The 2003 pre-conceptual design for the dry storage of capsules cannot be utilized.</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 changes in the month of April. The 2003 pre-conceptual design is based on design criteria that is over 13 years old. Design criteria that impacts the ability to utilize the 2003 pre-conceptual design include: location of the Dry Storage Facility, duration of the storage period, Safety Basis Requirements and Environmental Permitting. Continuing to have discussions with RL can clarify impacts of the Safety Basis Requirements and Environmental permitting. The risk is being captured for visibility and will remain as part of the key risks until this issue is resolved.</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-W135-16: Content and Approval of Critical Decision Packages	The content of the Critical Decision packages required by DOE O 413.3B are more extensive than anticipated and require an extensive RL review.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Very Likely (>90%) <b>Worst Case Impacts:</b> \$2,000K, 0 days	●	↔	<p><b>Risk Trigger Metric:</b> The content and review/approval process for the Critical Decision Packages is impacted by DOE O 413.3B.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Prepare joint tailoring strategy with RL on how to meet the DOE O 413.3B requirements</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> <b>No changes in the month of April.</b> The pre-conceptual design of the project was based on DOE O 413.3A, the current version is DOE O 413.3B, change 2. New requirements will impact the content of the critical decision packages or impact the duration and extent of the RL review. Working closely with RL on the tailoring strategy to meet the DOE O 413.3B requirements. The risk is being captured for visibility and will remain as part of the key risks until this issue is resolved. No further mitigation actions are necessary at this time.</p>	Mitigation action(s)	FC Date	%	Prepare joint tailoring strategy with RL on how to meet the DOE O 413.3B requirements	Complete	100
Mitigation action(s)	FC Date	%								
Prepare joint tailoring strategy with RL on how to meet the DOE O 413.3B requirements	Complete	100								
WSD-W135-17: Modifications to WESF	The transfer of the capsules to dry storage will require modifications to the WESF.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Very Likely (>90%) <b>Worst Case Impacts:</b> \$7,300K, 0 days	●	↔	<p><b>Risk Trigger Metric:</b> Modification to the WESF facility are required for transfer of capsules to dry storage.</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> <b>No changes in the month of April.</b> The approach incorporated into the pre-conceptual design for the transfer of the capsules, required minimal modifications to the WESF. New or updated requirements will require more extensive modifications to the WESF. Before submittal of CD-1, CHPRC will review 30 percent design from subcontractor, which will provide details of WESF modifications. The risk is being captured for visibility and will remain as part of the key risks until this issue is resolved.</p>	Mitigation action(s)	FC Date	%	None identified at this time.	N/A	N/A
Mitigation action(s)	FC Date	%								
None identified at this time.	N/A	N/A								
<b>Unassigned Risks (Pending ownership of identified risks/opportunities)</b>										
No unassigned risks identified in the month of April.										

## PROJECT BASELINE PERFORMANCE

### Current Month

(\$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	8.7	7.8	7.4	(1.0)	-11.0%	0.3	4.5%

Numbers are rounded to the nearest \$0.1 million

#### CM Schedule Performance (-\$1.0M/-11.0%)

The current month negative schedule variance is associated with the DOT Super 7A Container planned for delivery in April, but is on hold pending welding design clarifications (about \$400K) and the RH/Large Box Repack (about \$700K), which was completed in a prior period.

#### CM Cost Performance (+\$0.3M/+4.5%)

The current month schedule variance is within threshold.

## Contract-to-Date (CTD)

(\$M)

WBS 013/RL-0013 Waste and Fuels Management Project	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Variance at Completion (VAC)
Total	1,149.2	1,147.4	1,072.8	(1.8)	-0.2%	74.5	6.5%	1,345.4	1,293.2	52.2

Numbers are rounded to the nearest \$0.1 million

#### CTD Schedule Performance (-\$1.8M/-0.2%)

The contract-to-date schedule variance is within threshold.

#### CTD Cost Performance (+\$74.5M/+6.5%)

The contract-to-date favorable cost variance is due to the continued implementation of planned efficiencies.

#### Variance at Completion (+\$52.2M/+3.9%)

The Variance at Completion is within threshold.

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

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

FY2017			
WBS 013/RL-0013 Waste and Fuels Management Project	Projected Funding	Spending Forecast	Variance
Spending Forecast	112.1	92.9	19.2
Incremental Scope Pending Change Management	0.0	3.4	(3.4)
RL-0013 – Total	112.1	96.3	15.9

Numbers are rounded to the nearest \$0.1 million.

### Funds/Variance Analysis

The FY2017 projected funding for Project Breakdown Structure (PBS) RL-0013 of \$112.1 million was reduced this month based on RL funding guidance. The total fiscal year spend forecast (FYSF) of \$96.3 million was reduced by approximately \$1 million from last month. It was primarily attributed to MCSC Project where the conceptual design subcontractor's anticipated cost profile was not available when the scope was planned, but the current forecast has been adjusted down accordingly. This also includes scope awaiting authorization, such as accelerated TRU Repackaging.

### Critical Path Schedule

WESF Ventilation & Stabilization Project's, W-130, critical path showed a completion date at April month end for Performance Measure PM-13-5-16 on April 10, 2017. Grouting of hot cells A, B, C, D, E, F, and the A Cell airlock was completed successfully using the modified grouting sequence and grout conveyance line cleanout methods (e.g. pigging into waste bags in the canyon).

## MILESTONE STATUS

Tri-Party Agreement milestones represent significant events in project execution. RL Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The Performance Measurement Baseline (PMB) Annual Update, implemented in September 2013, and subsequent approved BCRs define CHPRC planning with respect to Tri-Party Agreement milestones. The following table is a one-year look ahead of commitments and Tri-Party Agreement enforceable milestones and non-enforceable target due dates.

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
C-026-07K	Tritium Treatment Technology Developments to Ecology and EPA	3/31/17	4/3/17	4/3/17	Complete
M-091-03K	Submit Revision of TRUM Waste and MLLW PMP to Ecology	6/30/17		6/30/17	On schedule

M-092-05	Determine Disposition Path and Establish Cs/Sr Interim Milestones.	6/30/17		6/29/17	On schedule
M-091-52	Submit change request with target dates for new/modified capabilities to process TRUM waste.	9/30/17		8/30/17	On schedule
C-026-07L	Tritium Treatment Technology Developments to Ecology and EPA	3/31/18		3/29/18	On schedule

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

Contract Section	Project	GFS/I	Status
<b>CONTRACT</b>			
J.12/C.2.2, C.2.3	PBS-RL-0011, Plutonium Finishing Plant Closure Project  PBS-RL-0013, Solid and Liquid Waste Treatment and Disposal	Offsite Transportation of Radioactive Material: RL provides equipment and government drivers to transport TRU materials outbound/inbound between the Hanford Site and PFNW locations. RL is the authorized shipper and acts as signatory on the shipping papers, and ensures DOE Manual 460.2-1 is complied with. RL arranges for Commercial Motor Vehicle Safety Alliance (CVSA) level VI vehicle inspections and verifies that the government drivers meet the applicable 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 TSD requirements.	Ongoing
J.12/C.2.3.6	PBS-RL-0013, Transuranic Waste Certification	WIPP provides shipping resources and manages the schedule for transportation of these containers to WIPP. The schedule is variable and the number of shipments is controlled by DOE-HQ on a complex-wide priority. Cost for shipment of TRU waste offsite is borne by the CBFO.	No WIPP shipments are planned within the Contract period of performance.

### DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	RL Due Date
RL Review and Approve MDSA and Technical Safety Requirement (TSR) Rev. 12	11/29/16 (A)	05/01/17

# Section D

## Soil and Groundwater Remediation Project (RL-0030)



J. D. Rendall  
Vice President and  
Project Manager for  
Soil and Groundwater  
Remediation Project

M. A. Wright  
Vice President for  
Project Technical  
Services

April 2017  
CHPRC-2017-04, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

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

## PROJECT SUMMARY

Pump and Treat (P&T) Operations continued making progress on the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) remedial process documentation for the River Corridor and Central Plateau. Groundwater treatment and well drilling (including development) completed in the current month includes the following:

Treatment Facility	Million Gallons Treated		Chrome (kg)		Carbon Tet (kg)		Tech-99 (pCi)		Uranium (kg)	
	CM	FYTD	CM	FYTD	CM	FYTD	CM	FYTD	CM	FYTD
DX P&T	35.4	225.1	2.7	21.2						
HX P&T	40.7	193.9	2.4	15.1						
KR-4 P&T	14.0	89.0	0.2	1.0						
KW P&T	3.5	3.5	0.9	0.9						
KX P&T	35.9	248.3	1.7	13.9						
200 West P&T	59.0	518.6	4.5	44.2	89	1023	.27x10 <sup>12</sup>	1.18x10 <sup>12</sup>	30.2	56
<b>Combined</b>	<b>188.6</b>	<b>1278.4</b>	<b>12.3</b>	<b>96.2</b>	<b>89</b>	<b>1023</b>	<b>.27x10<sup>12</sup></b>	<b>1.18x10<sup>12</sup></b>	<b>30.2</b>	<b>56</b>
<b>FY2017 KPG</b>	<b>--</b>	<b>2200</b>	<b>--</b>	<b>160</b>	<b>--</b>	<b>1700</b>	<b>--</b>	<b>N/A</b>	<b>--</b>	<b>45</b>

Well Drilling by Area	FY2017 Planned	Current Month	FY2017 Cumulative
100-KR-4	5	-	1
100-HR-3	6	-	-
200-UP-1	10	-	7
200-ZP-1	5	-	-
M-24 Milestone	5	-	-
300 Area	67	23	38
200-DV-1	5	-	-
<b>Total Wells</b>	<b>103</b>	<b>23</b>	<b>46</b>
<b>Site Wide Boreholes</b>	<b>34</b>	<b>-</b>	<b>-</b>

## EMS Objectives and Target Status

Objective #	Target	Actions	Due Date	Status
17-EMS-SGWR-OB1 Monitor and confirm low carbon tetrachloride emissions at the 200 West P&T Facility	T1 – Evaluate treated off gas analytical results from compliance sampling and process sampling each quarter.	Monitor and confirm low carbon tetrachloride emissions at the 200 West P&T Facility.	9/30/17	50%

## TARGET ZERO PERFORMANCE

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	2	NA
Total Recordable Injuries	0	0	NA
First Aid Cases	0	*49	NA *9 FA cases, PTS in support of RL-0030.
Near-Misses	0	1	NA

## KEY ACCOMPLISHMENTS

### RL-0030 Accomplishments

#### RL-0030.O1 RL 30 Operations

##### Environmental Integration

- Conducted the Hanford Site Composite Analysis Technical Approach Workshop on March 29-30, 2017. Participants included DOE Headquarters, RL, contractor representatives for Hanford Site Performance Assessments, and a technical adviser to the Hanford Site Groundwater/Vadose Zone Executive Council. Presented the technical approach for all the facets of the Composite Analysis update and collected input for modifications to that approach. Overall, the proposals were well received.

##### River Corridor

- Submitted the draft Hanford Site Groundwater Monitoring Report for 2016 to RL for review on April 12, 2017.

##### 100-KR-4 Operable Unit (OU)

- Initiated drilling at monitoring well locations 199-K-228 and 199-K-230 in support of fiscal year (FY) 2017 optimization.
- Restarted the KW P&T system after completing an 11-month rebound study. Currently extracting water up-gradient from the KW reactor at approximately 225 gallons per minute (gpm).
- Revised 100K Memorandum of Agreement (MOA) and RL provided the final document to the Yakama Nation for signature on April 13, 2017.

##### 100-NR-2 OU

- Received Ecology approval on the closure certification for the 1324-N Surface Impoundment and 1324-N Percolation Pond.

##### 300-FF-5 OU

- Drilled 51 of 67 injection and monitoring wells in support of the Stage B Uranium Sequestration

## Central Plateau

### 200-UP-1 OU

- Completed Revision 2 to the drilling sampling and analysis plan (SAP) that includes the remaining 24 wells to be installed in support of Tri-Party Agreement Milestone M-016-193.
- Completed drilling the first (299 W19-125) of two 8-inch uranium plume wells.
- Completed the design for expansion of the uranium extraction system to include a third extraction well (299 W19-125) to improve capture of the uranium plume. Initiated long-lead procurements.
- Completed construction of the last of six southeast chromium plume characterization groundwater monitoring wells on March 30, 2017.

### 200-BP-5/200-PO-1 OU

- Completed the Revision 0 Groundwater SAP for the 200-BP-5 Groundwater OU on April 21, 2017.

### 200-WA-1 and 200-BC-1 OUs

- Submitted Change Proposal CP 030 318 1618, Revision 0, 200-WA-1 and 200-BC-1 OUs Characterization to RL on April 5, 2017.
- Completed drilling two wells and initiated drilling of the next two wells in support of the Uranium Reactive Gas Sequestration Treatability Test. Drilling is on schedule to complete in early May.

### 200-EA-1 OU

- Completed the waste site scoping workshops with RL and Ecology, addressing the last 27 waste sites on March 30, April 10, April 13, and April 19, 2017.
- Completed the storyboard with RL and Ecology on March 28, 2017. Held two meetings to discuss the workbook (March 28 and April 20, 2017), and conducted a field site visit (March 29, 2017).
- Initiated preparation of the SAP for opportunistic sampling associated with Resource Conservation and Recovery Act of 1976 (RCRA) drilling at the A-29 Ditch.

### 200-DV-1 OU

- Completed two addenda that were prepared for the Revision 0 Characterization SAP for the 200-DV-1 OU on April 6, 2017. One addendum was prepared to evaluate monitored natural attenuation in the vadose zone, and the second addendum addresses additional shallow soil sampling for the baseline risk assessment.

### 200-ZP-1 OU

- Initiated drilling for the new injection wells on March 28, 2017, with an additional drill rig beginning at a second location on April 4, 2017.

## Groundwater P&T Facilities

### 200 West P&T

- Operated the 200 West P&T at an average of 1,366 gpm. Completed fluidized bed reactor (FBR)-A repair activities and commenced the recovery process. Full recovery of FBR-A is expected to be completed by mid-May.

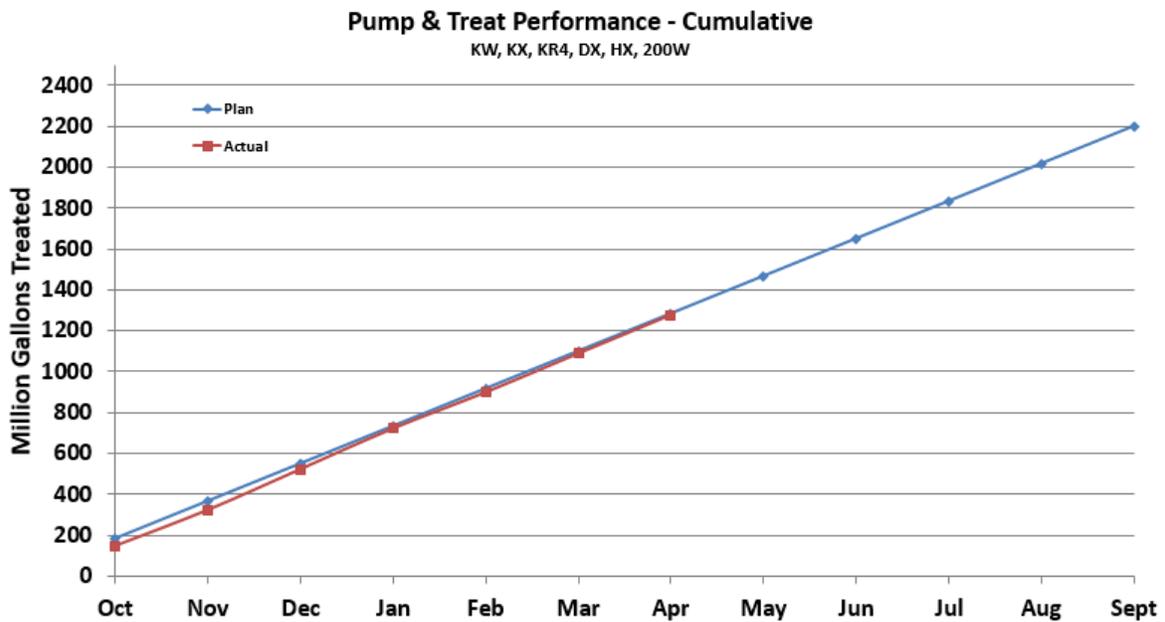
### 100 Area P&Ts

- Operated the DX P&T at 819 gpm, above the facility capacity of 775 gpm.
- Operated the KR-4 P&T at 324 gpm, below the facility capacity of 330 gpm.
- Operated the KW P&T at 81 gpm, below the facility capacity of 330 gpm. Work activities continue to return KW to full flow and are expected to be completed by the end of May.
- Operated the KX P&T at 832 gpm, below the facility capacity of 900 gpm.
- Operated the HX P&T at maximum extraction well capacity. Monthly average at 942 gpm.

**Project Technical Services (PTS) Accomplishments**

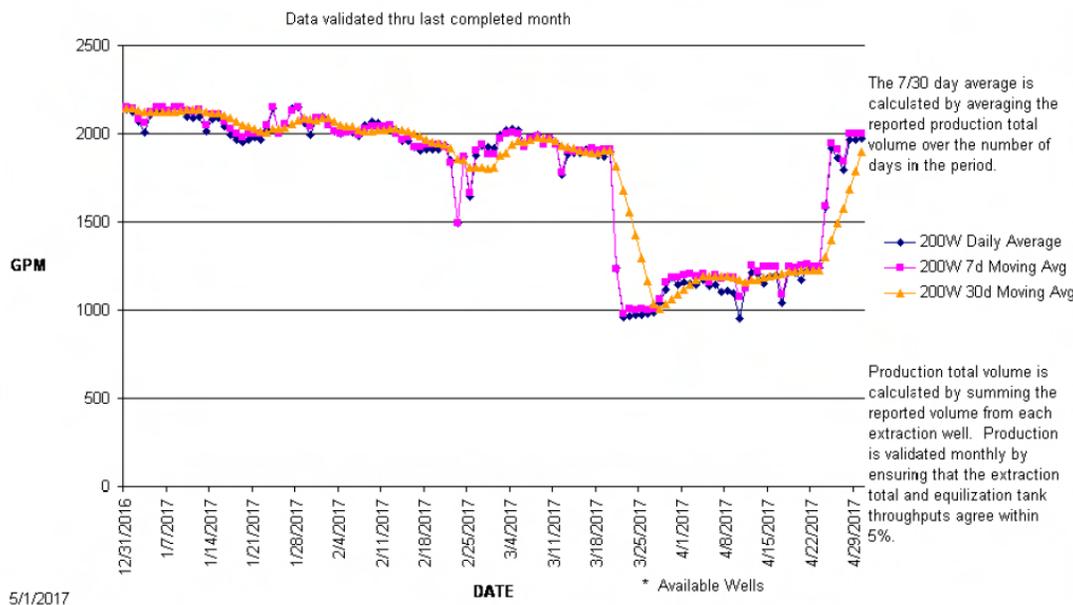
- **Engineering Services**
  - o Reviewed and provided comments for an engineering evaluation for providing short circuit and ground fault protection for adjustable frequency drives.
  - o Evaluated arc flash hazards and labeling for ventilation equipment at the 200 West P&T facility.
- **Project Delivery**
  - o Completed 100-DX fiber installation for 1806D (M1 transfer building) and 1804D (main process building).
  - o Continued with Waste Sampling and Characterization Facility Restroom Trailer design activities. The Facility Management Plan was approved and released. Completed ground scanning of area.

**FY2017 P&T Operations**



## 200 West P&T

**2W EXTRACTION WELLS AVERAGE DAILY FLOW RATES**  
**Current GPM = 1960 Capacity = 1960 / 2500 = 78% \***  
**30d Average GPM = 1283 Capacity = 1283 / 2500 = 53% \***  
**7d Average GPM = 1898**



## MAJOR ISSUES

### Issue:

Experiencing regulatory agency delays in the approval of decision documents, including:

- 200-BP-5 Remedial investigation (RI)/200-PO-1 RI Addendum delayed due to Ecology review.
- 200-IS-1 RI/Feasibility Study (FS) Work Plan delayed due to formal dispute.
- 100-N Revised RI delayed due to Ecology review.
- 100-BC-5 RI/FS and Proposed Plan (PP) delayed due to EPA review.

### Corrective Action:

Maintain visibility on these delays to senior management. RL/CHPRC to continue working with the regulatory agencies to facilitate completion of these documents. Submit notice of change letters to RL as contract activities are impacted.

### Status:

Delays in completion of the decision documents are reported weekly to RL management and monthly to RL, EPA, and Ecology senior management. Specific document status includes:

- 200-BP-5/200-PO-1 RI: Ecology suspended review of the 200-BP-5 RI report and the 200-PO-1 RI report addendum on October 23, 2015, (15-NWP-189), pending resolution of the Central Plateau modeling approach. The modeling approach was resolved based on Ecology's letter (16-NWP-220) dated December 28, 2016. RL sent a letter to Ecology (17-AMRP-0114) on March 20, 2017, requesting comments be provided within 45 days in accordance with the Tri-Party Agreement. No response was received from Ecology during April.

- 200-IS-1 RI/FS Work Plan: Ecology has stopped review of change package C-13-01 due to disagreement regarding treatment, storage, and disposal (TSD) determinations and associated criteria.

On October 20, 2016, RL provided the updated Change Package C-13-01 and four other change packages, to better align the waste sites within the 200-IS-1 OU and several other OUs, to Ecology for review/approval. This topic was discussed during the January 4, 2017, Senior Executive Council meeting; RL and Ecology attorneys continue working to reach an agreement with an anticipated resolution date of June 30, 2017. Dispute resolution was formally extended to June 30, 2017, via Change Control Form M-15-13-02. No change.

- 100-NR-2 RI: Issue closed and a decision was made with RL to prepare a Draft B RI/FS using several of the tools developed during the Document Improvement Kaizen Workshop in an attempt to receive Ecology's approval of the revised document.
- 100-BC-5 RI/FS and PP: EPA comments on the Draft A RI/FS and PP were due January 31, 2017. EPA has not confirmed a date when the review will be completed. No change.

**Issue:**

Completion of Cultural Resource Reviews (CRRs) are delayed due to 1) significant snow accumulations that delayed the archeological field surveys or 2) issuance of the Memorandum of Agreement with the Tribes. The impacted CRRs include:

Snow impacted:

- 100-HR-3 wells/conveyance lines delayed since December 14, 2016. Archeological surveys completed February 28, 2017. Final CRR projected to be completed by June 20, 2017.
- 200-UP-1 monitoring well delayed since December 20, 2016. Archeological survey completed on March 2, 2017. Final CRR projected to be completed by June 5, 2017.

MOA Impacted:

- 100-KR-4 well conveyance lines.
- 100-DR-3 well conveyance lines.

**Corrective Action:**

Conduct the archeological field survey as soon as snow conditions allow and then expedite actions to prepare draft CRRs. Closely monitor and assist Mission Support Alliance, LLC (MSA) progress on completion of the CRRs.

**Status:**

Archeological field surveys for 200-UP-1 and 100-HR-3 were completed on March 2, 2017, and February 28, 2017, respectively. The schedule for completion of these CRRs is now mid-June, which affects the ability to complete the well drilling and alignment scope for this fiscal year. The final MOA for 100-KR-4 was provided to the Yakama Nation for signature on April 13, 2017. The first workshop for the 100-DR-4 MOA was held with the Yakama Nation on April 18, 2017. Currently, neither of these MOAs are approved.

Notified RL via letter CHPRC-1701319 on April 4, 2017, that successful completion of PM-30-1-17 Maximize plume containment and remediation utilization has been jeopardized by delays to these well drilling and alignment CRRs. Once the CRRs are approved, CHPRC will quantify the impacts.

**Issue:**

A small water leak near the base of FBR-A was discovered on January 30, 2017. Exact location/cause of the leak cannot be determined without tank entry.

**Corrective Action:**

Identify leak location and cause and correct.

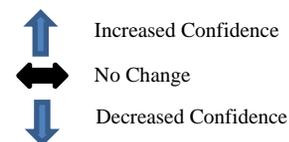
**Status:**

Completed the repair process on April 20, 2017. The recovery process is in progress and full recovery of FBR-A is expected to be completed in mid-May. The cause of the leak was determined to be a missing nozzle, which caused accelerated erosion. Issue is closed and will not be reported on in future months.

### RISK MANAGEMENT STATUS

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

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



Risk Title	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
<b>RL-0030/WBS-030</b>										
<b>Explanation of major changes to the project monthly stoplight chart:</b> No major changes to the risk stoplight chart in the month of <b>April</b> .										
<b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)										
OPPORTUNITY: SGW-007A: Sampling Requirement Reduction	Reduction in field sampling (locations, frequency, or total number of samples collected) has the opportunity to reduce long-term groundwater monitoring cost. <b>Risk Handling Strategy:</b> Exploit  <b>Probability:</b> Very Likely (>90%)  <b>Worst Case Impacts:</b> \$1 million, 0 day			<b>Opportunity Event:</b> The <i>Optimization Plan to Revise the Groundwater Sampling Plan</i> is final and provides the roadmap to revise the groundwater monitoring SAPs over the next two years. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Opportunity action(s)</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>Obtain Agency approval of the revised SAPs.</td> <td style="text-align: center;">TBD</td> <td style="text-align: center;">94</td> </tr> </tbody> </table> Note: 33 of the planned 35 SAP revisions have been completed (94%).  <b>Opportunity Assessment:</b> All 10 CERCLA groundwater monitoring SAPs have been revised and transmitted to RL and the regulators. <b>Nine</b> of the SAPs are approved and being implemented. <b>A path forward to complete the 200-PO-1 SAP is being developed to incorporate the lessons learned from the 200-BP-5 SAP that was recently approved. The forecast (FC) date will then be updated to reflect the new completion date based on the path forward.</b>  All 25 RCRA monitoring plans have been reviewed. Of these, 13 plans required no changes and <b>eleven plans have been revised and issued. The remaining monitoring plan is on schedule to be issued in May.</b>  No alternative course of actions are needed at this time.	Opportunity action(s)	FC Date	%	Obtain Agency approval of the revised SAPs.	TBD	94
Opportunity action(s)	FC Date	%								
Obtain Agency approval of the revised SAPs.	TBD	94								
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)										
No critical risks identified in the month of <b>April</b> .										
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)										
No high risks identified in the month of <b>April</b> .										
<b>Unassigned Risks</b> (Pending ownership of identified risks/opportunities)										
No unassigned risks identified in the month of <b>April</b> .										

## PROJECT BASELINE PERFORMANCE

### Current Month

(\$M)

RL-0030 Soil and Groundwater Remediation	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	13.4	10.5	10.2	(2.9)	-21.6%	0.3	2.9%

Numbers are rounded to the nearest \$0.1 million.

#### CM Schedule Performance (-\$2.9M/-21.6%)

The negative schedule variance resulted from the following:

- Delay of the 100-NR-2 Barrier maintenance and expansion activities, which were scheduled to start in FY2016 but were deferred due to funding limitations and pending resolution of cultural clearance items. Some cultural clearance and other planning activities are forecast to complete in FY2017, with fieldwork initiating in FY2018.
- Preparation of the internal draft 200-IS-1 RI/FS Report and Proposed Plan is scheduled during this period. The baseline planned a July 2016 start date for the 200-IS-1 RI/FS Report based on the work plan (WP) being approved with no characterization required. The WP is currently on hold due to scope dispute resolution (Tri-Party Agreement Milestone M-015-112).
- Positive performance earned in prior periods (work acceleration) for 200-PO-1 NRDWL and 100-HR-3 optimization, and 200-UP-1 SE chrome plume characterization drilling campaigns, 100-HR-3 D&D, and 100-HR-3 well realignments is returning to zero by the end of FY2017.

#### CM Cost Performance (\$0.3M/2.9%)

The current month cost variance is within reporting thresholds.

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

RL-0030 Soil and Groundwater Remediation	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Variance at Completion (VAC)
Total	1,364.8	1,338.5	1,304.7	(26.3)	-1.9%	33.8	2.5%	1,566.5	1,501.5	65.0

Numbers are rounded to the nearest \$0.1 million.

### CTD Schedule Performance (-\$26.3M/-1.9%)

The variance is within reporting thresholds.

### CTD Cost Performance (+\$33.8M/+2.5%)

The variance is within reporting thresholds.

### Variance at Completion (+\$65.0M/+4.2%)

The variance is within reporting thresholds.

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

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

RL-0030 Soil and Groundwater Remediation	FY2017		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	126.6	108.2	18.3
Incremental Scope Pending Change Management	0.0	14.2	(14.2)
RL-0030 –Total	126.6	122.4	4.2

Numbers are rounded to the nearest \$0.1 million

### Funds/Variance Analysis

FY2017 revised budget guidance received from RL reflects expected funding of \$126.6 million for project breakdown structure (PBS) RL-0030. The fiscal-year spending forecast (FYSF) of \$122.4 million includes actions anticipated to achieve funding targets.

### Critical Path Schedule

Critical path analysis can be provided upon request.

## MILESTONE STATUS

Tri-Party Agreement milestones represent significant achievements in project execution. Enforceable Tri-Party Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key activities. The performance measurement baseline (PMB) Annual Update, implemented in September 2013, and subsequent approved baseline change requests (BCR) define CHPRC planning with respect to Tri-Party Agreement milestones. A Tentative Agreement for Tri-Party Agreement milestone series M-015, M-016, M-037, M-085, and M-094 was signed on October 26, 2015, and the final approval package was signed on May 25, 2016. The following table is a one-year look ahead of PBS RL-0030 Tri-Party Agreement enforceable milestones, non-enforceable target due dates and commitments.

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
<b>Milestones in Dispute</b>					
M-015-112	Submit Draft B, 200-IS-1 OU Pipeline System Waste Sites RFI/CMS/RI/FS Work Plan to Ecology	2/28/14		TBD	Dispute resolution extended to June 30, 2017.
<b>Milestones on Schedule or at Risk</b>					
M-024-58J	Initiate Discussions of Well Commitments	6/1/17		6/1/17	On schedule
M-024-68-T01	Conclude Discussions of Well Commitments	8/1/17		8/1/17	On schedule
M-015-92A	Submit RFI/CMS & RI/FS Work Plan for 200-EA-1 OU to Ecology	9/30/17		6/12/18	An extension to the due date is being requested to continue implementation of the collaborative scoping process

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

None currently identified.

## DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	RL Due Date
RL Review of the Draft 100 Area P&T Report	5/15/17	6/14/17
RL Review of the Draft 200 Area P&T Report	5/15/17	6/14/17
RL Transmit Draft A 200-BP-5 Removal Action Work Plan to Regulators for Review	5/25/17	6/4/17
RL Review Central Plateau Tracer Study Sampling Analysis Instruction	5/31/17	6/27/17
RL Review Decisional Draft 100-HR-3 Remedial Design/Remedial Action Work plan	6/21/17	7/21/17
RL Review Draft 200-WA-1 Waste Control Plan	6/12/17	6/26/17

# Section E

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



R. M. Geimer  
Vice President for  
K Basin Operations and  
Plateau Remediation

April 2017  
CHPRC-2017-04, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

The Tri-Party Agreement milestone for the 3 Year Rolling Wave Schedule for Waste Site Removal (M-085-82) was completed on schedule. Removal of the rock and liner on the reduction and oxidation (REDOX) roof continued this month but was impacted by high winds.

## EMS Objectives and Target Status

None currently identified.

## 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	4	11	<ul style="list-style-type: none"> <li>4/4/2017 - Employee fell, causing a contusion to a hand. Body part affected: Hand (24422).</li> <li>4/20/2017 - Employee was bitten on the neck by a bug. Body part affected: Neck (24434).</li> <li>4/25/2017 - Employee was working on a roof when a gust of wind blew a foreign body into an eye. Body part affected: Eye (24438).</li> <li>4/25/2017 - While performing surveys in a building, employee developed a headache. Body part affected: Head (24436).</li> </ul>
Near Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### RL-0040 Accomplishments

#### Plutonium Uranium Extraction Plant (PUREX) Tank V-11-10-1

- Performed site setup activities to support the PUREX TK V-11-10-1 obstruction removal work activity.
- Removed the three pipe obstructions from TK V-11-10-1 and set it on the ground for future size reduction.
- Revised the PUREX TK V-11-10-1 obstruction removal work package to support high-risk size reduction of the piping removed from the tank.
- Developed the Sampling Authorization Form for collecting water samples from PUREX TK V-11-10-1 during pumping.
- Completed a work package for performing tank pumping mockup activities for PUREX TK V-11-10-1.

- Held a team review of the first draft of the PUREX TK V-11-10-1 tank pumping work package and incorporated reviewer comments.
- Assembled the TK V-11-10-1 pumping manifold and performed an on-site leak test.
- Performed various mockup tank pumping activities for TK V-11-10-1, including testing water absorbent in totes, practicing hose sleeving and hose transferring between totes, and verifying manifold valve configurations.
- Updated the PUREX TK V-11-10-1 pumping pipe and hose design to incorporate mockup input.

### **PUREX Stack Sampling System Replacement – Detailed Design**

- Design Contractor finished developing the draft 90 percent design package for the replacement PUREX stack sampling system and initiated CHPRC/ RL reviews.

### **B Plant Pre-filter and HEPA Filter Change-out**

- Performed a team work package review of the pre-filter change out and water removal work package.
- Continued incorporating changes into the B Plant pre-filter change out work package.
- Submitted an order to purchase new HEPA filters for the B Plant ACT001 and ACT002 filter banks; started addressing Quality Assurance-related issues on the order.
- Prepared a B Plant ACT002 containment tent recovery work package, ALARA Management Worksheet, and Radiation Work Permit.
- Made multiple entries into the posted area around the B Plant ACT002 tent to secure the wind-loosened tent bungees, performed additional radiological/Beryllium surveys, and applied fixative to ground contamination.

### **Continued Progress on Canyon Stabilization Documents**

- Completed Tri-Party Agreement Milestone M-085-82 for the 3 Year Rolling Wave Schedule for Waste Site Removal.
- Completed 200 Area Tier 2 Miscellaneous Facilities Removal Action Work Plan (RAWP) Draft A; REDOX RAWP Decisional Draft.
- Started air emissions calculations for 215C and 276C.

### **REDOX Risk Mitigation**

- Completed REDOX Silo Aqueous Makeup Unit documentation tour for sampling potential first floor hazards and continuing with floors two and three.

### **REDOX Roof**

- Approved REDOX Interference Removal work package through the Hazard Review Board in support of roof removal and replacement.
- Continued removal of rock from the REDOX roof. To date, over 210,000 pounds of an estimated 250,000 of material has been removed (approximately 84 percent complete).
- Continued removal of liner membrane and insulation from the REDOX roof. To date, 18,000 square feet of 25,000 square feet has been removed (approximately 72 percent complete).
- Received delivery of column steelwork to site. Steel erection scheduled to commence mid-May.

## MAJOR ISSUES

None currently identified.

## RISK MANAGEMENT STATUS

<p><b>Unassigned Risk</b></p> <p><b>Risk Passed</b></p> <p><b>New Risk</b></p> <p><b>Change</b></p>	<p> Opportunity realized, or mitigation efforts are currently working toward, or after risk trigger with no foreseeable impacts.</p> <p> 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.</p> <p> Risk currently realized, or risk mitigation efforts are past risk trigger date with foreseeable impacts. Recovery actions needed.</p>	<p> Increased Confidence</p> <p> No Change</p> <p> Decreased Confidence</p>
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Risk Title	Unmitigated Risk Impacts	Assessment		Comments								
		Month	Trend									
<b>RL-0040/WBS-040</b>												
<b>Explanation of major changes to the project monthly stoplight chart:</b> Updated stoplight chart to include realized risk WSR-202S-02: REDOX – Inclement Weather.												
<b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>												
WSR-202S-02: REDOX – Inclement Weather	Inclement weather, including moderate winds, low or high temperatures, heavy rain, or thunderstorms will impact the REDOX roof replacement.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$0K, 32 day			<b>Risk Event:</b> For the duration of February through April the REDOX roof construction activities were impacted by high wind and other weather events –20 instance were recorded from February through April.  <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Risk recovery action(s)</th> <th style="text-align: center;">Risk Date</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>Crews working overtime to support schedule recovery</td> <td style="text-align: center;">Multiple</td> <td style="text-align: center;">Ongoing</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table> <b>Recovery Action Assessment:</b> CHPRC has realized cost and schedule impacts resulting from inclement weather conditions through the months of February through April. Efforts continue to quantify schedule and cost impacts. CHPRC has and continues to perform all actions that may mitigate impacts; however, weather delays are difficult to forecast and mitigate. CHPRC plans to capture any scope and cost changes resulting from the weather delays in the TCoPD submittal for the corresponding change proposal (CP 040 311 1625).	Risk recovery action(s)	Risk Date	FC Date	%	Crews working overtime to support schedule recovery	Multiple	Ongoing	N/A
Risk recovery action(s)	Risk Date	FC Date	%									
Crews working overtime to support schedule recovery	Multiple	Ongoing	N/A									
<b>Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)</b>												
No critical risks identified in the month of April.												

**High Risk Threat Value** (Recoverable slip to enforceable or incentivized milestone)

<p>D4-064: Aging Building Systems/ Components</p>	<p>Problems with aging building systems/ components (e.g., roofing/structures, etc.) result in inoperability or requires unscheduled maintenance/outages, resulting in cost impacts.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Likely (75% to 90%)</p> <p><b>Worst Case Impacts:</b> \$2 million, 0 day</p>			<p><b>Risk Event:</b> During routine surveillance activities, unforeseen events cause systems to be compromised. This is a lifecycle risk and will continue through the CHPRC contract period (September 30, 2018). This risk was realized in March due to increased future maintenance costs; however, a BCR was implemented to utilize MR, and the risk has since been recovered from.</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>Recovery Assessment:</b> A pre-conceptual design has been provided to RL with an estimate for a like replacement of the entire PUREX stack sample system. CHPRC was provided a Not to Exceed (NTE) to complete a detailed design package for the system and to start demolition and installation activities; however, it is expected the NTE amount will be expended early on during construction. The detailed design contract for the replacement system is projected to finish in May 2017. The project has also received change orders to complete roof replacement of the REDOX facility and to also initiate REDOX Silo and North Sample Gallery cleanout.</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								

**Unassigned Risks** (Pending ownership of identified risks/opportunities)

No unassigned risks identified in the month of April.

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

WBS 040/ RL-0040 Nuclear Facility D&D	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	2.4	1.8	2.3	(0.6)	-26.2%	(0.6)	-31.2%

Numbers are rounded to the nearest \$0.1 million

**CM Schedule Performance: (-\$0.6M/-26.2%)**

The unfavorable schedule variance in the current month (CM) is due to:

- The REDOX roof construction activities were impacted by high winds during the month (10 instances were recorded in April).
- The procurement and fabrication of the PUREX stack sampling replacement is behind schedule for two reasons. First, the contract award was initially delayed by one month due to the development of the scope of work taking longer than expected. Secondly, the design was originally planned to have one draft review before the final design was released. However, the design was actually reviewed in two stages (the 60 percent and 90 percent design reviews), which has added an additional month to the duration of the design activity.

**CM Cost Performance: (-\$0.6M/-31.2%)**

The unfavorable cost variance in the CM is due to:

- Labor support for the REDOX roof effort continued for oversight and management while being able to claim minimal progress on the construction activities. Subcontractor and labor costs are also increasing due to weekend work.
- Subcontract cost for the PUREX stack sampling replacement has increased due to the second round of design reviews not originally planned.

### Contract-To-Date (\$M)

WBS 040/ RL-0040 Nuclear Facility D&D	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Variance at Completion (VAC)
Total	438.3	433.1	403.1	(5.3)	-1.2%	30.0	6.9%	481.3	452.3	29.0

Numbers are rounded to the nearest \$0.1 million

**Cost to date (CTD) Schedule Performance: (-\$5.3M/-1.2%)**

The schedule variance is within reporting thresholds.

**CTD Cost Performance: (+\$30.0M/+6.9%)**

The favorable cost variance is due to prior year activity including:

- The majority of the CTD Cost Variance is from legacy work dating back to the American Recovery and Reinvestment Act (ARRA) time period.
- The remaining CTD favorable cost variance base-funded work is due to efficiencies for Surveillance and Maintenance and D4 activities as a result of utilization of existing site equipment and fewer resources, and Program Management utilizing fewer resources.

**Variance at Completion (+\$29.0M/+6.0%)**

The favorable Variance at Completion is due to under runs in the Waste Identification Form (WIF) Development, Cold and Dark, and Demolish 212N, 212P, and 212R Projects during the ARRA Project. Efficiencies were gained by combining these activities into the D4 activities, thus reducing overall resource requirements.

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

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

WBS 040/RL-0040 Nuclear Facility D&D	FY2017		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	38.9	24.1	14.8
Incremental Scope Pending Change Management	0.0	3.9	(3.9)
RL-0040 – Total	38.9	28.0	10.8

Numbers are rounded to the nearest \$0.1 million.

**Funds/Variance Analysis**

Fiscal year (FY) 2017 projected funding for project breakdown structure (PBS) RL-0040 is \$38.9 million. The incremental scope pending includes remaining scope for REDOX roof replacement; silo cleanout of

levels 1-3; the north sample gallery cleanout; and balance of the demolition of the four B Plant ancillary buildings and REDOX steam lines demobilization.

The EAC decreased by \$4 million in April in order to meet management’s proposed funding targets which was mostly achieved by pushing activities into FY2018. This scope includes: PUREX Stack Monitor (post design phase), 222B Cold and Dark, 242B & BL Demo Planning, 224B RAWP Air Emissions Calculations, and the 276BA Demo.

**Critical Path Schedule**

Critical path analysis can be provided upon request.

**MILESTONE STATUS**

Tri-Party Agreement milestones represent significant events in project execution. RL Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The Performance Measurement Baseline (PMB) Annual Update, implemented in September 2013, and subsequent approved baseline change requests (BCR) define CHPRC planning with respect to Tri-Party Agreement milestones. The following table is a one-year look ahead of commitments and Tri-Party Agreement enforceable milestones and non-enforceable target due dates.

Number	Title	Due Date	Actual Date	Forecast Date	Status/ Comment
M-016-250b	Submit to Ecology a three-year rolling prioritized schedule to implement waste site removal actions.	3/31/2017	3/30/2017		Complete
M-085-80A	Submit to Ecology secondary document, a data quality objective (DQO) report to assess structural integrity of PUREX storage tunnels 1 and 2.	9/30/2017		9/11/2017	On schedule

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

None currently identified.

**DOE ACTIONS / DECISIONS**

Description	CHPRC Delivery Date	RL Due Date
RL Review of 202S Demo Prep / D&D / Annex Action Memo	11/21/16 (A)	09/03/17
RL Review of 202S Demo Prep / D&D / Annex SAP	03/09/17 (A)	04/24/17 (A)
RL Review of 221B Demo Prep & Stabilization of Legacy Vent System Action Memo	06/28/17	07/27/17
RL Review of 202A Demo Prep / Annex / Vent Mods Action Memo	10/09/17	10/23/17



# Section F

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



R. M. Geimer  
Vice President for  
K Basin Operations and  
Plateau Remediation

April 2017  
CHPRC-2017-04, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

T. L. Hobbes  
Vice President for 618-10 Burial Ground  
and Environmental Restoration  
Disposal Facility

W. E. Kirby  
Vice President for 324  
Building Disposition  
Project

M. A. Wright  
Vice President for  
Project Technical  
Services

## PROJECT SUMMARY

Support of Truthful Cost or Pricing Data (TCoPD) deliverables for change order definitization of River Corridor Closure Contract (RCCC) scope. The project continued the following progress: 100K waste site remediation; 105KW Fuel Storage Basin deactivation and demolition long-range planning; 618-10 Burial Ground and 316-4 Waste Site remediation; 300-296 design for the 324 Building structural modifications and mockup; and equipment procurements, trailer installation, and infrastructure upgrades; saw testing and airlock entries for debris cleanout.

## EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
17-EMS-KBOPR-OB1-T1	Increase compliance at KBOPR Project.	Develop compliance matrices for 100K CERCLA documents.	9/30/17	85%
17-EMS-KBOPR-OB2-T1	Universal Waste and Recycling Compliance and Spill Prevention.	Monitor and evaluate universal waste.	9/30/17	56%

## TARGET ZERO PERFORMANCE

	Current Month	Rolling 12 Months	Comment
Days Away, Restricted or Transferred	0	0	N/A
Total Recordable Injuries	0	*1	*Recordable incident 24238 on November 17, 2016, was recorded under PBS RL-0013; however, the incident occurred at ERDF, which is part of PBS RL-0041.
First Aid Cases	1	23	<ul style="list-style-type: none"> <li>4/25/17 – Employee experienced a cramp in the right thigh stepping on the first step of the vehicle access stairs. Notifications were made and the employee was taken to site medical and released with restrictions. (24437)</li> </ul>
Near Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### RL-0041 Accomplishments

- 100K AA Waste Site Area Remediation:
  - o Waste Site Reclassification Form and closure of waste site 100-K-110 approved by EPA with no action required.
- 100K AB Waste Site Area Remediation:
  - o Remaining Sites Verification Package and closure for waste sites 100-K-101, 25, 27, 35, 79, and 98, and 120-KE-1, 2, 3, 4, 5, 6, and 9 submitted to EPA for approval.
- 100K AF Waste Site Area Remediation:
  - o Completed excavation of waste site 100-K-103.
- 100K AH Waste Site Area Remediation:
  - o Started excavation of waste site 1607-K5.
- 105KW Fuel Storage Basin Deactivation
  - o Issued BCR-041-17-012R0 to incorporate CO #319, *Garnet Filter Media Retrieval System*.
  - o Issued BCR-041-17-014R0 to incorporate CO #320, *Sand Filter Media Retrieval System*.
  - o Issued BCR-041-17-015R0 to incorporate CO #326, *105KW Fuel Storage Basin*.
  - o Initiated Garnet Filter Media Removal System procurements. Completed the Statement of Work and the Request for Proposal for system hardware, and American Boiler Workers (ABW) submitted bids for fabricating four additional Sludge Transport & Storage Container (STSCs).
  - o The project has begun inputting the KW Basin Deactivation & Demolition Long Range Plan (LRP) Work Breakdown Structure (WBS) Dictionaries and Basis of Estimate (BOEs) to the LRP SharePoint and begun building the schedule in the LRP Primavera P6 node (Tri-Party Agreement M-16-178 and M-16-181). This information is to be used for fiscal year (FY) 2018 through FY2022 (five-year planning process).
  - o Issued the Gamma Ray Spectrometer (gamma camera) test survey plan.
- Remaining Closure Operations (RCO):
  - o Resource Conservation and Recovery Act of 1976 (RCRA) Permit Closure
    - Obtained Ecology acceptance to clean-close the 1324-N/NA Liquid Waste Disposal Facility.
    - Proposed Class 2 modifications to clean-close 1301-N and 1325-N Liquid Waste Disposal Facilities approved by Ecology in preparation for 60-day public comment period.
  - o MO226 Demolition
    - Completed building demolition and debris loadout (Tri-Party Agreement M-93-00).
- 618-10 Burial Ground:
  - o 17,856 tons of contaminated soil sent to the Environmental Restoration Disposal Facility (ERDF) from the 618-10 Trench Mass Excavation.
  - o Completed 23 Steel Vertical Pipe Units (VPU) retrieval segments with a total of 47 retrieval segments completed out of 56.
- 316-4 Waste Site:
  - o Began excavation of contaminated soil column – 351 cans (7,484 tons) sent to ERDF.
  - o Excavated 54,054 tons of overburden soil.

- o 278,726 tons excavated of estimated 469,721 total tons (includes overburden and contaminated soils).
- 600-63 Waste Site:
  - o Continued planning and design activities for engineering design and remaining engineering checklist items.
  - o Prepared for overhead lighting removal to enable access to the waste site.
- 324 Building Min Safe:
  - o Made several manned entries in to the Radiochemical Engineering Cells (REC) Airlock (first time in more than a decade).
  - o Performed annual shutdown of steam to the facility.
  - o Issued Vital Safety System quarterly reports for each of the five Vital Safety Systems.
  - o Completed the Annual inspection of the five REC cell photophilic alarms.
  - o Completed the Annual testing of the Fume Hood airflow.
  - o Implemented change to procedure W-07 refining dose limits for waste packages.
  - o Drafted revision for approval of the 324 Effluent Specification (HNF-3444).
  - o Developed Performance Page and performed solenoid repair for REC Airlock Shield Door.
  - o Performed 11 Preventative Maintenance package activities, monthly and 3-year.
- 300-296 Soil Remediation Project:
  - o The project team successfully hosted a visit by Sue Cange, acting assistant secretary for Environmental Management, which included a tour of the 324 Building and the Floor Saw Test Pad on April 18 - 19, 2017.
  - o The Annual Update of the 324 Building Safety Basis that incorporates the Soil Spill Accident Comparison to a waste spill has been reviewed by RL. Comment resolution has been completed, and revisions are underway to support RL in drafting the Safety Evaluation Report.
  - o The Preliminary Soil Remediation Accident Analysis and the Hazard Analysis have been issued. Preparations for the final hazard categorization and accident analysis is currently underway.
  - o Cost evaluations of contractor proposals for the three main soil removal systems (Remote Excavation Arms (REA), Transfer Mechanism, and Cameras and Lighting) were completed. Contract awards anticipated in late April and early May.
  - o An Expression of Interest (EOI) was issued on April 4, 2017, as a step to identify potential bidders for contracts planned this year for 324 Building (Interference Removal, Cell Sealing, Core Drilling, and Structural Modifications). Eleven responses were received and are currently under review. A Request for Proposal (RFP) is planned for release in May.
  - o The three trailers that will house the contractors performing Mockup modifications, and ultimately support team training for soil removal, were installed at the Mockup during the week of April 10, 2017.
  - o Construction activities to extend city of Richland utilities to the Mockup were initiated on April 3, 2017, and electrical utilities are planned to be connected on May 24, 2017.
  - o The RFP for Mockup modifications required to support equipment installations, including reinforcement of the structure to support Master Slave Manipulators (MSMs), installing the trench required for the transfer mechanism installation, and reinforcement of the concrete structure for core drilling was issued on April 6, 2017.
  - o On April 12, 2017, a walk down for potential bidders to perform the modifications needed for equipment installations was conducted, which includes reinforcement of the structure to support MSMs, placement of the trench for the transfer mechanism installation, and reinforcement of the concrete structure for core drilling.

- o The MSMs purchased for the Mockup and 324 Building have successfully completed Factory Acceptance Testing and were delivered to the site on April 11, 2017.
- o Formal testing of the floor saw continues to be successfully and safely conducted. Anticipated completion of the testing is expected by the first week of May, with issuance of the test report to follow.
- o The Airlock Track and Cart System successfully completed Factory Acceptance Testing on April 6, 2017, and was delivered to the 324 Building on April 19, 2017. Installation is expected to start in early June, with completion by mid-July.
- o Initial Mockup training and Nuclear Chemical Operator (NCO) qualification activities for airlock hot-cell entry has been completed as of March 29, 2017.
- o The 324 Building ALARA review and RWP have been reviewed and approved by the ALARA review board.
- o The 324 Building hot-cell entry procedures have been revised, reviewed by the Senior Management Review Team (SMRT), and issued to support the initial airlock entry.
- o Modified Airlock Hot Spot Shielding blocks were installed within the hot cell in preparation for the first airlock entry.
- o The initial airlock hot-cell entry in the 324 Building was safely and successfully completed on April 10, 2017. Radiological data obtained during this entry was evaluated to establish current conditions and shielding placement for dose management purposes. The next entry is anticipated in early May.
- o Project Technical Services (PTS) Support
  - Installation and set-up for seven trailers (three at 325 Building and four at 324 Building) have been completed. HLAN Services in the 300 Area are expected to be completed in early May.
  - Set-up for the three trailers is progressing, and HLAN Services are expected to be completed in mid-May.
- Environmental Restoration Disposal Facility:
  - o Receipt of 115,951 tons by CHPRC fiscal year to date (FYTD).
  - o Transported eight special packaging authorization (SPA) shipments.

## MAJOR ISSUES

No major issues to report on at this time.

## 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 major changes to the monthly stoplight chart in the month of April.															
<b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>															
RCC-316-4-09: 316-4 Discovery of Unexpected Waste/Contamination	Discovery of unexpected waste/contamination, waste/contamination quantities above what is assumed, waste/contamination that is above and beyond COCs and/or waste profile, and/or waste/contamination is found in the assumed clean area of the design. Resulting in greater than planned RAD controls resulting in cost and schedule impacts.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Very Low (<10%) <b>Worst Case Impacts:</b> \$240K, 48 day	<span style="color: red; font-size: 20px;">●</span>	<span style="color: black; font-size: 20px;">↔</span>	<b>Risk Event:</b> On Tuesday, November 29, 2016, CHPRC discovered debris (wood, metal, etc.) in the 316-4 overburden removal, and then on Wednesday, November 30, 2016, radiological contaminated soil and contaminated debris (plastic and piping) was encountered that was buried in the top six feet of overburden at the 316-4 waste site. On Wednesday, January 4, 2017, and Tuesday, January 24, 2017, additional contamination was discovered. <b>Contamination was discovered approximately four feet above the anticipated location on March 27, 2017.</b>  <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="width: 70%;">Risk recovery action(s)</th> <th style="width: 10%;">Risk Date</th> <th style="width: 10%;">FC Date</th> <th style="width: 10%;">%</th> </tr> </thead> <tbody> <tr> <td>Send backfill stockpile to ERDF.</td> <td rowspan="2" style="text-align: center;">11/29/16</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> <tr> <td>Update TCoPD to align with found conditions.</td> <td style="text-align: center;">5/30/17</td> <td style="text-align: center;">90</td> </tr> </tbody> </table> <b>Recovery Action Assessment:</b> CHPRC has realized cost and schedule impacts, resulting from this change in conditions. <i>Efforts continue to quantify schedule and cost impacts.</i> CHPRC has and continues to perform all actions that may mitigate impacts; however, CHPRC plans to capture any scope and cost changes <b>resulting from the contamination discoveries prior to March 2017</b> in the TCoPD for the corresponding change proposal (CP 041 304 1600).	Risk recovery action(s)	Risk Date	FC Date	%	Send backfill stockpile to ERDF.	11/29/16	Complete	100	Update TCoPD to align with found conditions.	5/30/17	90
Risk recovery action(s)	Risk Date	FC Date	%												
Send backfill stockpile to ERDF.	11/29/16	Complete	100												
Update TCoPD to align with found conditions.		5/30/17	90												
<b>Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)</b>															
RCC-300-296-03: Mockup testing and qualification of remote equipment / process identifies major modification requirements.	Issues such as equipment interferences, equipment reliability, etc. arise during mockup or component testing, resulting in negative cost or schedule impacts during future production work. There is the potential for more frequent equipment repairs/full equipment change-outs than planned, which could result in cost and schedule impacts.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Low (10% to 25%) <b>Worst Case Impacts:</b> \$86K, 80 days	<span style="color: green; font-size: 20px;">●</span>	<span style="color: black; font-size: 20px;">↔</span>	<b>Risk Trigger Metric:</b> Risk could be triggered through the conduct of component testing or testing/training performed at the mockup that produced inadequate or unexpected test results.  <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="width: 70%;">Mitigation action(s)</th> <th style="width: 10%;">FC Date</th> <th style="width: 10%;">%</th> </tr> </thead> <tbody> <tr> <td>Conduct Concrete Floor Saw Test (cut rate, embedment cutting), and determine P.O.P.</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> <tr> <td>Perform Construction Acceptance Test at Mockup Facility – this includes REA System with HPUs, Cameras, and Lighting and Transfer Mechanisms.</td> <td style="text-align: center;">11/30/17</td> <td style="text-align: center;">0</td> </tr> </tbody> </table> <b>Mitigation Assessment:</b> The Mockup will be used to validate equipment performance and to support training personnel for installation, removal, and operation of soil remediation equipment in the 324 Building. Remotely operated equipment (e.g. floor saw and REAs) could experience higher failure rates and/or performance issues from lack of thorough demonstration testing. <b>Two out of three vendor proposals for the main soil removal systems (Remote Excavation Arm and Lights and Cameras) were awarded in April; the Transfer Mechanism award is planned for the week of May 8.</b> Floor saw testing was successfully complete in April and the test program is tracking to be completed by the end of April. Initial results indicate that a single blade will be sufficient for the planned utilization in the 324 building with significant additional margin. A second floor saw test will be conducted at the mockup in FY18 to confirm results.	Mitigation action(s)	FC Date	%	Conduct Concrete Floor Saw Test (cut rate, embedment cutting), and determine P.O.P.	Complete	100	Perform Construction Acceptance Test at Mockup Facility – this includes REA System with HPUs, Cameras, and Lighting and Transfer Mechanisms.	11/30/17	0		
Mitigation action(s)	FC Date	%													
Conduct Concrete Floor Saw Test (cut rate, embedment cutting), and determine P.O.P.	Complete	100													
Perform Construction Acceptance Test at Mockup Facility – this includes REA System with HPUs, Cameras, and Lighting and Transfer Mechanisms.	11/30/17	0													

<p>RCC-300-296-11: Current REC cell seismic analysis is inadequate</p>	<p>Regulatory agencies require different seismic analysis criteria than the UBC 1961 methodology that was originally used, resulting in additional design and more significant structural alterations to 324 Building, which would negatively impact project cost and schedule</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Low (10% to 25%) <b>Worst Case Impacts:</b> \$288K, 48 days</p>			<p><b>Risk Trigger Metric:</b> This risk would be triggered at the same time it is realized with regulatory agencies requiring different seismic analysis criteria than what was used in the original estimates.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Engage Defense Nuclear Facility Safety Board (DNFSB) early concerning seismic design criteria.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> <b>No changes in the month of April.</b> The original design of the 324 Building was based on the 1961 Uniform Building Code (UBC). Facility structural modifications have been analyzed using the UBC 1961 methodology (Section 7.8, KUR-1782F-CALC-C001, 324 BUILDING REC STRUCTURAL STABILITY EVALUATION); as the most appropriate and cost effective approach given the overall intent to remediate the building following soil removal. A recurring update process, on a bi-monthly basis, was proposed and accepted by the DNFSB representatives. The first update occurred on February 23, 2017, and introduced the DNFSB field and technical representative to the intended approach of utilizing jet grouting to provide structural support during excavation. No immediate concerns were identified by members of the board; however, it is expected that engagement will be more aggressive as design continues maturing. An update on the progress of the design was provided at the bi-monthly update in late April.</p>	Mitigation action(s)	FC Date	%	Engage Defense Nuclear Facility Safety Board (DNFSB) early concerning seismic design criteria.	Ongoing	N/A
Mitigation action(s)	FC Date	%								
Engage Defense Nuclear Facility Safety Board (DNFSB) early concerning seismic design criteria.	Ongoing	N/A								
<b>High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)</b>										
<b>Lifecycle Risk Triggers (Risk could be realized at any point of the project)</b>										
<p>RCC-618-10-07: Contamination Event at 618-10 Waste Site</p>	<p>During fieldwork activities, a contamination event occurs that requires corrective actions, resulting in schedule and cost impacts.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Low (10% to 25%) <b>Worst Case Impacts:</b> \$1,288K, 64 days</p>			<p><b>Risk Trigger Metric:</b> The risk could be triggered by high winds or operational upsets (i.e. spills or airborne release).</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Enhanced radiological controls implemented on project.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> <b>No changes in the month of April.</b> Much of the 618-10 work is performed in hazardous and radioactive environments. By its nature, the work can be dangerous. Although CHPRC procedures, safety programs, and training programs are designed to minimize the potential loss of control of hazardous/radioactive substances, such an occurrence could be deemed to be significant enough to warrant corrective actions outside the baseline (i.e. a prolonged work shutdown).</p>	Mitigation action(s)	FC Date	%	Enhanced radiological controls implemented on project.	Ongoing	N/A
Mitigation action(s)	FC Date	%								
Enhanced radiological controls implemented on project.	Ongoing	N/A								
<p>RCC-618-10-09: Discovery of Unexpected Waste/Contamination</p>	<p>Discovery of unexpected waste/contamination, waste/contamination quantities above what is assumed, waste/contamination that is above and beyond COCs or waste profile, or waste/contamination is found in the assumed clean area of the design. Resulting in greater than planned RAD controls resulting in cost and schedule impacts.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Very Low (&lt;10%) <b>Worst Case Impacts:</b> \$1,280K, 64 days</p>			<p><b>Risk Trigger Metric:</b> <b>This risk has previously been realized as more drums than planned were discovered. This risk has the potential to occur again during mass excavation if additional waste/contamination is discovered.</b></p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Closely managing waste inventories and discoveries, and making adjustments as required.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> <b>No changes in the month of April.</b> The estimate for the remediation of the 618-10 waste site included an assumed amount of additional drums still to be remediated. The project identified unexpected additional drums that were not planned or estimated. The project will continue to closely monitor and manage waste inventories and any new discoveries.</p>	Mitigation action(s)	FC Date	%	Closely managing waste inventories and discoveries, and making adjustments as required.	Ongoing	N/A
Mitigation action(s)	FC Date	%								
Closely managing waste inventories and discoveries, and making adjustments as required.	Ongoing	N/A								
<b>Unassigned Risks (Pending ownership of identified risks/opportunities)</b>										
No unassigned risks identified in the month of April.										

## PROJECT BASELINE PERFORMANCE

### Current Month

(\$M)

WBS 041/RL-0041 Nuclear Facility D&D – River Corridor	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	12.7	9.7	9.3	(3.0)	-23.5%	0.4	3.6%

Numbers are rounded to the nearest \$0.1 million

#### CM Schedule Performance (-\$3.0M/-23.5%)

The current month unfavorable schedule variance is partially due to the delayed treatment of drum waste sent off the 618-10 Burial Ground site to an offsite waste processing subcontractor (-\$0.5M). Delays in overburden removal at the 316-4 Waste Site due to the contaminated column being wider than anticipated also contributed to the schedule variance (-\$0.4M). The 300-296 experienced delays in planned airlock and cell cleanout activities resulting from: Formal stop work due to delays in completing a shower facility; recovery actions to correct a design deficiency in temporary shielding blocks for dose management; the availability of trained and qualified resources; and additional time invested in the conduct of training and walkthrough activities at the mockup. Overall impact is fewer entries and less than planned progress in airlock and cell cleanout activities. Effective corrective actions have been completed to address all issues. Additionally, the 300-296 manipulators were received in April, but not green-tagged until April 24, 2017, the day after month-end, resulting in a schedule variance. The scheduled payment for the procurement/receipt occurred later than planned.

Approximately (-\$0.7M) of the unfavorable variance is due to 100K Closure soil remediation activities. The variance was caused by site closures and weather delays from snow, ice, and frozen ground in the winter months: The start of remediation activities in Waste Site Areas AA and AH was delayed and the progression of remediation at waste site 100-K-103 in Area AF was slowed. Additionally, the mobilization of the new contractor, unrelated to weather, did not occur as planned due to delays associated with training and medical processing of the new personnel. The culmination of these issues have shifted the entire soil remediation schedule, and the planned efficiencies from higher volumes of soil to ERDF will now occur during summer months.

#### CM Cost Performance (+\$0.4M/3.6%)

The current month cost variance is within reporting thresholds.

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

WBS 041/ RL-0041 Nuclear Facility D&D – River Corridor	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Variance at Completion (VAC)
Total	421.6	425.5	380.5	3.9	0.9%	44.9	10.6%	554.7	496.9	57.8

Numbers are rounded to the nearest \$0.1 million

### CTD Schedule Performance (+\$3.9M/+0.9%)

The schedule variance is within reporting thresholds.

### CTD Cost Performance (+\$44.9M/+10.6%)

The favorable cost variance is primarily due to completing Confirmatory Sampling No Action (CSNA) waste sites early and under cost. In addition, less demolition was required for the KE Sedimentation Basin, and there were underruns in G&A and Direct Distributable costs. This was partially offset by the cost overruns in prior years for the Utilities Project. The 618-10 Complex has also experienced favorable cost variances due to shared resources and lower drum processing costs than anticipated (\$7.3M).

### Variance at Completion (+\$57.8M/+10.4%)

The Variance at Completion is primarily due to implementation of planned efficiencies.

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

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

WBS 041/RL-0041 Nuclear Facility D&D – River Corridor	FY2017		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	146.3	109.8	36.5
Incremental Scope Pending Change Management	0	14.7	(14.7)
RL-0041 - Total	146.3	124.4	21.9

Numbers are rounded to the nearest \$0.1 million.

### Funds/Variance Analysis:

FY2017 projected funding for PBS RL-0041 is \$146.3 million. The increase in the variance at completion (VAC) is due to a plus up of funding for the overall PBS of \$6.7 million combined with the PRC funding forecast challenge.

### Critical Path Schedule:

Critical Path Analysis can be provided upon request.

## MILESTONE STATUS

Tri-Party Agreement milestones represent significant events in project execution. RL Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The Performance Measurement Baseline (PMB) annual update, implemented in September 2013, and subsequently approved baseline change requests (BCR) define CHPRC planning with respect to Tri-Party Agreement milestones. The following table is a one-year look ahead of commitments and Tri-Party Agreement enforceable milestones and non-enforceable target due dates.

Number	Title	Due Date	Actual Date	Status/ Comment
M-016-00A	Complete all response actions for 100 Areas Except GW in M-016-00 and 100 K addressed in M-016-00C	3/31/2017	3/8/2017 (A)	Completed ahead of Schedule
M-016-164	Complete 100-N Interim Response Actions & Close 100-N Ancillary Facilities Area of Contamination	3/31/2017	3/8/2017 (A)	Completed ahead of Schedule

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

None currently identified.

## DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	RL Due Date
RL and Regulator Review of Closeout Sampling Instructions for 600-63 Waste Site	5/2/17	6/15/17
RL and Regulator Review of Closeout Sampling Instructions for 316-4 Waste Site	6/20/17	8/3/17
RL and Regulator Review of Closeout Sampling Instructions for 618-10 Burial Ground	7/19/17	9/1/17
RL/EPA Review & Approve Backfill Concurrence for 316-4 Waste Site	10/20/17	10/27/17
RL/EPA Review & Approve Backfill Concurrence for 600-63 Waste Site	11/9/17	11/22/17
RL and Regulator Review of CVP and Waste Site Reclassification Form for 600-63 Waste Site	11/9/17	11/23/17
RL and Regulator Review of CVP and Waste Site Reclassification Form for 316-4 Waste Site	11/15/17	12/29/17
RL/EPA Review & Approve Backfill Concurrence for 618-10 Burial Ground	1/23/18	1/30/18
RL and Regulator Review of CVP and Waste Site Reclassification Form for 618-10 Burial Ground	3/14/18	4/27/18

# Section G

## Fast Flux Test Facility Closure (RL-0042)



R. M. Geimer  
Vice President for  
K Basin Operations and  
Plateau Remediation

April 2017  
CHPRC-2017-04, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

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

## EMS OBJECTIVES AND TARGET STATUS

None currently identified.

## TARGET ZERO PERFORMANCE

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

## KEY ACCOMPLISHMENTS

### RL-0042 Accomplishments

- Issued a request for proposal (RFP) to retain the services of a well installation contractor to install the replacement P16 pump.
- Received the replacement FFTF contractor required to resolve maintenance issues with the 481 Building motor control centers; started resolution of the non-compliance report (NCR) for non-compliant Nationally Recognized Testing Lab (NRTL) labeling.
- Ordered the remaining parts necessary to complete the repairs of the T-58 and T-87 tank heaters.
- Continued development of an engineering change request to replace the 481 Building electrical fire pump control panel (C-670) with an up-to-date control panel that meets current National Fire Protection Association standards.
- Issued a purchase requisition to purchase a new Stationary Operating Engineer (SOE) change trailer for the 400 Area.
- Continued development of a Scope of Work (SOW) and Engineering Change Request (ECR) for installation of a new 400 Area SOE change trailer.

## MAJOR ISSUES

None currently identified.

## RISK MANAGEMENT STATUS

No key risks currently identified.

## PROJECT BASELINE PERFORMANCE

Current Month

(\$M)

RL-0042 FFTF Closure	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Total	0.2	0.2	0.2	(0.0)	-3.5%	0.0	8.9%

Numbers are rounded to the nearest \$0.1M

### CM Schedule Performance: (-\$0.0M/-3.5%)

The schedule variance is within reporting thresholds.

### CM Cost Performance: (\$0.0M/+8.9%)

The cost variance is within reporting thresholds.

## Contract-to-Date

(\$M)

RL-0042 FFTF Closure	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Variance at Completion (VAC)
Total	23.3	23.3	19.1	(0.0)	-0.2%	4.2	17.9%	26.5	23.2	3.2

Numbers are rounded to the nearest \$0.1 million

### CTD Schedule Performance (-\$0.0M/-0.2%)

The schedule variance is within reporting thresholds.

### CTD Cost Performance (+\$4.2M/+17.9%)

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

### Variance at Completion (+\$3.2M/+12.2%)

The Variance at Completion is within reporting thresholds.

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

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

RL-0042 FFTF Closure	FY2017		Variance
	Projected Funding	Spending Forecast	
Spending Forecast	3.9	1.9	2.0
Incremental Scope Pending Change Management	0.0	0.0	0.0
RL-0042 – Total	3.9	1.9	2.0

Numbers are rounded to the nearest \$0.1 million

### Funds Analysis

Fiscal year (FY) 2017 projected funding for project breakdown structure (PBS) RL-0042 is \$3.9 million. The spending forecast of \$1.9 million is in line with the FY2017 BAC of \$2.1 million.

### Critical Path Schedule

Critical path analysis is not applicable to this project. The remaining contract scope is performance of interim surveillance and maintenance activities pending facility disposition.

## MILESTONE STATUS

None currently identified.

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

None currently identified.

## DOE ACTIONS/DECISIONS

None currently identified.

# Appendix A

## Contract Performance Reports

Format 1 - Work Breakdown Structure

Format 2 - Organizational Categories

Format 3 - Baseline

Format 4 - Staffing

Format 5 - Explanation and Problem Analysis



April 2017  
CHPRC-2017-04, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

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

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

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>										
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME Plateau Remediation Contract		a. FROM (YYYYMMDD) 2017 / 03 / 27										
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 04 / 23										
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 5,582,760	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 175,450	d. TARGET PROFIT/FEE 241,315	e. TARGET PRICE 5,824,075	f. ESTIMATED PRICE 5,847,080	g. CONTRACT CEILING 5,824,075	h. ESTIMATED CONTRACT CEILING 5,847,080									
<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) Dickerson, Kala K		b. TITLE Prime Contract Compliance Manager									
a. BEST CASE		5,543,045			c. SIGNATURE		d. DATE SIGNED (YYYYMMDD)									
b. WORST CASE		5,642,645														
c. MOST LIKELY		5,605,765	5,758,210	152,445												
<b>8. PERFORMANCE DATA</b>																
Control Account.PBS	CURRENT PERIOD				CUMULATIVE TO DATE				REPROGRAMMING ADJUSTMENTS			AT COMPLETION				
ITEM (1)	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	776	4,011	10,547	3,235	-6,536	979,931	936,865	1,014,671	-43,066	-77,806	0	0	0	980,454	1,068,870	-88,416
RL-0012 SNF Stabilization & Disp	6,590	4,758	5,988	-1,832	-1,230	667,546	668,400	639,542	854	28,858	0	0	0	740,417	706,837	33,580
RL-0013 Solid Waste Stab & Disp	8,747	7,788	7,439	-959	350	1,149,185	1,147,354	1,072,841	-1,831	74,514	0	0	0	1,345,219	1,293,067	52,152
RL-0030 Soil & Water Rem-Grndwtr/Vadose	13,377	10,487	10,183	-2,890	304	1,364,793	1,338,455	1,304,653	-26,339	33,801	0	0	0	1,566,411	1,501,365	65,046
RL-0040 Nuc Fac D&D - Remainder Hanfrd	2,407	1,776	2,331	-631	-554	438,320	433,063	403,097	-5,256	29,966	0	0	0	480,771	451,761	29,010
RL-0041 Nuc Fac D&D - RC Closure Proj	12,669	9,691	9,339	-2,978	352	421,604	425,463	380,517	3,859	44,946	0	0	0	551,476	493,665	57,811
RL-0042 Nuc Fac D&D - FTF Proj	171	165	150	-6	15	23,338	23,298	19,120	-40	4,179	0	0	0	26,455	23,236	3,219
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														4,243	4,243	0
e. SUBTOTAL	44,737	38,677	45,977	-6,060	-7,300	5,044,717	4,972,898	4,834,441	-71,819	138,458	0	0	0	5,695,446	5,543,045	152,401
f. MANAGEMENT RESERVE														62,720		
g. TOTAL	44,737	38,677	45,977	-6,060	-7,300	5,044,717	4,972,898	4,834,441	-71,819	138,458	0	0	0	5,758,166		
<b>9. RECONCILIATION TO CONTRACT BUDGET BASELINE</b>																
a. VARIANCE ADJUSTMENT																
b. TOTAL CONTRACT VARIANCE																
								-71,819	138,458					5,758,166	5,543,045	215,121

\* In regards to RL-0041, CHPRC has implemented the River Corridor Closure Contract (RCCC) transitioned scope into the Performance Measurement Baseline (PMB) for Earned Value Management (EVM) reporting purposes. When the change orders (CO #304, #305, #306) are definitized, BCRs will be processed to align the PMB with the definitized values.

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

CLASSIFICATION (When Filled In)

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

DOLLARS IN Thousands of \$

FORM APPROVED  
OMB No. 0704-0188

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME Plateau Remediation Contract		a. FROM (YYYYMMDD)  2017 / 03 / 27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD)  2017 / 04 / 23	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18			

WBS.Resp Org Group	CURRENT PERIOD						CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL COST WORK PERFORMED	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)	
	WORK SCHEDULED (2)	WORK PERFORMED (3)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	SCHEDULE (10)	COST (11)									
ITEM (1)																	
34 - Env Program & Strategic Plng	837	956	1,154	118	-198	70,545	70,350	65,461	-195	4,888	0	0	0	82,843	79,471	3,372	
35 - Business Services	0	0	0	0	0	472,524	472,524	448,542	0	23,982	0	0	0	472,524	455,542	16,982	
36 - Prime Contract & Proj Integr	143	143	111	0	32	6,085	6,085	3,450	0	2,636	0	0	0	8,414	5,646	2,769	
3B - PFP Closure Project	776	4,011	10,543	3,235	-6,531	892,672	849,606	935,240	-43,066	-85,634	0	0	0	893,195	982,399	-89,203	
3C - Waste & Fuels Management Project	8,724	7,765	7,411	-959	354	1,040,696	1,038,865	964,508	-1,831	74,357	0	0	0	1,236,373	1,184,332	52,041	
3D - Soil & Groundwater Remediation	12,478	9,470	8,959	-3,008	511	1,194,310	1,168,166	1,133,077	-26,144	35,089	0	0	0	1,382,783	1,314,983	67,800	
3G - K Basin Oper & Plateau Remediation Project	10,965	7,841	10,266	-3,124	-2,426	1,291,431	1,293,000	1,218,974	1,568	74,026	0	0	0	1,473,594	1,386,595	86,999	
3H - 618-10 and ERDF	6,960	6,068	4,704	-892	1,364	51,033	50,905	41,661	-128	9,244	0	0	0	100,012	91,711	8,301	
3J - Building 324 Disposition Project	3,854	2,423	2,829	-1,431	-405	25,421	23,397	23,528	-2,024	-131	0	0	0	41,464	38,124	3,340	
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														4,243	4,243	0	
e. SUBTOTAL (Performance Measurement Baseline)	44,737	38,677	45,977	-6,060	-7,300	5,044,717	4,972,898	4,834,441	-71,819	138,458	0	0	0	5,695,446	5,543,045	152,401	
f. MANAGEMENT RESERVE														62,720			
g. TOTAL	44,737	38,677	45,977	-6,060	-7,300	5,044,717	4,972,898	4,834,441	-71,819	138,458	0	0	0	5,758,166			

\* In regards to RL-0041, CHPRC has implemented the River Corridor Closure Contract (RCCC) transitioned scope into the Performance Measurement Baseline (PMB) for Earned Value Management (EVM) reporting purposes. When the change orders (CO #304, #305, #306) are definitized, BCRs will be processed to align the PMB with the definitized values.

CONTRACT PERFORMANCE REPORT																	Form Approved OMB No. 0704-0188	
FORMAT 3 - BASELINE																	DOLLARS IN THOUSANDS	
1. CONTRACTOR CH2M HILL Plateau Remediation Company b. LOCATION: Richland, WA				2. CONTRACT a. NAME: Plateau Remediation Contract b. NUMBER: RL14788 c. TYPE: CPAF d. SHARE RATIO:				3. PROGRAM a. NAME: Plateau Remediation Contract b. PHASE c. EVMS ACCEPTANCE NO YES X 9/18/2009				4. REPORT PERIOD a. FROM: 2017/03/27 b. TO: 2017/04/23						
5. CONTRACT DATA																		
a. ORIGINAL NEGOTIATED COST 4,312,366				b. NEGOTIATED CONTRACT CHANGE \$1,270,393		c. CURRENT NEGOTIATED COST (A + B) \$5,582,760		d. ESTIMATED COST AUTH UNPRICED WORK \$175,450		e. CONTRACT BUDGET BASE (C + D) \$5,758,210		f. TOTAL ALLOCATED BUDGET \$5,758,166		g. DIFFERENCE (E - F) \$44				
h. CONTRACT START DATE 6/19/2008				i. DEFINITIZATION DATE 6/19/2008			j. PLANNED COMPL DATE 9/30/2018			k. CONT COMPLETION DATE 9/30/2018			l. EST COMPLETION DATE 9/30/2018					
6. PERFORMANCE DATA																		
ITEM (1)	BCWS CUM TO DATE (2)	BCWS FOR REPORT PERIOD (3)	SIX MONTH FORECAST						BUDGETED COST FOR WORK SCHEDULED (NON - CUMULATIVE)						UNDISTRIB BUDGET (16)	TOTAL BUDGET (17)		
			+1 May-17 (4)	+2 Jun-17 (5)	+3 Jul-17 (6)	+4 Aug-17 (7)	+5 Sep-17 (8)	+6 Oct-17 (9)	FY09-13 (10)	FY14 (11)	FY15 (12)	FY16 (13)	FY17 (14)	FY18 (15)				
a. PM BASELINE																		
b. BASELINE CHANGES AUTH DURING REPORT PERIOD																		
BCR-012-17-008R0, SRP T-Plant 221-T Dock 2 Rebuild MR Draw																		
BCR-012C-17-009R0, ECRTS Procurement and Annex & In Basin Installation MR Draw																		
BCR-040-17-011R0, PBS RL-040 Baseline Schedule Clean-Up																		
BCR-041-17-012R0, Incorporate CO #319 Garnet Filter																		
BCR-041-17-014R0, Incorporate CO #320 Sand Filter																		
BCR-041-17-015R0 Incorporate CO #326 105K West Fuel Storage																		
BCR-041-17-016R0, Incorporate CO #305 Increase the NTE Cost Authority																		
BCR-041-17-018R0, Modify 316-4 Revegetation Logic Ties																		
BCR-041-17-019R0, Mod 572 Definitize Gamma-Ray Imaging Spectrometer																		
BCRA-030-17-016R0, PBS RL-030 Correct Activity Descriptions																		
BCRA-041C-17-013 Base Year Shift in Support of FY2018 Annual Update																		
BCR-PRC-17-022R0, Incorporate CO #321, Management of RCRA Site Wide Permit Rev. 9																		
BCRA-030-17-015R0, PBS030 WBS Dictionary Update																		
BCRA-PRC-17-024R0, HPIC Updates April 2017																		
BCR-PRC-17-023R0, Undistributed Budget Adjustments April 2017																		
c. PM BASELINE (END OF PERIOD)																		
7. MANAGEMENT RESERVE																		
8. TOTAL																		
	4,999,980	43,540	40,195	43,847	32,170	31,944	46,228	26,526	3,391,477	391,653	471,323	504,826	478,626	446,351	3,319	5,687,574		
													0			0		
													371			371		
													0			0		
													750			750		
													253	497		750		
													707	43		750		
													4,246			4,246		
													0			0		
													130	0		130		
													0			0		
													0	0		0		
													(50)			(50)		
																0		
																0		
															925	925		
	5,044,717	44,737	41,475	45,782	33,143	32,679	46,516	26,688	3,391,477	391,653	471,323	504,826	485,033	446,891	4,243	5,695,446		
																62,720		
																5,758,166		

\* In regards to RL-0041, CHPRC has implemented the River Corridor Closure Contract (RCCC) transitioned scope into the Performance Measurement Baseline (PMB) for Earned Value Management (EVM) reporting purposes. When the change orders (CO #304, #305, #306) are definitized, BCRs will be processed to align the PMB with the definitized values.

CLASSIFICATION (When Filled In)

CONTRACT PERFORMANCE REPORT FORMAT 4 - STAFFING										FORM APPROVED OMB No. 0704-0188	
<b>1. CONTRACTOR</b>			<b>2. CONTRACT</b>				<b>3. PROGRAM</b>			Dollars in: FTE	
<b>a. NAME</b> CH2M HILL Plateau Remediation Company			<b>a. NAME</b> Plateau Remediation Contract				<b>a. NAME</b> Plateau Remediation Contract			<b>4. REPORT PERIOD</b>	
<b>b. LOCATION (Address and ZIP Code)</b> Richland, WA			<b>b. NUMBER</b> RL14788				<b>b. PHASE</b>			<b>a. FROM (YYYYMMDD)</b> 2017 / 03 / 27	
			<b>c. TYPE</b> CPAF		<b>d. SHARE RATIO</b>		<b>c. EVMS ACCEPTANCE</b> NO <input type="checkbox"/> X YES (YYYYMMDD) 2009 / 09 / 18			<b>b. TO (YYYYMMDD)</b> 2017 / 04 / 23	

5. PERFORMANCE DATA															
WBS.Resp Org Group  ORGANIZATIONAL CATEGORY (1)	ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	FORECAST (Non-Cumulative)										AT COMPLETION (15)		
			SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS						
			+1 MAY 2017 (4)	+2 JUN 2017 (5)	+3 JULY 2017 (6)	+4 AUG 2017 (7)	+5 SEPT 2017 (8)	+6 OCT 2017 (9)	1st Qtr FY18 (10)	FY18 (11)	FY19-LC (12)	ATCOMPLETE (13)			
300 - Office of the President	6	691	5	5	6	6	6	6	5	5	11	47	0	0	784
303 - Internal Audit	5	447	6	6	5	5	5	5	5	5	10	45	0	0	533
304 - General Counsel	4	421	5	5	5	5	5	5	5	5	10	45	0	0	505
31 - Communications	9	975	9	9	9	9	9	8	9	9	18	81	0	0	1126
32 - Safety Health Security & Quality	55	6891	70	68	69	68	68	65	63	63	132	590	0	0	8018
34 - Env Program & Strategic Plng	43	4598	46	45	44	44	44	44	49	49	102	452	0	0	5425
35 - Business Services	69	7354	74	74	74	74	74	70	62	62	130	580	0	0	8490
36 - Prime Contract & Proj Integr	63	4691	65	74	74	74	74	70	56	56	118	527	0	0	5748
38 - Project Technical Services	34	5405	41	41	41	41	41	39	34	34	72	320	0	0	6033
3B - PFP Closure Project	374	47812	318	296	213	157	107	58	40	40	30	0	0	0	49031
3C - Waste & Fuels Management Project	354	47915	319	310	298	302	284	284	318	318	653	2896	1006	0	54300
3D - Soil & Groundwater Remediation	307	34625	285	283	272	285	285	242	266	266	570	2569	1093	0	40488
3G - K Basin Oper & Plateau Remediation Project	332	45360	355	347	361	334	305	358	708	708	2864	344	0	0	51335
3H - 618-10 and ERDF	64	440	174	169	161	162	150	47	47	47	94	347	0	0	1743
3J - Building 324 Disposition Project	126	929	87	66	48	46	40	39	39	39	73	317	0	0	1645
<b>g. TOTAL DIRECT</b>	<b>1846</b>	<b>208554</b>	<b>1858</b>	<b>1797</b>	<b>1679</b>	<b>1612</b>	<b>1439</b>	<b>1375</b>	<b>2740</b>	<b>2740</b>	<b>11708</b>	<b>2444</b>	<b>0</b>	<b>0</b>	<b>235206</b>

\* In regards to RL-0041, CHPRC has implemented the River Corridor Closure Contract (RCCC) transitioned scope into the Performance Measurement Baseline (PMB) for Earned Value Management (EVM) reporting purposes. When the change orders (CO #304, #305, #306) are definitized, BCRs will be processed to align the PMB with the definitized values.

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

CLASSIFICATION (When Filled In)									
CONTRACT PERFORMANCE REPORT FORMAT 5 - EXPLANATIONS AND PROBLEM ANALYSES							FORM APPROVED OMB No. 0704-0188		
1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD			
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME Plateau Remediation Contract		a. FROM (YYYY/MM/DD)  2017/03/27			
b. LOCATION (Address and ZIP Code)  Richland, WA 99354		b. NUMBER DE-AC06-08RL14788		b. PHASE Base		b. TO (YYYY/MM/DD)  2017/04/23			
		c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE 2009/09/18 NO YES X					
	BCWS	BCWP	ACWP	SV in \$	SV in %	CV in \$	CV %	SPI	CPI
<b>Current:</b>	44,737	38,677	45,977	(6,060)	-13.5%	(7,300)	-18.9%	0.86	0.84
<b>Cumulative:</b>	5,044,717	4,972,898	4,834,441	(71,819)	-1.4%	138,458	2.8%	0.99	1.03
	<b>BAC</b>	<b>EAC</b>	<b>VAC in \$</b>	<b>VAC in %</b>	<b>TCPI</b>				
<b>At Complete:</b>	5,695,446	5,543,045	152,401	2.7%	1.02				
<b>Explanation of Variance/Description of Problem:</b>									
<p><b>Current Period Schedule Variance:</b> The current month negative schedule variance is primarily due to project breakdown structure (PBS) RL-0041, which delayed treatment of drum waste sent off the 618-10 Burial Ground site to an offsite waste processing subcontractor. Delays in overburden removal at the 316-4 Waste Site. The 300-296 experienced delays in planned airlock and cell cleanout activities. Additionally, the 300-296 manipulators were received in April, but not green-tagged until April 24, 2017, the day after month-end, resulting in a schedule variance. The scheduled payment for the procurement/receipt occurred later than planned. 100K Closure soil remediation activities also contributed to the variance caused by site closures and weather delays from snow, ice, and frozen ground in winter months. The start of remediation activities in Waste Site Areas AA and AH was delayed and the progression of remediation at waste site 100-K-103 in Area AF was slowed. Additionally, the mobilization of the new contractor, unrelated to weather, did not occur as planned due to delays associated with training and medical processing of the new personnel. The culmination of these issues have shifted the entire soil remediation schedule, and the planned efficiencies from higher volumes of soil to ERDF will now occur during summer months.</p> <p>Also contributing to the negative schedule variance is PBS RL-0030 delay of the 100-NR-2 Barrier maintenance and expansion activities, which were scheduled to start in FY2016 but were deferred due to funding limitations and pending resolution of cultural clearance items. Some cultural clearance and other planning activities are forecast to complete in FY2017, with fieldwork initiating in FY2018. Preparation of the internal draft 200-IS-1 RI/FS Report and Proposed Plan is scheduled during this period. The baseline planned a July 2016 start date for the 200-IS-1 RI/FS Report based on the work plan (WP) being approved with no characterization required. The WP is currently on hold due to scope dispute resolution (Tri-Party Agreement Milestone M-015-112). Additionally, positive performance earned in prior periods (work acceleration) for 200-PO-1 NRDWL and 100 HR-3 optimization, and 200-UP-1 SE chrome plume characterization drilling campaigns, 100-HR-3 D&amp;D, and 100-HR-3 well realignments, is returning to zero by the end of FY2017.</p> <p>This is partially offset by PBS RL-0011's completion of historical BCWS associated with the 26-inch process vacuum removal, characterization, asbestos, drain lines, E3/E4 duct scope, trench grouting, and drain line remediation in 234-5Z, as well as sample and process vacuum system removal in 291-Z. Because all work is historical, the current schedule variance will be favorable going forward. Additionally, performance of behind schedule demolition work scope associated with the demolition of 236-Z and 242-Z also contributes to this positive variance. This scope was to be performed in the third quarter of 2016; however, delays in getting 236-Z ready for demolition negatively impacted the start of both 236-Z and 242-Z demolition.</p> <p><b>Current Period Cost Variance:</b> The current month negative cost variance is primarily due to PBS RL-0011 delay in completion of the PFP Project to achieve slab on grade. The delay is causing needed extensions of both Minimum Safe, Maintenance, and D&amp;D project management resources, without BCWS, to support the remaining D&amp;D work scope until the facility becomes ready for demolition. In addition, asbestos abatement, E4 duct removal, and process vacuum removal are all requiring more time and additional resources to complete work. Additional resources (i.e., pipefitters, electricians, insulators, Radiological Control Technicians) have also been hired temporarily to recover schedule. Additional activities have been identified that require removal of approximately an additional 10,000 feet of asbestos that was not visible on any plant drawings when the baseline was developed, further delaying the demolition ready activities. Due to delays in ready-for-demo activities, resources supporting waste processing activities that were planned to be completed in FY2016 are continuing to charge for support of waste loadout, processing, and shipping. Additional unplanned shipping materials (waste shipping containers (TL-1800s, SLB2s, IP-1 bags, etc.)) were also required to support waste load-out activities. Unplanned shipments of drums to Perma-Fix Northwest also contributed to the unfavorable variance. Continuation of quarterly stipend certification payments is also contributing to this variance. In addition, due to the historical (December 2015) radiological issues resulting in compensatory measures that have been implemented at PFP, additional radiological and industrial hygiene resources have been assigned to support the PFP Project until the slab-on-grade milestone is met.</p> <p><b>Cumulative Schedule Variance:</b> The variance is within reporting thresholds.  <b>Cumulative Cost Variance:</b> The variance is within reporting thresholds.</p>									
<b>Impact:</b>									
<b>Current Period Schedule:</b> Delays in PBS RL-0011 continue to impact other PRC Priority work scope.									

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

**Current Period Cost:** Delays in critical path work and the lack of labor resources for PBS RL-0011 has delayed demolition of 234-5Z and 291-Z facilities due to available labor resources being redirected to support ready for demolition activities associated with 242-Z, and 236-Z (other project critical path work).

**Cumulative Schedule:** N/A

**Cumulative Cost:** N/A

**Corrective Action:**

**Current Period Schedule:** PBS RL-0011 needs to update staffing analysis to evaluate options to support work priorities and workforce restructuring as well as hire short-term craft personnel to support PFP and other project needs.

**Current Period Cost:** PBS RL-0011 will need to identify work arounds (overtime and re-sequencing of work) to recover delays, evaluate potential availability of craft resources currently assigned to other CHPRC Projects and with the MSA and submit request for excusable delay for cost and schedule impacts associated with events outside PRC's ability to manage.

**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 scope within budget and is currently projecting a Variance at Completion of \$152.4 million, with \$62.7 million of Management Reserve (MR) for a total positive variance of \$215.1 million. For April, the project was 13.5 percent behind schedule and 18.9 percent over planned cost. Contract to Date (CTD), the project was 1.4 percent behind schedule and 2.8 percent under planned cost.

There were eight of the 13 BCRs in the period that impacted the PMB; BCR-012C-17-009R0 – *ECRTS Procurement and Annex & In Basin Installation MR Draw*, BCR-041-17-012R0 – *Incorporate CO #319 Garnet Filter Media Retrieval System*, BCR-041-17-014R0 – *Incorporate CO #320 Sand Filter Media Retrieval*, BCR-041-17-015R0 – *Incorporate CO #326 105K West Fuel Storage Basin*, BCR-041-17-016R0 – *Incorporate CO #305 300-296 Waste Site Design Review*, BCR-041-17-019R0 – *Incorporate Mod 572 Definitize Gamma-Ray Imaging Spectrometer*, BCR-PRC-17-022R0 – *Incorporate CO #321, Management of RCRA Site Wide Permit Rev 9*, and BCR-PRC-17-023R0 – *Undistributed Budget Adjustments April 2017*.

\*During the Month of April CHPRC kicked off the FY2018 comprehensive EAC process (ZZCSMILE1117A, Kickoff FY18 Annual Comprehensive EAC), and is expected to finish mid-September (ZZCSMILE1117B, Submit Final FY18 Annual Comprehensive EAC).

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

Variance in Performance BAC and EAC: The variance at complete (VAC) between the BAC and EAC this month is a + \$152.4 million, +2.7% and is within reporting thresholds.

**Format 1 and 3 Contract Data:**

**Contract Price Adjustments**

CPS - In Process		
	Total Authorized Unpriced Work	\$175,450
Approved Adjustments to Contract Price (not reflected in B.4-1 Table)		
	Total Negotiated Cost Changes	-
	<b>Grand Total Adjustments</b>	<b>\$175,450</b>

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

**Undistributed Budget Activity**

BCR Number	Title	PBS	Fiscal Year	UB
BCR-PRC-17-023R0	<i>Undistributed Budget Adjustments April 2017</i>	RL-0040 RL-0041	2017-2018	\$925K

The Undistributed Budget increased by \$925K.

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

**Management Reserve Activity**

BCR Number	Title	PBS	Fiscal Year	MR
BCR-012C-17-009R0	<i>ECRTS Procurement and Annex &amp; In Basin Installation MR Draw</i>	RL-0012	2017 - 2018	\$-371K

Overall, there was a decrease in Management Reserve (MR) of \$371K during April.

**Fee Activity**

BCR Number	Title	PBS	Fiscal Year	Fee
N/A	N/A	N/A	2017 - 2018	N/A

Overall, there was no change to the Fee during April.

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

<b>Prepared by:</b> Project Control Staff	<b>Date:</b> 5/18/2017	<b>Approved by:</b>	<b>Date:</b>
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\* In regards to RL-0041, CHPRC has implemented the River Corridor Closure Contract (RCCC) transitioned scope into the Performance Measurement Baseline (PMB) for Earned Value Management (EVM) reporting purposes. When the change orders (CO #304, #305, #306) are definitized, BCRs will be processed to align the PMB with the definitized values.

# Appendix B

## Project Services and Support (WBS 000)



**T. L. Vaughn**  
Vice President for  
Safety, Health, Security  
and Quality

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

April 2017  
CHPRC-2017-04, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

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

**S. E. Johnson**  
Director of  
Communications

**R. M. Millikin**  
Vice President for  
Prime Contract and  
Project Integration

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

## 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 cross-cutting services.

### EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
17-EMS-ADMIN-OB1-T1	Reduce energy intensity.	Increase facility occupancy rates to greater than 83 percent by compressing occupancy and vacating underutilized facilities. Vacated/unoccupied facilities declared unusable and designated inactive placed in Care Taker system.	9/30/17	20%
17-EMS-ADMIN-OB2-T1	Maximize the acquisition and use of environmentally preferable products in the conduct of operations.	Establish/utilize green catalogs to maximum extent for products beyond office supply purchases on the website.	10/9/17	32%
17-EMS-PTS-OB1-T1	Universal Waste, Recycling Compliance, Spill Prevention, and Satellite Accumulation Area Inspections.	Monitor and evaluate universal waste, other recycling, and satellite accumulation areas for compliance with CHPRC procedures and WAC 173-303 regulations.	9/30/17	56%
17-EMS-PTS-OB2-T1	Monthly Chemical Management Inspection.	Ensure chemical products are accurately tracked, maintained, and excessed/disposed. Perform quarterly assessment on chemical inventory locations.	9/30/17	56%

## TARGET ZERO PERFORMANCE

	Current Month	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	0	N/A
Total Recordable Injuries	0	1	N/A
First Aid Cases	1	8	<ul style="list-style-type: none"> <li>4/13/17 - Employee was standing and bent over to pick up bag from floor and felt a pull in their back. Worker was seen at HPMC and released to return to work with restrictions. (24429)</li> </ul>
Near-Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

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

- There was one First Aid case during the month of April in the functional groups.
  - o Occupational Safety and Industrial Hygiene (OS&IH) accomplishments:
    - Continued ongoing implementation activities, which include gap training associated with DOE-0346, *Hanford Site Fall Protection Program*, Revision 2, that incorporated recent Occupational Safety and Health Administration (OSHA) regulatory changes to 1910 Subpart D, “Walking/Working Surfaces.”
    - Completed annual confined space permit assessment.
    - Provided direct support for the Plutonium Finishing Plant (PFP) Management Assessment regarding the demolition of 234-5Z & 291-Z buildings.
  - o Radiological Control accomplishments:
    - Continued to provide radiological work planning support to Waste and Fuels Project and Central Plateau Surveillance and Maintenance Project.
    - Completed reviews and approved Technical Evaluations (TEs) for:
      - Solid Waste Operations Complex hard to detect survey methods.
      - Soil and Groundwater Remediation Project Radiological Control Technician coverage.
    - Provided support to Environmental Restoration Disposal Facility and 300 Projects for Radiological Control First Line Manager oral board qualifications.
  - o Nuclear Operations Support & Compliance accomplishments:
    - Correspondence sent to Department of Energy Richland Operations Office (RL):
      - Letter, CHPRC-1701204, dated April 4, 2017, *Transmittal of the 2017 Annual Update to the Canister Storage Building Safety Basis and Unreviewed Safety Question Determination Summary*.
      - Letter, CHPRC-1700081A R3, dated April 11, 2017, *Transmittal of PRC-STP-00946, Revision 0, 105KW Facility Documented Safety Analysis, PRC-STP-00992, Revision 0, 105KW Facility Technical Safety Requirements, and HNF-SD-SNF-FHA-001, Revision 5, Fire Hazards Analysis for the 105KW Facility*.

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- Letter, CHPRC-1701172, dated April 17, 2017, *Transmittal of the 2017 Annual Update to the Plutonium Uranium Extraction Facility Documented Safety Analysis, CP-14977, Revision 10, the Unreviewed Safety Question Determination Summary, and the Fire Hazards Analysis for the Plutonium-Uranium Extraction Facility, CP-41822, Revision 2.*
- Letter, CHPRC-1701503, dated April 17, 2017, *Transmittal of the 2017 Annual Update to the Documented Safety Analysis for the Reduction-Oxidation Facility, HNF-13830, Revision 7; the Technical Safety Requirements for the Reduction-Oxidation Facility, CHPRC-03114, Revision 0; the Unreviewed Safety Question Determination Summary, and the Fire Hazards Analysis for the Reduction-Oxidation Facility, CP-45673, Revision 2.*
- Letter, CHPRC-1700120, dated April 20, 2017, *Transmittal of the 2017 Annual Update of the 224-B Facility Documented Safety Analysis, CP-18179, Revision 9, and the Unreviewed Safety Question Determinations Summary.*
- Letter, CHPRC-1701203, dated April 25, 2017, *Transmittal of the 2017 Annual Update of the Documented Safety Analysis for the Fast Flux Test Facility, FFTF-36419, Revision 4; the Unreviewed Safety Question Determinations Summary for the Fast Flux Test Facility; and the Fast Flux Test Facility Complex Facility Fire Protection Assessment.*
- Letter, CHPRC-1701350A R1, dated April 28, 2017, *Transmittal the 2016 Annual Update to the Solid Waste Operations Complex Master Documented Safety Analysis, HNF 14741, Revision 12; the Technical Safety Requirements for the Solid Waste Operations Complex, HNF-15280, Revision 12; the Unreviewed Safety Question Determinations Summary; and the Solid Waste Operations Complex Fire Hazards Analysis, HNF-21239, Revision 7.*
- Correspondence received from RL:
  - Letter, 17-SEI-0081\_RL, dated April 12, 2017, *Request for Approval of the 324 Building Emergency Planning Hazards Assessment (EPHA), CP-59957, Revision 1.*
  - Letter, 17-NSD-0019\_RL, dated April 17, 2017, *Transmittal of the U.S. Department of Energy Richland Operations Office (RL) Review Comment Record (RCR) for the Annual update to the 324 Building Basis for Interim Operations, CHPRC-02979, Revision 2, The 324 Building Technical Safety Requirements, CHPRC-02980, Revision 1, and the Addendum to the 324 Building Basis for Interim Operation for Stabilization, CHPRC 02983, Revision 1.*
- Other documents:
  - Completion of CE-SPA-PFP-2017-001, *Contaminated Equipment Special Packaging Authorized Shipment Evaluation Checklist for the Contaminated Equipment Shipment from PFP to ERDF.*
  - Completion of CHPRC-03146, *Internal Load Securement Plan for the Strongbacks Within 1800-TL Shipping Containers, Revision 1.*
- o Contractor Assurance Regulatory Reporting (CARR) accomplishments:
  - 219 Condition Reports (CRs) were screened:
    - One significant issue identified.
    - One adverse issue identified.
    - 105 Track until Fixed issues identified.
    - 42 Trend Only items identified.
    - 68 Opportunity for Improvement (OFI) items identified.
    - Two Screened Out.
  - 191 CRs administratively closed.
  - 284 CRs actions administratively closed.

- Provided Course #600082, *Responsible Manager Training, Issues Management*.
- Provided full time support to PFP Issues Management and Occurrence Reporting activities.
- Transmitted Notification/Final Occurrence Reporting and Processing System (ORPS) report associated with PFP: EM-RL-CPRC-PFP-2017-0009, *Contaminated Boot*.
- Provided support and coordination for the bi-monthly conference call with the Defense Nuclear Facilities Safety Board (DNFSB) to discuss the PFP demolition planning/status.
- Provided support for the monthly Sludge Treatment Project (STP) Status conference call and support for the bi-monthly DNFSB Resident Inspector meeting.
- Provided support for the monthly 300-296 Project status conference call with the DNFSB.
- Twenty-four documents were provided in response to DNFSB requests for information.
- Published the March 2017 Contractor Assurance System Summary Report.
- An external Lessons Learned was submitted to OPEXShare April 2017: 2017-RL-HNF-0007, *Worker Receives Electrical Shock When Connecting Battery Charger Using Wet Gloves*. An external Best Practice was submitted to OPEXShare April 2017: 2017-RL-HNF-0008, *Planning to Address Upset Conditions Prepared Work Team to Rescue Workers from Aerial Lift*. An internal Lessons Learned was submitted to OPEXShare in April 2017: LL-2017-PFP-0003, *Clearly State and Review Work Instructions to Ensure the Intent of the Instructions is Carried Out*.
- o Performance Oversight, Assessment, and Quality Assurance accomplishments:
  - Supported a Corporate Assist Visit to the West Valley project to provide Learning Organization training.
  - Presented Apparent Cause Evaluation for the PFP Readiness Assessment to Executive Safety Review Board (ESRB).
  - Completed in-field activities and issued final report for 10 CFR 835 Subpart M, *Sealed Radioactive Source Control*. There were five issues identified related to compliance with CHPRC implementing procedures.
  - Provided Subject Matter expert support to the PFP Management Assessment Team evaluating incorporation of Lessons Learned to begin demolition of 234-5Z and 291-Z facilities.
  - Developed first draft of Management Assessment Plan to assess quality records for Delegation of Authority for CR-2016-1373, “Delegations of Authority are Not Classified as QA Documents,” evaluation.
  - Developed Project Assessment Coordinator (PAC) Roles and Responsibilities bulletin.
  - Completed Performance, Objectives, Measures, and Commitments (POMC) second quarter status report.
  - Completed fieldwork for Independent Assessment SHSQ-2017-NSPEB-13328, *Nuclear Safety and Performance Evaluation Board (NSPEB) Review of Corrective Actions Taken for SHSQ-2015-NSPEB-13324* (Review of SGRP).
- o Fire Protection accomplishments:
  - Issues associated with the epoxy work in PFP were resolved.
  - A summary document is being prepared to assist in the scope of the RTL Demolition Project for the basic requirements for the isolation of the fire suppression and alarm systems along with site general requirements.
  - The following TSR activities were completed:
    - SWOC:
      - o 2T-17-00544 - Quarterly Combustible TSR surveillance for T Plant
    - PFP:
      - o SR 5.18.4.2 – Monthly inspection of facility and exterior for compliance with fire protection combustible controls

- SR 5.19.4.3 – Monthly inspection of facility for energized power cords, energized battery chargers and spontaneous ignition source material
  - SAC 5.20.2 – Bi-weekly inspection of front side ventilation zone 1 areas – performed by the facility Fire Safety Officer
- Facility Hazards Analysis (FHA):
  - PFP FHA Rev 5 has begun and is nearly complete.
  - The 105KW FHA was published and submitted with the DSA/TSR.
  - SWOC FHA was published and submitted with the MDSA/TSR.
  - B Plant FHA is in comment review, issues are being worked with Hanford Fire Marshall Office (HFMO).
  - The REDOX FHA is going into revision to provide support to REDOX activities.
  - U Plant FHA is being developed.
  - 402 Building FHA is nearing completion.
  - 324 Building FHA is being developed.
  - The IDF FHA had been formatted and initial data collection/preparation has begun.
  - The CSB FHA is under revision.
  - There were 15 facility Fire Protection Assessments completed in April.
- SHS&Q Focus Areas:
  - **Issue:** Beryllium program assessment findings from Department of Energy (DOE-HQ), Office of Safety, Health and Security Independent Oversight Inspection report.
  - **Status:** Revision 4 is being developed by the Hanford Beryllium Committee.
  - **Action:** Beryllium facility assessments and characterization on schedule. Beryllium facility assessments have been completed on 1,476 CHPRC facilities.
  - **Issue:** Accident & Injury Reduction.
  - **Status:** Continue investigating recordable, days away, restricted, or transferred, and First Aid injuries to determine cause, prevention, reduction to prevent recurrence. Project safety campaigns are working effectively.
  - **Action:** Continued injury trend improvements across the PRC are being observed.
  - **Issue:** PFP support.
  - **Status:** Supporting PFP and other projects with dedicated OS&IH personnel and Radiological Control personnel, from the SHS&Q Central group for Senior Supervisory Watch of high-risk work activities.
  - **Action:** Providing senior supervisory watch for PFP demolition activities based upon specific hazard activities in coordination with PFP management.
  - **Issue:** Fire Protection program improvements.
  - **Status:** CHPRC Fire Protection personnel are actively interfacing with Hanford Fire Department (HFD) and RL regarding Fire Protection program improvements related to fire hazard analyses.
  - **Action:** Weekly fire protection program status and initiatives are presented each week to the SHS&Q Vice President.

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

- **Environmental Protection**
  - **Compliance Status**
    - No new items to report.

- **Environmental Compliance & Quality Assurance (EC&QA)**
  - **Assessment Program**
    - A surveillance assessing the Waste & Fuels Management Project Performance Evaluation System (PES) was conducted by EC&QA from March 6 through March 21, 2017. The surveillance report, issued on March 30, 2017, identified one finding and three opportunities for improvement.
    - A surveillance assessment compliance with National Environmental Policy Act and State Environmental Policy Act requirements was conducted by EC&QA from March 6 through March 9, 2017. The surveillance report, issued March 30, 2017, identified no findings and five opportunities for improvement.

### Business Services

- **Acquisition Planning:**
  - Obtained contact information for an alternative company that manufactures flexible waste packages. Currently CHPRC has been purchasing flexible waste packages from a single source. The addition of another company that has a patented package will provide an additional supplier for these unique packages with a unique application.
  - Completed a review and evaluation on the implementation of a recent update to DEAR 970.5204-3 “Access to and Ownership of Records.”
  - Addressed a warranty issue with the purchase of mobile office trailers. There was a latent defect determined in delivered trailers that needed a field repair.
  - Completed a preliminary evaluation on strategic sourcing savings for three large construction procurements. An additional \$1.2 million in savings was identified through the review process.
  - Coordinated the development of a procurement strategy for project management support to the W-135 project.
  - Met with 300-296 Project to develop the Request for Proposal (RFP) strategy for the first major construction activity. The results of the Expression of Interest responses were received and evaluated. Qualification standards were discussed to be used in the RFP.
  - Met with K Basin Operations and Plateau Remediation project managers to discuss FY2018 engineering services needs and the proper methods for incrementally funding subcontracts.
  - Completed a review and developed a Buyer Technical Representative (BTR) Forms Checklist to aid BTRs in contract administration activities.
- **Facilities & Property Management (F&PM):**
  - The FY2017 Inventory campaign continues. Conducted a Property Coordinators Training session for our seven new Property Coordinators on April 5, 2017. Conducted site visits to five of the Property Coordinator’s job sites for scanner set-up and assisted with inventory items until they were familiar with performing the task. Inventory is currently 43 percent complete. Additional training of one additional Property Coordinator and new Property Management Specialist will occur in the month of May.
  - Move planning/execution for RL and CHPRC between Federal Building and 2420 Stevens Center Place continues. A portion of PC&PI and Environmental moves were conducted in April 2017. Minor facility upgrades within the Federal Building continue. Expect moves to continue through late July.
  - Support to new shower trailer for S&GRP Drilling and Sampling Operations at Waste Sampling and Characterization Facility continues.

- o A new single-wide office trailer is being planned in the 400 Area in support of potable water operations. Working with MSA on placement permits. Cultural Review complete. Trailer electrical service will be installed on-grade in rigid conduit, with no trenching required. Completed geophysics ground scan for trailer set. Facilities Modification Package (FMP) has been completed.
- o A single-wide restroom trailer is being planned as an addition to the 300 Area in support of the 324 Building project. All building permits approved, and civil and electrical engineering permits completed. Also completed geophysics ground scan for trailer set, and trailer is currently in the procurement process and rental agreements.
- o Completed tie-in of potable water to MO246 and MO061 and restored operational restrooms.
- o MO029 was removed from site and received at ERDF.
- o Completed walk down of 300 Area trailers utilizing temporary power (above ground). The walk down resulted in actions to protect several electrical services (barriers, etc.). Barriers have been placed within the areas identified in the walk down requiring more protection. Electrical Engineering concluded the current configuration of above ground temporary power was acceptable.
- **Finance:**
  - o April month-end completed with no cost suspensions.
  - o Placed all proposed Construction Work in Progress (CWIP) entries with applicable backup on share drive for RL to access when time permits.
  - o Received approval of Disclosure Statement Revision #9 from RL.
  - o Kicked off FY2018 forward pricing rate development.
- **Human Resources (HR):**
  - o Placement analysis is in work for PFP and 618-10 end of assignment work scope over the next several months.
  - o Approved 7 Self-Select Applicants to be separated May 4, 2017.
  - o Participated in the 2017 World at Work Salary Budget Survey. This survey is a component of our CY2018 Salary Increase Fund Notification and Position to Market Analysis that will be provided to RL in November 2017.
  - o Participated in the 2017 Savannah River Nuclear Solutions (SRNS) and Savannah River Remediation (SRR) Custom Survey of select Bargaining Unit positions and First Line Manager roles.
  - o Participated in the 2017/2018 Mercer U.S. Compensation Planning Survey. The results and data provided in this survey enable CHPRC to gauge our position to market and follow merit budget trends across the United States.
  - o Attended the Heritage University 2017 Career Fair, Thursday, March 30, 2017. The career fair was open to the public and free to job seekers looking for employment in both professional and entry level positions around the Yakima Valley.
  - o The Summer Intern Program is in full swing. CHPRC will welcome the first two summer interns to CHPRC on Monday, April 24, 2017. Fourteen interns are scheduled to join the project during May, another seven in June, and one more in July.
- **Labor Relations (LR):**
  - o The following is the current status of grievances in the Arbitration Process:
    - PRC-015-051 and PRC-016-014 – purchasing items (i.e. pipe spools) from offsite vendors. Status: Union hold on selecting the panel until they can further review.

- PRC-015-011 – union claiming misassignment of work in regard to respirator maintenance. Status: Arbitration scheduled for October 11, 2016, postponed by mutual agreement as parties work to reach settlement in the matter.
- PRC-016-027 – purchasing items (i.e., pipe spools) from offsite vendors. Status: Union reviewing grievances and parties agreed to toll the deadline for CHPRC to file any Unfair Labor Practices (ULPs) with the National Labor Relation Board (NLRB).
- PRC-016-036 – discipline. Status: Arbitration Panel selection in process.
- PRC-016-044, 049, & 050 – termination. Status: Arbitration Panel complete coordinating schedules for arbitration date.
- PRC-016-059 – failure to meet CHPRC pre-employment screening. Status: Arbitration Panel complete – coordinating schedules for arbitration dates.
- o Labor Relations continues to support Work Force Restructuring activities for affected bargaining unit employees. Affected resources were provided opportunity to volunteer for open positions elsewhere in the CHPRC projects. Assignments to new locations are effective in early May for most positions.
- **Procurement:**
  - o Awarded/amended 121 contracts with a total value of \$9.9 million. Additionally, awarded 206 new material Purchase Orders (PO) valued at \$471,741 to support ongoing project objectives.
  - o At the end of the first 103 months of the CHPRC project, procurement volume has been significant; \$2.52 billion in contract activity has been recorded with approximately 54.78 percent, or \$1.38 billion, in awards to small businesses. This includes 7,725 contract releases, 22,876 POs, and 271,864 P-Card transactions.
  - o Contract 62754 was awarded to Columbia Energy and Environmental Services, Inc. on March 27, 2017. This is a time and materials contract for “Inventory Development for Hanford Site Composite Analysis.” This award is valued at \$161,000.
  - o Contract 36883-42 was awarded to Ojeda on March 27, 2017. This is a firm fixed price contract to “Replace the P-16 Pump at the 400 Area.” This award is valued at \$89,391.
  - o Contract 48772-20 was awarded to Stillwater, LLC on March 30, 2017. This is a firm fixed price contract for “Drilling of Five M-24 Monitoring Wells, 200-PO-1 OU FY2017.” This award is valued at \$510,000.
  - o Contract 36883-43 was awarded to Ojeda on April 11, 2017. This is a firm fixed price contract to “Install Hot Starts at 189-K.” This award is valued at \$113,500.
  - o Contract 54177-69 was awarded to Intera Incorporated on April 17, 2017. This is a time and materials contract for “Silt Loam Volume and Evapotranspiration Barriers.” This award is valued at \$205,004.
  - o Contract 53688-21 was awarded to Freestone Environmental Services, Inc. on April 19, 2017. This is a time and materials contract for “Geo Support for Drilling 5 M-24 Wells, FY2017.” This award is valued at \$57,962.16.

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

- o A Minor Change to PRC-MP-MS-19361, *CH2M Hill Plateau Remediation Company Project Execution Plan* was approved internally. The changes reflect the CHPRC assumption of the River Corridor Cleanup Contract work scope and the corresponding CHPRC organization structure. A letter was issued to formally transmit the document to RL for approval; the RL response is being tracked on the Open Correspondence Action Log.

- **Prime Contract Compliance (PCC):**
  - In April, PCC received and processed one contract modification (591) from RL.
  - The Correspondence Review Team received and determined the distribution for 61 incoming letters/documents. The PCC Manager reviewed 45 outgoing correspondence packages.
  - Issued CHPRC-1700181, “*Request for Contracting Officer Direction to Implement Contingency Plan for Removal of Fuel Fragments from KW Basin.*”
  - Issued CHPRC-1701319, “*Notification of Impacts to Performance Measure PM-30-1-17, Maximize Plum Containment and Remediation Utilization.*”
  
- **Integrated Services**
  - **Estimating & Program Support**
    - Four Change Proposals/Request for Equitable Adjustments (CPs/REAs) were submitted to RL in April 2017:
      - CP 000 PRC 1650 - Disclosure Statement Revision to Estimating and Program Support, submitted on April 5, 2017.
      - CP 030 318 1618 - 200-WA-1 and 200-BC-1 Operable Units Characterization, submitted on April 6, 2017.
      - CP 041 326 1651 - 105-KW Fuel Storage Basin, submitted on April 19, 2017.
      - CP 030 PRC 1649 - 200-SW-2 Operable Unit Field Work Characterization Fiscal Year 2017 and 2018, submitted on April 26, 2017
    - Twenty-two CPs/REAs have been submitted FY2017 to-date, twenty on or ahead of schedule with two CPs/REAs submitted late.
    - Continued development of CP/REA and rough order of magnitude (ROM):
      - REA 000 PRC 1643 - Hanford Site Safety - Confined Space Gap Training.
      - ROM 1655 - Impact Assessment and ROM to add CRD 0 420.1IC, Chg 1, (Supplemented Revision 0), “Facility Safety” and delete CRD 0 420 1IC, (Supplemented Revision 0), “Facility Safety.””
    - Supported six Truthful Cost or Pricing Data updates for CPs/REAs:
      - CP 041 305 1616 - 300-296 Waste Site Design Change, Initiate Procurements, Initiate Testing, and Initiate Removal of Debris.
      - CP 041 306 1596 - 618-10 Burial Ground.
      - CP 041 306 1597 - River Corridor Closure Contract (RCCC) Remaining Closure Operations.
      - CP 041 306 1600 - 316-4 Waste Site.
      - CP 041 306 1610 - 600-63 Waste Site.
      - CP 041 319 1640 - Garnet Filter Media Removal.
    - Supported RL’s requests for information (RFIs) for four CPs/REAs:
      - CP 041 307 1621 - 100-K Additional Tons FY2016 and FY2017.
      - CP 013 310 1624 - Solid Waste Operations Complex (SWOC) Hazards Mitigation Activities, submitted response April 3, 2017.
      - CP 040 311 1625 - Emergency Response for Facility/Waste Site Environmental, Safety, Health, and Quality or Remediation, submitted response on April 20, 2017.
      - CP 041 319 1640 - Garnet Filter Media Removal.
    - Miscellaneous estimating support:
      - Supported the FY2018 Performance Measurement Baseline and the FY2018 and out-years long-range plan annual update.
      - On April 4, 2017, CHPRC received authorization from RL to proceed on Pacific Northwest National Laboratory (PNNL) Inter-Entity Work Order 314051 - Mod 3,

Project 1, Research Technology Laboratory (RTL) D4 Mobilization, Isolation, and Internal Remediation estimate and schedule. Estimating & Program Support worked with the Plutonium Finishing Plant (PFP) Closure Project to develop the requested estimate, including incorporation of the scope changes as reflected in the updated PNNL provided Statement of Work.

o **Interface Management:**

- Interfaces (Technical, Administrative and Regulatory):
  - Submitted final FY2017 Integrated Safety Analysis Plan (ISAP) document to MSA ahead of schedule.
  - Continue to support communications between Washington River Protection Solutions (WRPS) at 222-S and CHPRC at REDOX.
  - Attended multi-contractor post-winter lessons learned session. CHPRC projects provided detailed feedback to MSA. MSA to compile and publish formal lessons learned.
  - Provided updated CHPRC Water Forecast needs to MSA for project design basis and Water Master Plan information.
  - Connected CHPRC project representatives with the MSA L-859 1st Street Road Upgrade team to coordinate access to PUREX Road and wells near Integrated Disposal Facility during the road construction period (May-June, 2017).
- Annual Forecast of Services:
  - CHPRC kicked off FY2018 annual planning; MSA service forecast is included in this activity.
  - Continued flow of communication/requests for MSA resources, as required by emerging project needs. Most recently, PFP tropical shift and ERDF teamster needs have required additional discussions and support.
- Inter-Contractor Issue Resolution:
  - Continued communications between MSA Infrastructure Projects (water/sewer upgrades) and CHPRC Surveillance & Maintenance and Remedy Selection Project point of contacts to communicate concerns related to new infrastructure crossing over, under, through Waste Information Data System (WIDS) sites slated for near term remediation. Met with MSA and RL to discuss concerns and request response from MSA to address the concerns. CHPRC Interface Management will continue to facilitate discussions and monitor information exchange.
- Controlling and Service Agreements:
  - Published PRC-AIA-MSA-02137, Revision 2 between CH2M HILL Plateau Remediation Company and Mission Support Alliance, LLC for Construction/On-Site/Specialized Equipment Needs.
  - Cancelled PRC-AIA-OHC-02972, Revision 0 between CHPRC and WRPS after completion of demolition and backfill of the 207A South Basin.
  - Administrative Interface Agreement (AIA) CHPRC-00236, Revision 3, AIA for Welding and Materials, Engineering Services and Welding Services between CHPRC, MSA, and WRPS is with WRPS for their review and comment.
  - Published HNF-49315, Memorandum of Agreement (MOA) on Hanford Atomic Metal Trades Council (HAMTC) Seniority Related Discharges and Replacements.
  - Received final Interface & Responsibilities Agreement with the city of Richland for Electrical Utilities in the 300 Area.
  - Sent seven Service Delivery Documents out for review and comment during the month of April 2017.

- J.3 Table Maintenance: (No performance level actions occurred within the month of April 2017)
- J.13 and J.14 Tables Maintenance:
  - Final CHPRC approval of proposed modifications to the J.13 and J.14 Tables was provided to MSA on April 7, 2017.
- Internal Operations:
  - Continued working several documents revisions/cancellations related to the RCCC scope transfer to CHPRC. Involved parties include city of Richland, PNNL, and MSA.
  - Investigating a potential change of five mobile trailers at the Environmental Restoration and Disposal Facility (ERDF) from General Purpose Facilities to Project Specific Facilities due to the existing work control and configuration control processes in place at ERDF. Existing project processes do not align with the delegations given to MSA for general maintenance activities.
  - Supporting 300 Area Projects mobilization and set up, including infrastructure installation (trailers, utilities, amenities, etc.) and resource alignment
- o **Information Management:**
  - Processed 19,883 Electronic Records into the Integrated Document Management System (IDMS).
  - Completed work with MSA to improve network connectivity and speed in 300 Area for Soil Remediation Project and 600 Area for 618-10 Project. HLAN upgrades were completed for the MO2232 building. Additional HLAN installations to support the project are scheduled during April.
  - Continued support to internal data validation and tests of DOE Earned Value Cost and Schedule Analysis (EVCSA) tool.
  - Attended joint meeting with MSA and WRPS to accept 2017 EPEAT Purchaser Award. The award was based on the combined FY2016 procurement quantities in all three product categories: PCs/Displays, Imaging Equipment, and Televisions, which earns the team three stars on the award. The award was presented by Jeanne Beard, DOE-HQ EM Information **Systems Director.**
- **Project Integration**
  - o During April, Project Integration facilitated and supported the processing of 13 Baseline Change Requests (BCRs).
  - o The contract for the revision of the CHPRC Project Controls System Description to integrate the Earned Value Management Interpretation Handbook (EVMSIH) was awarded and kickoff meeting for the effort was during April.
  - o CHPRC continues to validate the Department of Energy (DOE) Project Management Policy and Systems (PM-30) Earned Value Cost and Schedule Analyzer (EVCSA) Tool and data results. Prime Contract & Project Integrations is conducting validation of the 16 Electronic Industries Alliance (EIA) 748 Guidelines which have automated tests. To date, 10 of the guidelines have been reviewed, while the remaining 6 are in-process. Validation produces three results:
    - Data corrections required by CHPRC.
    - Justification and documenting historical conditions that will not be corrected.
    - Reporting DOE EVCSA Tool deficiencies to PM-30.
  - o Items requiring CHPRC action will be broken into two areas:
    - Project Integration will be assigned all tool (P6/Cobra), process, or procedure corrections required.
    - Projects will be assigned required data corrections (dates/titles/EVTs/durations etc.

- o The approach to corrective actions will be similar to the PM-30's process. Single instance anomalies (one to two months) can be corrected by Project Integration/Projects via the appropriate process, i.e., baseline change control. Items spanning three or more months will be considered systemic and will require corrective action entry into the Condition Reporting & Resolution System (CRRS).
- **Program Integration**
  - o **000 Project EVM Support:**
    - Developed Management Assessment Plan for PC&PI-2017-MA-18735 Maintenance Tracking Assessment to evaluate the effectiveness and reliability of the current CHPRC methodology for identifying, collecting, and reporting operation and maintenance costs for real property assets.
    - Finalized and issued PC&PI-2017-WSA-18686 Worksite Assessment of Indirect Accounts Accrual Record Retention. Only minor opportunities for improvement recommended.
    - Prepared BCR-PRC-17-022R0 Incorporate CO # 321, Management of RCRA Site Wide Permit Revision 9.
    - Kicked off Indirect FY2018 Estimate-to-Complete and FY2019-FY2022 Long Range Plan preparation.
    - Supported meeting with RL regarding Training on Overtime hours and Code of Account AH50.
  - o **Risk Management and Reporting:**
    - Issued the CHPRC March Monthly Performance Report to RL.
    - Conducted Internal Project Team reviews for March performance data.
    - Conducted March performance monthly project reviews.
    - Provided PC&PI input into Contractor Assurance System (CAS) March Report.
    - Issued CHPRC March Corporate Program Performance report.
    - Supported development of the CHPRC March Monthly Highlights to the Nuclear Business Group.
    - Conducted risk meetings to support change proposals identified under Estimating & Program Support section.
    - Resolved FY2017 Estimate to Complete (ETC) Risk Management Review Comment Record (RCRs). Agreement was reached that the FY2017 RCRs were RL enhanced expectations. Partnering sessions will be conducted prior to FY2018 submittal.
    - Completed the Risk Management annual update guidance to support the FY2018 ETC/long range plan (LRP) deliverables.
    - Initiated risk reviews for third quarter and LRP efforts.
  - o **Strategic Management:**
    - Completed a multi-year CHPRC Integrated Priority List (IPL) to incorporate near term and long-term priorities. The IPL includes long-range plan scope and emerging priorities, and incorporates elements of the RL 2020 vision. CHPRC met with RL in April and incorporated comments.
    - Continued the LRP effort as part of the Performance Measurement Baseline (PMB) deliverable for this year. As part of this effort, detailed guidance and schedules were developed and coordinated with the FY2018 ETC update.
    - Continued work with various projects on the LRP to support work from FY2018-FY2020, including Risk Mitigation related activities, KW Deactivation & Demolition, Soil &

- Groundwater, and Waste and Fuels M-91 and Management of Cesium and Strontium Capsule (MCSC) Project.
- Updated CHPRC FY2017 Execution Year Priority list per April Field Execution Schedule projected completion dates and posted on CHPRC internal website. Strategic planning continued in April, including work to begin a 2-5-10 year priority and project goals. An initial focus is producing a strategic plan for key projects in the next five years, with overall schedules to support these, as well as a comprehensive assessment of all regulatory documents needed in the next five years to support the project work. The overall goal will be to align both project and regulatory key strategic initiatives to support successful project completions.
  - Continued supporting multiple projects technical requests, including assistance with alternative M-91 transuranic (TRU) processing facilities, alternative disposal analysis from Waste Treatment Plant (WTP) cold run waste. Continued to provide input to key project initiatives, including Building 224B processes, burial ground waste research, MCSC Project, and the alpha caisson retrieval project. Continued support of ERDF radionuclide disposals and modifications to Waste Management Information System inventory tracking with RL, ERDF Operations Management, and Risk & Modeling Integration. These discussions were in support of the issuance of the annual surveillance and maintenance review required by the ERDF Performance Assessment.
  - Held April Productivity Tracking Log meeting with the projects. Discussed company-level metrics, and Projects briefed their metrics of productivity delays and efficiencies.

## PTS

- **Engineering Services**
  - o Participated in site-wide electrical safety committee and codes board meetings.
- **Training and Procedures**
  - o Implemented first Computer Based Training in new courseware system (PCard Manager).
- **Operations Program**
  - ConOps/Work Control/Conduct of Work
  - o Supporting efforts to determine process improvements for Preventative Maintenance Operations work acceptance with Hanford Fire Department and CHPRC.
  - o Supported facilities to reduce overdue preventative maintenance count.

### Emergency Preparedness (EP)

- o Conducting second quarter EP Assessment of all Facilities.
- o Conducted Protective Action Drill for 200W/E and 100K.
- o Provided CHPRC robotics white paper.

- **Project Delivery**

- o Federal Building Upgrades
  - Continue patch and painting as rooms are vacated.
  - Continue carpet cleaning as rooms are vacated, rooms 433 and 555 completed.

## Communications

- Communications supported RL in the following Public Involvement activities:
  - o Doug Shoop presented RL's 2020 Vision and Tom Teynor provided PFP demolition updates at the April 3, 2017, Hanford Advisory Board (HAB) Meeting in Hood River, Oregon.

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- April 12, 2017, Online live broadcast Hanford Site update led by the Tri-Party Agreement agencies, Doug Shoop, Kevin Smith DOE Office of River Protection (ORP), Environmental Protection Agency (EPA) and Ecology broadcasted live via social media for viewers to hear about Hanford project update and priorities and answered questions sent in on behalf of the public. [http://www.hanford.gov/files.cfm/Flyer-Hanford\\_Live\\_FINAL.PDF](http://www.hanford.gov/files.cfm/Flyer-Hanford_Live_FINAL.PDF)
- Communications supported RL in conducting interviews and providing information that generated the following articles in the media:
  - KNDU-TV: “[Steel, concrete-cutting saw needed to reach contaminated soil underneath 324 Building](#)”
  - Annette Cary, Tri-City Herald, interviewed Bill Kirby and Bryan Foley regarding the recent progress at the 324 Building, including testing of the mock-up floor saw and the first airlock entry in approximately 15 years.
  - Annette Cary, Tri-City Herald, submitted an inquiry on the waste site remediation at 100K. RL is in the process of reviewing the request.
  - Tri-City Herald: “[Tear-down of highly contaminated Hanford canyon weeks away](#)”
- Communications supported RL in the development of several social media posts, including:
  - Aerials of PFP demolition
  - 100K Waste Site remediation
  - Groundwater pump installation
  - 324 Building airlock rail system completed factory testing
  - 618-10 progress – vertical pipe unit removal
  - PFP progress – [time lapse video of PRF demolition](#)
  - 324 progress – [airlock entry and mock-up floor saw progress](#)

## 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 (%)
Office of the President	0.1	0.1	0.2	0.0	0.0%	0.0	-24.8%
Internal Audit	0.1	0.1	0.1	0.0	0.0%	0.0	17.3%
General Counsel	0.1	0.1	0.1	0.0	0.0%	0.0	36.4%
Communications	0.1	0.1	0.1	0.0	0.0%	0.0	-8.2%
Safety, Health, Security and Quality	1.3	1.3	1.0	0.0	-0.1%	0.3	20.0%
Environmental Program and Strategic Planning	0.6	0.6	0.4	0.0	0.0%	0.2	34.4%
Business Services	1.9	1.9	2.2	0.0	0.0%	(0.3)	-14.3%
Prime Contract and Project Integration	2.0	2.0	1.7	0.0	0.0%	0.3	12.9%
Project Technical Services	0.6	0.6	0.6	0.0	-0.2%	0.0	-1.7%
<b>Indirect WBS 000 Total</b>	<b>6.9</b>	<b>6.9</b>	<b>6.4</b>	<b>0.0</b>	<b>0.0%</b>	<b>0.4</b>	<b>6.5%</b>

Numbers are rounded to the nearest \$0.1 million.

#### Indirect WBS 000

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

The variance is within reporting thresholds.

##### CM Cost Performance: (+\$0.4M/+6.5%)

The variance is within reporting thresholds.

## 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 (BAC)
Office of the President	1.0	1.0	1.1	0.0	0.0%	0.0	-3.9%	1.8
Internal Audit	0.6	0.6	0.4	0.0	0.0%	0.3	42.9%	1.2
General Counsel	0.8	0.8	0.7	0.0	0.0%	0.1	15.0%	1.5
Communications	0.6	0.6	0.7	0.0	0.0%	(0.1)	-17.8%	1.1
Safety, Health, Security and Quality	8.7	8.7	7.1	0.0	0.0%	1.6	18.4%	15.7
Environmental Program and Strategic Planning	3.2	3.2	2.4	0.0	0.0%	0.7	23.7%	5.8
Business Services	13.4	13.4	13.0	0.0	0.0%	0.4	2.7%	24.1
Prime Contract and Project Integration	13.6	13.6	11.6	0.0	0.0%	2.0	14.6%	24.5
Project Technical Services	4.2	4.2	3.9	0.0	0.2%	0.3	6.2%	7.5
<b>Indirect WBS 000 Total</b>	<b>46.1</b>	<b>46.1</b>	<b>40.9</b>	<b>0.0</b>	<b>0.0%</b>	<b>5.2</b>	<b>11.3%</b>	<b>83.3</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: (+\$5.2M/+11.3%)

The FYTD positive cost variance is primarily due to continued lower than planned on-demand services for information resource and technology management support. Also contributing to the positive cost variance is open vacancies in the Safety Health Security & Quality and Environmental Program & Strategic Planning organizations. Additionally, the National Beryllium Program has experienced a decrease in activity as the Beryllium Corrective Action Plan has concluded and the Awareness Group meetings are required less frequently.

## FY2017 G&A Analysis (\$M)

WBS 000 Project Services and Support	FY 2017					
	FYTD	FYTD	FYTD	FY2017	FY2017	FY2017
	BCWS	Actual	Variance (O)/U	BCWS	Forecast	Variance (O)/U
<b>General &amp; Administrative (G&amp;A)</b>	<b>46.1</b>	<b>40.9</b>	<b>5.2</b>	<b>83.3</b>	<b>79.2</b>	<b>4.1</b>
Office of the President	1.0	1.1	(0.0)	1.8	1.9	(0.1)
Internal Audit	0.6	0.4	0.3	1.2	0.9	0.3
General Counsel	0.8	0.7	0.1	1.5	1.3	0.2
Communications	0.6	0.7	(0.1)	1.1	1.3	(0.2)
Safety, Health, Security and Quality	8.7	7.1	1.6	15.7	14.3	1.4
Env. Program & Strategic Planning	3.2	2.4	0.7	5.8	4.7	1.1
Business Services	13.4	13.0	0.4	24.1	25.0	(0.9)
Prime Contract and Project Integration	13.6	11.6	2.0	24.5	21.9	2.7
Project Technical Services	4.2	3.9	0.2	7.5	7.9	(0.4)

FY2017		
<b>G&amp;A Distribution</b>	<b>(48.5)</b>	<b>(90.3)</b>
<b>G&amp;A Liquidation (Over)/Under</b>	<b>(7.6)</b>	<b>(11.1)</b>

### Liquidation Analysis

For April, application of the G&A rate has over-liquidated total to date G&A cost by \$7.6 million. The FY2017 year-end projected over-liquidation of \$11.1 million, reflected in the fiscal year spend forecast, reflects a projected decrease in G&A costs as well as an increase to the G&A base.

Consistent with CHPRC prospective Cost Accounting Disclosure Statement, under liquidations would be distributed to users at a minimum, when the combined projected year-end under liquidation is equal to or greater than \$4 million. Over liquidations would be distributed to users at a minimum, when the combined projected year-end over liquidation is equal to or greater than \$6 million. Variances may be liquidated to users at lower thresholds if variances are determined to be significant to cost control. All remaining variances will be distributed at fiscal year end.

## MAJOR ISSUES

None currently identified.

## **RISK MANAGEMENT STATUS**

No key risks currently identified.

## **MILESTONE STATUS**

None currently identified.

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

None currently identified.

# Appendix C

## Capital Asset Projects



April 2017  
CHPRC-2017-04, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

Appendix C.1  
Capital Asset Project  
RL-0011\_C1 - PFP D&D  
(Removal of 174 Gloveboxes from 234-5Z)



T. E. Bratvold  
Vice President for  
Plutonium Finishing  
Plant Closure  
Project

April 2017  
CHPRC-2017-04, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

Progress continued to work toward critical decision (CD)-4 closure as teams continued to prep glovebox/hoods for extraction during demolition. It is expected that final preparations will be complete on May 9, 2017. At that time, gloveboxes will be staged until demolition of 234-5Z commences and completion of Capital Assets Project discrete scope will be completed. The total number of gloveboxes removed to date is 95 percent complete.

The following are key metrics associated with this Capital Asset Project.

<i>Key Metrics</i>	<i>Current Month Plan</i>	<i>Current Month Actuals</i>	<i>Cumulative Plan</i>	<i>Cumulative Actuals</i>
Glovebox/Hood Removed	-	1	174	165
<b>COMPLETE</b> KPP Rooms/Areas Ready for Demo	-	-	60	60 rooms/areas

## KEY ACCOMPLISHMENTS

### RL-0011\_C1 Accomplishments

- Work remaining on this capital asset project is removal of the gloveboxes from the 234-5Z facility. All work associated with the glovebox process equipment removal has been completed. Final preparations to support the physical removal of the remaining gloveboxes will be completed by May 9, 2017. As the project nears the ready for demolition milestone for the 234-5Z building (May 2017), additional gloveboxes will begin to be removed from the facility.
- Removed the HC-18M Glovebox from 234-5Z and staged for shipment for Perma-Fix Northwest for size reduction.
- Continued preparations for removal of HA-7A and HC-7C gloveboxes from 234-5Z. It is expected that the HA-7A Glovebox will be removed from the facility by the end of May, 2017, and HC-7C by the end of June 2017.

## MAJOR ISSUES

None currently identified.

## CORRECTIVE ACTION LOG

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

## RISK MANAGEMENT STATUS

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

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

-  Increased Confidence
-  No Change
-  Decreased Confidence

Risk Title Risk Owner	Unmitigated Risk Impacts	Assessment		Comments		
		Month	Trend			
<b>RL-0011/WBS-011.05.01.01.06 (CAP.1)</b>						
<b>Explanation of major changes to the project monthly spotlight chart:</b> No major changes to the monthly spotlight chart in the month of <b>April</b> .						
<b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)						
No realized risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in the month of <b>April</b> .						
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)						
<b>FY2017 Risk Triggers</b> (Risk could be realized in FY2017)						
PFP-DEMO-21: Glove Box/Equipment Removal/Demolition Material Handling Event	A material handling event (e.g., dropped piece of process equipment) occurs during the Plutonium Finishing Plant (PFP) demolition, resulting in cost impacts and schedule delays. <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Low (10% to 25%) <b>Worst Case Impacts:</b> \$150K, 30 days			<b>Risk Trigger:</b> During pre-demolition/demolition activities in FY2017.		
				<table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table>	Mitigation action(s)	FC Date
Mitigation action(s)	FC Date	%				
None identified at this time.	N/A	N/A				
<b>Mitigation Assessment:</b> Mitigation Assessment: No change in the month of <b>April</b> . The mitigation strategies have been put in place; as a result, the risk strategy is to accept with no further mitigation actions identified at this time. PFP will continue to adhere to the CHPRC ISMS program/hoisting and rigging program to include detailed analyses of potential hazards and identification of preventive measures to implement prior to starting the work. At this time, no alternative course of actions needed.						
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)						
No high threat value risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in the month of <b>April</b> .						
<b>Unassigned Risks</b> (Pending ownership of identified risks/opportunities)						
No unassigned risks identified for RL-0011/WBS-011.05.01.01.06 (CAP.1) in the month of <b>April</b> .						

## CRITICAL PATH SCHEDULE

The Plutonium Finishing Plant (PFP) Critical Path Schedule is a resource-driven float path in which the critical path starts with fixing the E4 ventilation system and preparing the filter rooms for demolition. Once complete, 234-5Z will be declared Cold & Dark and Ready for Demo. Demolition of 234-5Z will occur in the following sequence: 234-5ZA, Frontside, A-Labs, Backside Rooms/Plutonium Process Support Laboratories (PPSL), RMA Process Lines, RMC Process Lines, and the RADTU & Basement areas. Once the 234-5Z and 291-Z facilities have been demolished, the Tri-Party Agreement Milestone – M-083-00A - *PFP Facility Transition and Selection Disposition Activities* will have been met.

## SCHEDULE MARGIN/MANAGEMENT RESERVE

Reference Appendix C.1 Formats 1, 2, 3, and 5 for specific schedule margin/Management Reserve (MR) utilization for this CAP.

## CRITICAL DECISION MILESTONE STATUS

Number	Title	* Due Date	**Forecast Date	Status/ Comment
CAP.1	Removal of 174 gloveboxes from 234-5Z	11/30/17	11/2/2017	Progress continued to work toward CD-4 closure as teams continued to prep glovebox/hoods for extraction during demolition. It is expected that final preparations for removal will be complete on May 9, 2017. At that time, gloveboxes will be staged until demolition of 234-5Z commences and completion of CAP.1 discrete scope will be completed. There was a seven-day loss for the month of April. This is a result of mitigation efforts associated with unexpected liquid in the ducting leading up to Filter Box 20. As the PFP Project continues to make progress on the behind schedule critical path work scope being performed, it is expected efficiencies will be recognized, evaluated, and as appropriate, implemented to help recover some of the schedule delays. The total number of gloveboxes removed to date is at 95 percent complete.

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

\*\*Forecasted Date reflects CD-4 due date without DOE contingency.

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

Nothing to report at this time.

### DOE ACTIONS / DECISIONS

Nothing to report at this time.

# Appendix C.1

## RL-0011\_C1 – PFP D&D

### (Removal of 174 Gloveboxes from 234-5Z)

# Contract Performance Reports

Format 1 - Work Breakdown Structure

Format 2 - Organizational Categories

Format 3 - Baseline

Format 4 - Staffing

Format 5 - Explanation and Problem Analysis



April 2017  
CHPRC-2017-04, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

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

DOLLARS IN

Thousands of \$

FORM APPROVED  
OMB No. 0704-0188

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>				<b>4. REPORT PERIOD</b>								
a. NAME C12M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME MPB-RL_0011_C1 - PFP D&D (ARRA/Base)				a. FROM (YYYYMMDD) 2017 / 03 / 27								
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE				b. TO (YYYYMMDD) 2017 / 04 / 23								
		c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> X YES (YYYYMMDD) 2009 / 09 / 18										
<b>5. CONTRACT DATA</b>																
a. QUANTITY 1	b. NEGOTIATED COST 317,545	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 0	d. TARGET PROFIT/FEE 9,878	e. TARGET PRICE 327,423	f. ESTIMATED PRICE 344,740	g. CONTRACT CEILING 327,423	h. ESTIMATED CONTRACT CEILING 344,740	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) Dickerson, Kala K		b. TITLE Prime Contract Compliance Manager								
		a. BEST CASE 332,469				c. SIGNATURE		d. DATE SIGNED (YYYYMMDD)								
		b. WORST CASE 335,079														
		c. MOST LIKELY 334,862	317,545	-17,317												
<b>8. PERFORMANCE DATA</b>																
CAPN-PBS Control Account.PARS 2 WBS (2)																
ITEM (1)	CURRENT PERIOD			CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION				
	WORK SCHEDULED (2)	WORK PERFORMED (3)	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)
RL-0011 Nuclear Mat Stab & Disp PFP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RL_0011_C1.02 Maintain Safe & Compliant PFP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RL_0011_C1.05 Disposition PFP Facility	0	168	77	168	91	235,514	234,993	259,377	-521	-24,384	0	0	0	235,514	259,682	-24,167
RL_0011_C1.06 Project Management & Support	0	0	0	0	0	11,990	11,990	12,477	0	-487	0	0	0	11,990	12,477	-487
RL_0011_C1.90 Usage Based Services Distributions -PBS RL-11	0	0	0	0	0	7,221	7,221	7,731	0	-510	0	0	0	7,221	7,731	-510
RL_0011_C1.98 Ramp-up and transition	0	0	0	0	0	19,399	19,399	19,253	0	147	0	0	0	19,399	19,253	147
RL_0011_C1.99 PBS RL-11 UBS, G-n-A, Direct Distrib	0	0	0	0	0	41,028	41,028	33,328	0	7,700	0	0	0	41,028	33,328	7,700
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
d. UNDISTRIBUTED BUDGET	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
e. SUBTOTAL	0	168	77	168	91	315,152	314,631	332,165	-521	-17,534	0	0	0	315,152	332,469	-17,317
f. MANAGEMENT RESERVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
g. TOTAL	0	168	77	168	91	315,152	314,631	332,165	-521	-17,534	0	0	0	317,545	332,469	-14,924
<b>9. RECONCILIATION TO CONTRACT BUDGET BASELINE</b>																
a. VARIANCE ADJUSTMENT										-521	-17,534					
b. TOTAL CONTRACT VARIANCE														317,545	332,469	-14,924

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

CLASSIFICATION (When Filled In)

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

DOLLARS IN

Thousands of \$

FORM APPROVED  
OMB No. 0704-0188

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME MPB - RL_0011_C1 - PFP D&D (ARRA/Base)		a. FROM (YYYYMMDD) 2017 / 03 / 27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 04 / 23	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> X YES (YYYYMMDD) 2009 / 09 / 18			

WBS.Resp Org Group  ITEM (1)	CURRENT PERIOD					CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)
	WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)						
35 - Business Services	0	0	0	0	0	60,427	60,427	52,580	0	7,847	0	0	0	60,427	52,580	7,847
3B - PFP Closure Project	0	168	77	168	91	254,725	254,204	279,584	-521	-25,381	0	0	0	254,725	279,889	-25,164
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
d. UNDISTRIBUTED BUDGET														0	0	0
e. SUBTOTAL (Performance Measurement Baseline)	0	168	77	168	91	315,152	314,631	332,165	-521	-17,534	0	0	0	315,152	332,469	-17,317
f. MANAGEMENT RESERVE														2,393		
g. TOTAL	0	168	77	168	91	315,152	314,631	332,165	-521	-17,534	0	0	0	317,545		

CLASSIFICATION (When Filled In)



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 MPB - RL_0011_C1 - PFP D&D (ARRA/Base)		a. FROM (YYYYMMDD) 2017 / 03 / 27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 04 / 23	
		c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18			

5. PERFORMANCE DATA															
WBS.Resp Org Group  ORGANIZATIONAL CATEGORY (1)	ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	FORECAST (Non-Cumulative)										AT COMPLETION (15)		
			SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS						
			+1 MAY 2017 (4)	+2 JUN 2017 (5)	+3 JULY 2017 (6)	+4 AUG 2017 (7)	+5 SEPT 2017 (8)	+6 OCT 2017 (9)	1st Qtr FY18 (10)	FY18 (11)	FY19-LC (12)	ATCOMPLETE (13)			
35 - Business Services	0	17	0	0	0	0	0	0	0	0	0	0	0	0	17
3B - PFP Closure Project	5	15418	11	0	3	10	0	0	0	0	0	0	0	0	15443
<b>g. TOTAL DIRECT</b>	<b>5</b>	<b>15435</b>	<b>11</b>	<b>0</b>	<b>3</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15460</b>

CLASSIFICATION (When Filled In)



# Appendix C.2

## Capital Asset Project

### RL-0011\_C2 - Demolition of PFP Facilities



T. E. Bratvold  
Vice President for  
Plutonium Finishing  
Plant Closure  
Project

April 2017  
CHPRC-2017-04, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

Progress continued to work toward critical decision (CD)-4 closure as teams continued to ready the Plutonium Finishing Plant (PFP) facilities for demolition. Demolition on the Plutonium Reclamation Facility (PRF) began on November 8, 2016. Demolition and load-out of waste associated with the 242-Z facility was completed in the month of April 2017. Completion of all demolition activities will occur in August 2017.

The following are key metrics associated with this CAP.

<i>Key Metrics</i>	<i>Current Month Plan</i>	<i>Current Month Actuals</i>	<i>Cumulative Plan</i>	<i>Cumulative Actuals</i>
Complete Cold and Dark/Demo Ready activities for 234-5Z	-	-	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
Complete Cold and Dark/Demo Ready activities for 291-Z	-	-	1	-
Complete Cold and Dark/Demo Ready activities for PFP Ancillary Facilities	-	-	15	3
Complete Demolition of 234-5Z	-	-	1	-
Complete Demolition of 236-Z	-	-	1	-
<b>COMPLETE</b> Complete Demolition of 242-Z	-	1	1	1
Complete Demolition of 291-Z	-	-	1	-
Complete Demolition of PFP Ancillary Facilities	-	-	15	3
Turnover Facility to Long Term Surveillance & Maintenance	-	-	-	-

## KEY ACCOMPLISHMENTS

### RL-0011\_C2 Accomplishments

- Completed demolition load-out of the 242-Z facility.
- Continued demolition activities on 236-Z facility.

## MAJOR ISSUES

- None currently identified.

## CORRECTIVE ACTION LOG

Reference Appendix C.2 Format 5 for specific corrective actions for this CAP.

## RISK MANAGEMENT STATUS

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

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

-  Increased Confidence
-  No Change
-  Decreased Confidence

Risk Title Risk Owner	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
<b>RL-0011/WBS-011.05.C3 (CAP.2)</b>										
<b>Explanation of major changes to the project monthly spotlight chart:</b> PFP-DEMO-23 was removed from this report as a "Realized Risk," as it no longer poses a threat to the project. PFP-DEMO-18 was removed as an "Unassigned Risk" as the risk has since been closed.										
<b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)										
No realized risks identified in the month of April.										
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)										
<b>FY2017 Risk Triggers</b> (Risk could be realized in FY2017)										
PFP-DEMO-05: Inclement Weather	Inclement weather, including moderate winds, low or high temperatures, and thunderstorms will impact the demolition of PFP. <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$0K, 32 days  *Cost increase will result in cost per day impacts from crews, and hotel load.			<b>Risk Trigger:</b> This risk was realized during the months of December, January, and February due to winter weather limiting demolition activities and causing site closures/early releases.  <table border="1" style="width: 100%;"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Obtain weather conditions for the area and adjust daily work scope/schedule accordingly</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <b>Mitigation Assessment:</b> Winter weather continues to impact PFP demolition activities. The project incurred a site closure day on February 9, 2017. There were also delays or early releases on February 8 and 15, 2017. The PFP project was also impacted due to increased snow removal, frozen water lines, and weather/temperature restrictions (freezing temperatures) on demolition activities. <b>During the month of April, the project was impacted by one day of high winds, which prevented demolition activities to be performed.</b> The risk remains critical due to upcoming high-wind and high-heat weather having the ability to impact the planned demolition. The PFP project will continue to adjust daily work scope to plan for projected weather impacts.	Mitigation action(s)	FC Date	%	Obtain weather conditions for the area and adjust daily work scope/schedule accordingly	Ongoing	N/A
Mitigation action(s)	FC Date	%								
Obtain weather conditions for the area and adjust daily work scope/schedule accordingly	Ongoing	N/A								
PFP-DEMO-21: Glovebox/Equipment Removal/Demolition Material Handling Event	A material handling event (e.g., dropped piece of process equipment) occurs during the PFP demolition, resulting in cost impacts and schedule delays. <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Low (10% to 25%) <b>Worst Case Impacts:</b> \$150K, 30 days			<b>Risk Trigger:</b> During pre-demolition/demolition activities in FY2017.  <table border="1" style="width: 100%;"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <b>Mitigation Assessment:</b> No changes in the month of April. The mitigation strategies have been put in place; as a result, the risk strategy is to accept with no further mitigation actions identified at this time. PFP will continue to adhere to the CHPRC ISMS program/hoisting and rigging program to include detailed analyses of potential hazards and identification of preventive measures to implement prior to starting the work. At this time, no alternative course of actions needed.	Mitigation action(s)	FC Date	%	None identified at this time.	N/A	N/A
Mitigation action(s)	FC Date	%								
None identified at this time.	N/A	N/A								

Risk Title Risk Owner	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
<b>RL-0011/WBS-011.05.C3 (CAP.2)</b>													
PFP-DEMO-07: Removal/Extraction of Equipment Takes Longer Than Planned	Controlled demolition of equipment, gloveboxes, and portions of the crosscutting process support systems (i.e. ventilation) result in cost impacts and schedule delays. <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Likely (75% to 90%) <b>Worst Case Impacts:</b> \$1.5 million, 60 days	●	↔	<p><b>Risk Trigger:</b> During pre-demolition/demolition activities in FY2017. Dates tracked in the FES.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Identify and pre-rig equipment with lifting slings.</td> <td>06/30/17</td> <td>50</td> </tr> <tr> <td>Initiate discussions early in the demo planning of the equipment being left in place for removal during demolish.</td> <td>06/30/17</td> <td>50</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b> No changes in the month of April. An effort will soon be taken to develop a removal path for several of the gloveboxes for Criticality Incredibility. If the opportunity presents itself, additional gloveboxes currently slated for removal during demolition (e.g. HC-227S, HC227T) will be removed during pre-demolition as risk mitigation strategy. At this time, no alternative course of actions needed.</p>	Mitigation action(s)	FC Date	%	Identify and pre-rig equipment with lifting slings.	06/30/17	50	Initiate discussions early in the demo planning of the equipment being left in place for removal during demolish.	06/30/17	50
Mitigation action(s)	FC Date	%											
Identify and pre-rig equipment with lifting slings.	06/30/17	50											
Initiate discussions early in the demo planning of the equipment being left in place for removal during demolish.	06/30/17	50											
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)													
PFP-DEMO-12: PFP/PRF Demolition Contamination Levels	Contamination levels on the canyon walls, floors, ventilation ducts, and the remaining areas of PFP will be higher than expected, thus requiring more stringent controls than expected or larger than expected waste volumes. Resulting in cost impacts, and schedule delays. <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$1.5 million, 22 days	●	↔	<p><b>Risk Trigger:</b> During pre-demolition/demolition activities in FY2017. Dates tracked in the FES.</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> At the end of January 2017, contamination was discovered outside the HCA/ARA/RA Zone established for demolition of the Plutonium Reclamation Facility (PRF) after a Continuous Air Monitor (CAM) alarm sounded just outside the HCA/ARA/RA during relocation of the debris pile. This resulted in evaluation of employees from the zone and could have resulted in contamination of Plutonium Finishing Plant (PFP) personnel. <i>As a result of this event, lessons learned have been incorporated in the future demolition work packages</i> to ensure the suppression misting instructions are stated clearly with no subjective verbiage. In addition, in-process monitoring of the pile/bucket has been incorporated during movement of the debris pile.</p>	Mitigation action(s)	FC Date	%	None identified at this time.	N/A	N/A			
Mitigation action(s)	FC Date	%											
None identified at this time.	N/A	N/A											
<b>Unassigned Risks</b> (Pending ownership of identified risks/opportunities)													
No unassigned risks identified in the month of April.													

## CRITICAL PATH SCHEDULE

The PFP Critical Path Schedule is a resource-driven float path in which the critical path starts with fixing the E4 ventilation system and preparing the filter rooms for demolition. Once complete, 234-5Z will be declared Cold & Dark and Ready for Demo. Demolition of 234-5Z will occur in the following sequence: 234-5ZA, Frontside, A-Labs, Backside Rooms/Plutonium Process Support Laboratories (PPSL), RMA Process Lines, RMC Process Lines, and the RADTU & Basement areas. Once the 234-5Z and 291-Z facilities have been demolished, the Tri-Party Agreement Milestone – M-083-00A - *PFP Facility Transition and Selection Disposition Activities* will have been met.

## SCHEDULE MARGIN/MANAGEMENT RESERVE

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

## CRITICAL DECISION MILESTONE STATUS

Number	Title	* Due Date	**Forecast Date	Status/ Comment
RL-011.C2	Completion Demolition of all PFP Facilities.	8/31/18	1/25/18	Progress continued to work toward CD-4 closure as teams continued to ready the PFP facilities for demolition. The PRF facility initiated demolition on November 8, 2016, and completion of demolition activities will occur in August 2017. There was a seven-day loss for the month of April. This is a result of efforts associated with unexpected liquid in the ducting leading up to Filter Box 20. As the PFP Project continues to make progress on the behind schedule critical path work scope being performed, it is expected that efficiencies will be recognized, evaluated, and as appropriate, implemented to help recover some of the schedule delays.

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

\*\*Forecasted Date reflects CD-4 due date without DOE contingency.

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

None to report at this time.

## DOE ACTIONS / DECISIONS

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



April 2017  
CHPRC-2017-04, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

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

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

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>										
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME RL_0011_C2 PFP Demolition Capital Asset Project		a. FROM (YYYYMMDD) 2017 / 03 / 27										
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 04 / 23										
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18												
<b>5. CONTRACT DATA</b>																
a. QUANTITY 1	b. NEGOTIATED COST 51,683	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 0	d. TARGET PROFIT/FEE 5,000	e. TARGET PRICE 56,683	f. ESTIMATED PRICE 50,294	g. CONTRACT CEILING 56,683	h. ESTIMATED CONTRACT CEILING 50,294	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) Dickerson, Kala K		b. TITLE Prime Contract Compliance Manager									
a. BEST CASE		42,323			c. SIGNATURE		d. DATE SIGNED (YYYYMMDD)									
b. WORST CASE		60,548														
c. MOST LIKELY		45,294	51,683	6,389												
<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	570	500	2,043	-69	-1,543	48,576	15,074	22,320	-33,501	-7,246	0	0	0	48,712	42,323	6,389
b. COST OF MONEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
c. GENERAL AND ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
d. UNDISTRIBUTED BUDGET													0	0	0	0
e. SUBTOTAL	570	500	2,043	-69	-1,543	48,576	15,074	22,320	-33,501	-7,246	0	0	0	48,712	42,323	6,389
f. MANAGEMENT RESERVE														2,971		
g. TOTAL	570	500	2,043	-69	-1,543	48,576	15,074	22,320	-33,501	-7,246	0	0	0	51,683		
<b>9. RECONCILIATION TO CONTRACT BUDGET BASELINE</b>																
a. VARIANCE ADJUSTMENT																
b. TOTAL CONTRACT VARIANCE																
														51,683	42,323	9,360

CLASSIFICATION (When Filled In)

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 RL_0011_C2 PFP Demolition Capital Asset Project		a. FROM (YYYYMMDD) 2017 / 03 / 27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 04 / 23	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18			

WBS.Resp Org Group  ITEM (1)	CURRENT PERIOD						CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)	
	WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)							
3B - PFP Closure Project	570	500	2,043	-69	-1,543	48,576	15,074	22,320	-33,501	-7,246	0	0	0	48,712	42,323	6,389	
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)	570	500	2,043	-69	-1,543	48,576	15,074	22,320	-33,501	-7,246	0	0	0	48,712	42,323	6,389	
f. MANAGEMENT RESERVE														2,971			
g. TOTAL	570	500	2,043	-69	-1,543	48,576	15,074	22,320	-33,501	-7,246	0	0	0	51,683			

CLASSIFICATION (When Filled In)



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 RL_0011_C2 PFP Demolition Capital Asset Project		a. FROM (YYYYMMDD) 2017 / 03 / 27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 04 / 23	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18			

5. PERFORMANCE DATA																
WBS.Resp Org Group  ORGANIZATIONAL CATEGORY (1)	ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	FORECAST (Non-Cumulative)									ENTER SPECIFIED PERIODS		AT COMPLETION (15)		
			SIX MONTH FORECAST BY MONTH (Enter names of months)									1st Qtr FY18 (10)	FY18 (11)		FY19-LC (12)	ATCOMPLETE (13)
			+1 MAY 2017 (4)	+2 JUN 2017 (5)	+3 JULY 2017 (6)	+4 AUG 2017 (7)	+5 SEPT 2017 (8)	+6 OCT 2017 (9)								
3B - PFP Closure Project	47	341	58	118	145	99	70	57	16	7	0	0	0	912		
<b>g. TOTAL DIRECT</b>	<b>47</b>	<b>341</b>	<b>58</b>	<b>118</b>	<b>145</b>	<b>99</b>	<b>70</b>	<b>57</b>	<b>16</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>912</b>		

CLASSIFICATION (When Filled In)

**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>	
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) 2017/03/27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017/04/23	
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:		569.5	500.0	2,042.7	-69.5	-12.2%	-1,542.7	-308.5%	0.88	0.24
Cumulative:		48,575.9	15,074.4	22,320.0	-33,501.5	-69.0%	-7,245.6	-48.1%	0.31	0.68
	<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:		48,711.9	42,322.9	6,388.9	13.1%	1.27	1.68			

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

Current Month:

Schedule Variance: The schedule variance for the current month is due to the progression of discrete demolition work scope (apportioned). The baseline plan assumed that the purchase of a second telehandler in support of demolition would arrive in the April time frame and was received in March. This is partially offset by completing historical BCWS on discrete demolition work scope associated with the demolition of 236-ZA and 242-Z. This scope was to be performed in the 3rd quarter of 2016 in the PMB baseline schedule, however, delays in getting 236-Z ready for demolition negatively impacted the start of both 236-Z and 242-Z demolition. Demolition of 236-Z is currently scheduled to complete on July 10, 2017. 242-Z has been physically demolished and waste loadout activities completed. This start of the demolition work for 291-Z and 234-5Z has been significantly impacted due to delays in getting 236-Z, 242-Z, 291-Z and 234-5Z ready for demolition.

Cost Variance: The unfavorable cost variance relates to the progress on discrete demolition work scope (apportioned) (see the schedule variance explanation), while a constant staff provides D&D support services. Demo experienced delays from weather (wind), contamination events, and greater efforts to complete 242-Z demolition than originally planned. This resulted in charges being incurred with minimal performance claimed. In addition, as the project gets further into the demolition phase of the PRF Canyon, increased utilization of Personnel Protective Equipment has increased to align with the original plan when the project reached this phase of demolition. Further, management assessment activities to support demolition of the 234-5Z and 291-Z facilities resulted in greater costs than originally assumed. Unplanned equipment procurements such as a 12,000 gallon water tank, excavator bucket, etc. are also contributing to this variance.

Cumulative to Date:

Schedule Variance: The cumulative schedule variance is due to delay of demolition of ancillary buildings and 236-Z caused by resources being redirected to support higher priority critical path work associated with decommissioning of 234-5Z, 242-Z, and 236-Z, as well as ready for demo activities associated with impacts from 236-Z Canyon Crane failure, contamination impacts from an unplanned criticality alarm failure, contamination recovery in the duct level of 234-5Z (two week delay in July 2016), increased characterization efforts, weather delays (snow and wind), recovery from demolition contamination events, and greater efforts to complete 242-Z demolition than originally planned. As a result of delays in the ready for demolition activities, the C2 CD-4 has been delayed. However, the TPA milestone M-083-00A has been re-negotiated to a due date of 9/30/2017 and is expected to be achieved. This is partially offset by the completion of demolition of the 2729-Z, and 2727-Z facilities, removal of gloveboxes, the completion of demolition activities for the 5th floor, 6th floor, 60% of the 4th floor, and South Canyon Airlock of 236-Z, demolition of 242-ZA, and completion of demolition activities in the 242-Z facility.

Cost Variance: The cumulative negative cost variance is associated with MSA subcontracted resources arriving to support PFP demolition that had a planned as P/Q shift support with a baseline start date of February 2016. Because the project is behind schedule in initiating demolition activities, and because the decision was made not to execute demolition activities for the PRF/242-Z facilities on P/Q shift, these resources currently have limited work to support which contributes to inability to take performance until the ready for demolition work scope is completed. To ensure that the project is able to continue demolition activities as identified in the current schedule, these costs will continue to be realized resulting in a potential unrecoverable cost variance. 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. In addition, 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. Finally, 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 the contributing factor, as a result of the weather impacts and an unexpected contamination event in the PRF demolition zone. In addition unplanned Management Assessment efforts for the 234-5Z and 291-Z facilities took longer than originally assumed. This is partially offset by recognized efficiencies associated with the demolition of the 2727-Z and 2729-Z facilities, and the 242-ZA and 242-Z Facilities.

**Impact:**

Schedule Impact: Work efforts in getting 234-5Z ready for Cold & Dark resulted in a loss of seven days for the month of April. This is a result of recovery efforts as a result of unexpected liquid in the ducting leading up to Filter Box 20 in 234-5Z. As the PFP Project continues to make progress on the behind schedule critical path work scope being performed, it is expected efficiencies will be recognized, evaluated, and implemented to recover schedule delays. The baseline completion date is not considered recoverable. The TPA Milestone TPA-083-00A, complete PFP facility transition and selected disposition activities of September 30, 2017 and is expected to be achieved.

Cost Impact: Stop Works, Safety Pauses, multiple contamination events, the PRF Crane failure, and associated recovery actions have negatively impacted the field work to ready 234-5Z, 236-Z, 242-Z, and 291-Z for demolition. In addition, readiness activities took longer than originally assumed as a result of increased requirements required by the Readiness Assessment team to demonstrate readiness for demolition of the PRF facility and efforts to mobilize took longer than originally assumed as a result of implemented recommendations from the readiness assessment team. An unplanned Management Assessment for the 234-5Z and 291-Z facilities to incorporate lessons learned from the demolition of the 236-Z and 242-Z facilities are also contributing to the cost impacts. Finally, in the early stages of this project subcontracted MSA resources specializing in facility demolition charged the project until the ready for demo status was achieved. In addition an unexpected contamination event that occurred during demolition of the PRF facility, and 242-Z has contributed to the cost impacts on this project.

The positive VAC is reflective of working one shift during demolition of 236-Z and 242-Z facilities rather than two as planned in the PMB. In addition, the duration for demolition of 234-5Z has been adjusted as it has been determined that due to the time of year demolition will occur, the number of days to demolish the facility will be less than originally planned. This reduces the amount of demolition and supervision labor resources needed, resulting in the reduction of EAC to BCWS values.

**Corrective Action:**

Cost: MSA subcontracted resources (e.g., Heavy Equipment Operators, Crane Operators, Mechanics, etc.) will be loaned out to other CHPRC and other Hanford contractors when the PFP project can support the needs of others and this offset unnecessary costs to the PFP Project. Action Ruben Trevino due 6/30/17

Schedule: Since weather impacts cannot be prevented and the mechanical failures were expected after reintroducing the equipment into service after sitting idle for an extended period of time, the only recovery is to work overtime when appropriate to attempt to recover schedule. Action: Ruben Trevino due 5/31/2017

Initiate demolition of the 234-5Z facility efficiently on P/Q shift. Action Ruben Trevino 5/30/2017

NOTE: Corrective actions associated with stop works/safety pauses, contamination events, and 236-Z Canyon Crane failure, and additional asbestos removal activities that are impacting the ability to initiate demolition activities in the RL-011.C2 capital asset project were previously addressed in the Operations project corrective action plan.

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

The following items are addressed, as applicable, per the EVMSIH:

1. Schedule Margin Analysis: In the EAC there is currently no remaining schedule margin in this capital asset account. Schedule margin was lost in April 2016 as a result of impacts from stop works associated with PremAire breathing air issues related to size reduction of the HA-9A glovebox and impacts from a safety pause associated with a PremAire Breathing Air radiological event resulting in increased survey requirements for PPE and a requirement for removing additional asbestos in the 234-5Z facility prior to demolition activities commencing.
2. IMS Data dictionary Changes: No change in the month of April
3. Forecast Schedule with No Baseline: No change in the month of April
4. UB Balance: No change in the month of April
5. Negative ACWP: No change in the month of April
6. EAC Analysis: Best Case = \$42,323; Most Likely = \$45,294; Worst Case = \$60,548
7. Negative CV > VAC: No change in the month of April
8. MR Transactions: No change in the month of April
10. Retroactive Changes: No change in the month of April
11. EVT Changes: No change in the month of April

\*During the Month of April CHPRC kicked off the FY2018 comprehensive EAC process (ZZCSMILE1117A, *Kickoff FY18 Annual Comprehensive EAC*), and is expected to finish mid-September (ZZCSMILE1117B, *Submit Final FY18 Annual Comprehensive EAC*).

Prepared by:

Date:

Approved by:

Date:

Appendix C.3  
Capital Asset Project  
RL-0012\_C1\_1 - Sludge Retrieval Project  
15-D-401



R. M. Geimer  
Vice President for  
K Basin Operations and  
Plateau Remediation

April 2017  
CHPRC-2017-04, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

M. A. Wright  
Vice President for  
Project Technical  
Services

## PROJECT SUMMARY

Completed installation of sludge transfer equipment (Tri-Party Agreement Milestone M-016-177) and initiated KW Basin/Annex pre-operational acceptance testing (KPAT) (PM-12-2-17) on April 20, 2017.

Based upon discussions between RL and CHPRC Senior Management, the Sludge Treatment Project (STP) team has modified the Field Execution Schedule (FES) to implement acceleration opportunities that could facilitate the transfer of all sludge to T Plant in fiscal year (FY) 2018. On March 27, 2017, CHPRC formally submitted letter CHPRC-1701045 R1 - CONTRACT NUMBER DE-AC06-08RL14788 – *Change Proposal CP 012 PRC 1646, Revision 0, Sludge Removal Project Acceleration of 105KW and T Plant* for RL approval. In order to meet the accelerated schedule, support from CHPRC and RL is required for the following assumptions:

- Significant overtime/weekend work is required to reduce the schedule duration.
- Approval of the integrated 105KW Documented Safety Analysis (DSA) must not affect the project critical path. This integrated DSA/technical safety requirement (TSR) includes as-built information from installation activities and therefore a subsequent “as-built” DSA/TSR submittal is not required.
- Sludge Removal Project (SRP) CD-4 approval must occur concurrently with commencing sludge retrieval operations.
- Approval of the T Plant safety documentation must be completed within 120 days of submittal.
- To demonstrate the current forecast date of Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) M-016-175, *Begin Sludge Removal From 105-KW Fuel Storage Basin*, the milestone has been disconnected from the risk analysis schedule margin. The current, non-risk adjusted forecast date to begin sludge removal is January 29, 2018.

Project breakdown structure (PBS) RL-0012 scope is 90 percent complete, and performance to date is positive with a cumulative Schedule Performance Index (SPI) of 1.00 and a cumulative Cost Performance Index (CPI) of 1.05.

## KEY ACCOMPLISHMENTS

### RL-0012 C1 1 Accomplishments

#### **KW Basin Sludge Retrieval Capital Assest Project**

- KW Annex/Basin Construction Project Technical Services (PTS)
  - o Continued executing Pre-KPAT Checkout work package in Basin/Annex and Control Room 20A. The purpose of this work package is to identify and correct minor anomalies prior to formal KPAT execution.
  - o Mobilized and installed the Ion Exchange Module (IXM) simulator system in loading bay to support KPAT.
  - o Supported KPAT Field Activities, including system walk downs and establishing test boundaries.
  - o Completed installation of stack monitoring equipment.
  - o Completed north tool shelf shielded cave extension.
  - o Completed touch-up painting in Annex, including application of line-up stripes for STS trailer on concrete approach and scale.
  - o Completed 75 percent of the building fire penetrations.

- o Completed annual inspection and installed new tags on both Hydrolance Deployment Beam assemblies in the Basin.
  - o Completed anchoring of all sump grating.
  - o Continued working Radiation Monitoring System equipment cables along with completing final terminations.
  - o Completed installation of the Supplemental Cooling system in the Annex Mechanical Room.
  - o All major punch list items associated with equipment installation were completed in April and the SRP submitted documentation of completion of Tri-Party Agreement Milestone M016-16-177 to CHPRC Contracts for transmittal to RL.
- Continued delays in review and approval of the 105KW Facility DSA and TSR threaten to impact the start of integrated KPAT activities that transfer 105K West Basin water into the 105K West Annex. CHPRC personnel have initiated an update to the current 105KW Basin Final Safety Analysis Report (FSAR) and TSR, which will incorporate the use of basin water for the integrated phase of KPAT. Approval of this update will allow integrated KPAT under the existing safety basis. The new 105KW Facility DSA and TSR must still be approved with sufficient schedule margin to support training, procedure development, formal safety basis implementation, and completion of readiness preparations prior to the Operational Readiness Review (ORR) that will authorize Engineered Container Retrieval and Transfer System (ECRTS) operation.
  - The Maintenance and Storage Facility (MASF) Pre-operational Acceptance Test (MPAT) Report was approved by the STP, Joint Test Group on January 31, 2017; however, comment incorporation and issuance has been given a lower priority than development and approval of KPAT Specifications/Procedures. The MPAT Test Report is forecast to complete in May 2017.
  - KPAT specifications and the KPAT test procedure that executes testing steps were approved in April, and KPAT was initiated on April 20, 2017. Completion of installation of sludge transfer equipment (M-016-177) and initiate KW Basin/Annex pre-operational acceptance test (KPAT) (PM-12-2-17).
  - ECRTS Procurement: Sludge Transport and Storage Container (STSC) Vessels and Installation of STSC Instrumentation/Appurtenances continued through the fiscal month. The project is on track to complete the first 12 STSC Assemblies by September 30, 2017 – 4 of 12 STSC assemblies have been completed as of April month end. American Boiler Works (ABW) will also complete fabrication of the final 11 STSC Shells by September 30, 2017. Once the final 11 STSC shells are fabricated, they will be transported to HiLine for installation of associated instrumentation and appurtenances.
  - Progress continues in development of the Operations and Maintenance Procedures supporting sludge removal and packaging operations.
  - Readiness documentation development continued as planned.

## MAJOR ISSUES

### Sludge Removal Project

#### Issue:

The schedule for receipt and implementation of the integrated DSA/TSR for the 105KW Basin/Annex will no longer support the KPAT Integrated Test without pushing SRP critical path.

#### Corrective Action:

CHPRC will update the DSA/TSR to incorporate RL comments and retransmit the document set to RL for approval. Simultaneously, a revision to the existing FSAR will be developed and submitted to RL for

review/approval. This FSAR revision should enable execution of integrated KPAT without impacting SRP Critical Path.

**Status:**

CHPRC personnel updated the Integrated DSA/TSR to incorporate comments provided by the RL Safety Basis Review Team (SBRT) and retransmitted the updated files to RL on April 12, 2017, via CHPRC-1700081A R3 - *Transmittal of PRC-STP-00946, Revision 0, 105KW Facility Documented Safety Analysis, PRC-STP-00992, Revision 0, 105KW Facility Technical Safety Requirements, and HNF SD SNF-FHA-001, Revision 5, Fire Hazards Analysis for the 105KW Facility*. The current schedule forecast for RL approval is June 16, 2017. In order to prevent a schedule delay on the initiation of the integrated KPAT, CHPRC will submit a revision to the FSAR/TSR for the 105K West Basin that will address the control necessary to facilitate completion of that integrated test. The FSAR revision is forecast to be submitted to RL for approval on May 25, 2017.

## CORRECTIVE ACTION LOG

Reference Appendix C.3 Format 5 for specific corrective actions for this CAP.

## RISK MANAGEMENT STATUS

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

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

-  Increased Confidence
-  No Change
-  Decreased Confidence

Risk Title	Unmitigated Risk Impacts	Assessment		Comments																								
		Month	Trend																									
<b>RL-0012/WBS-012 (CAP)</b>																												
<b>Explanation of major changes to the project monthly stoplight chart:</b> No major changes to the monthly stoplight chart in the month of <b>April</b> .																												
<b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>																												
STP-072: Delayed STSC/ECRTS Procurement & Delivery	Material delivery and fabrication issues at ECRTS vendor facilities delay the delivery of the components to the Sludge Treatment Plant (STP) resulting in cost impacts and schedule delays. Additionally, discovery of additional components requiring fabrication results in deliveries that challenge project baseline schedules.  <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Very Likely (>90%) <b>Worst Case Impacts:</b> \$3,000K 120 days			<p><b>Risk Event:</b> Event 1: In order to establish a reliable Sludge Transportation System Cask configuration capable of meeting the project's needs, several ports must be reconfigured to ensure reliable leak-tight integrity. This discovery was outside of baseline material procurement plans.</p> <table border="1"> <thead> <tr> <th>Risk recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Event 1 - Finalize Field FES activities dates consistent with change orders</td> <td>12/7/16</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Complete Procurement/Fabrication</td> <td>12/7/16</td> <td>05/31/17</td> <td>90</td> </tr> <tr> <td>Deliver equipment to 100K Area</td> <td>12/7/16</td> <td>07/15/17</td> <td>90</td> </tr> <tr> <td>Replace STS Cask Seals</td> <td>12/7/16</td> <td>07/31/17</td> <td>0</td> </tr> <tr> <td>Conduct post repair leak test.</td> <td>12/7/17</td> <td>08/01/17</td> <td>0</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b> Event 1: Site Visit with Leak Test Specialists forced redesign of Leak Test Tool. Based on BCR-012C-17-009R0 and the MR draw associated with it, additional parts are on order and a revised fabrication schedule was generated. Cask seal repair planned prior to 7/3/17. Proof test on new seal will likely be delayed until fabrication of Cask Leak Test Tool and qualification by Nondestructive examination (NDE) Contractor.</p>	Risk recovery action(s)	Risk Date	FC Date	%	Event 1 - Finalize Field FES activities dates consistent with change orders	12/7/16	Complete	100	Complete Procurement/Fabrication	12/7/16	05/31/17	90	Deliver equipment to 100K Area	12/7/16	07/15/17	90	Replace STS Cask Seals	12/7/16	07/31/17	0	Conduct post repair leak test.	12/7/17	08/01/17	0
Risk recovery action(s)	Risk Date	FC Date	%																									
Event 1 - Finalize Field FES activities dates consistent with change orders	12/7/16	Complete	100																									
Complete Procurement/Fabrication	12/7/16	05/31/17	90																									
Deliver equipment to 100K Area	12/7/16	07/15/17	90																									
Replace STS Cask Seals	12/7/16	07/31/17	0																									
Conduct post repair leak test.	12/7/17	08/01/17	0																									

Risk Title	Unmitigated Risk Impacts	Assessment		Comments																				
		Month	Trend																					
<b>RL-0012/WBS-012 (CAP)</b>																								
STP-067A Safety Classification of SSCs - DSA/TSR	<p>RL approval of the Documented Safety Analysis (DSA)/Technical Safety Requirements (TSR) takes longer than the assumptions planned for in the baseline.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Medium (26% to 74%)</p> <p><b>Worst Case Impacts:</b> \$300K 120 days</p>	●	↑	<p><b>Risk Event:</b> CHPRC sent the DSA and TSR to RL for review and approval on October 20, 2016, in letter CHPRC-1604692. RL rejected this submittal via correspondence 1700081A/17-NSD-0006. CHPRC resubmitted the DSA/TSR via CHPRC-1700081A R3. The Original project baseline included 120 calendar days for RL to approve the safety basis document; however, it has now been 186 days (as of 4/23/17) since the original submittal with formal approval still not imminent.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Risk recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Solicit Senior RL &amp; CHPRC involvement in resolving deficiencies.</td> <td>1/28/17</td> <td>As Needed</td> <td>N/A</td> </tr> <tr> <td>Conduct interface meetings between RL Safety Basis Review Team (SBRT) &amp; CHPRC Nuclear Safety personnel to negotiate a product that is acceptable to RL.</td> <td>1/28/17</td> <td>As Required</td> <td>55</td> </tr> <tr> <td>CHPRC to appoint an independent facilitator to assist in resolution of RL comments.</td> <td>1/28/17</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Prepare a change order to obtain Management Reserve for realized risk.</td> <td>1/28/17</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b> RL &amp; CHPRC Senior Management have met multiple times in an attempt to resolve differences on the DSA/TSR Submittal. All DSA/TSR comments have been dispositioned as of 2/17/17. Obtaining RL concurrence on comment resolution is now forecasted to complete 5/18/17. CHPRC and RL agreed to commission an independent facilitator (who arrived 3/9/17) to assist in resolving RL comments against the DSA/TSR Submittal. Efforts continue to produce a product acceptable to the SBRT.</p>	Risk recovery action(s)	Risk Date	FC Date	%	Solicit Senior RL & CHPRC involvement in resolving deficiencies.	1/28/17	As Needed	N/A	Conduct interface meetings between RL Safety Basis Review Team (SBRT) & CHPRC Nuclear Safety personnel to negotiate a product that is acceptable to RL.	1/28/17	As Required	55	CHPRC to appoint an independent facilitator to assist in resolution of RL comments.	1/28/17	Complete	100	Prepare a change order to obtain Management Reserve for realized risk.	1/28/17	Complete	100
Risk recovery action(s)	Risk Date	FC Date	%																					
Solicit Senior RL & CHPRC involvement in resolving deficiencies.	1/28/17	As Needed	N/A																					
Conduct interface meetings between RL Safety Basis Review Team (SBRT) & CHPRC Nuclear Safety personnel to negotiate a product that is acceptable to RL.	1/28/17	As Required	55																					
CHPRC to appoint an independent facilitator to assist in resolution of RL comments.	1/28/17	Complete	100																					
Prepare a change order to obtain Management Reserve for realized risk.	1/28/17	Complete	100																					

Risk Title	Unmitigated Risk Impacts	Assessment		Comments															
		Month	Trend																
<b>RL-0012/WBS-012 (CAP)</b>																			
<b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)																			
No critical risks identified in the month of <b>April</b> .																			
<b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)																			
<b>FY2017 Risk Triggers</b> (Risk could be realized in FY2017)																			
STP-103: K Basin Pre-Operational Acceptance Testing (KPAT) & ECRTS Startup	The ECRTS equipment does not operate as expected, requiring increased engineering, startup, operations, and construction. Firm Fixed Price contractor support; as well as equipment replacement, procurement, and retesting. Realization of this risk would also require additional training, procedure revision, and design modifications as a result of construction testing and/or Lines of Inquiry for Readiness Review resulting in cost impacts and schedule delays. <b>Risk Handling Strategy:</b> Control  <b>Probability:</b> Medium (26% to 74%) <b>Worst Case Impacts:</b> \$4.5 million, 90 days			<b>Risk Trigger:</b> 1) The ECRTS equipment does not operate as expected. 2) Unexpected attrition of critical testing personnel.															
		<table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Develop and refine procedures based upon feedback from testing and operations personnel.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Develop streamline strategy (work packages and procedures) to perform in-basin/annex integrated testing and troubleshooting.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Utilize overtime to offset schedule impacts.</td> <td>As Needed</td> <td>N/A</td> </tr> <tr> <td>Closely monitor employee satisfaction and consider employee incentive to retain key test personnel.</td> <td>As Needed</td> <td>N/A</td> </tr> </tbody> </table>			Mitigation action(s)	FC Date	%	Develop and refine procedures based upon feedback from testing and operations personnel.	Complete	100	Develop streamline strategy (work packages and procedures) to perform in-basin/annex integrated testing and troubleshooting.	Complete	100	Utilize overtime to offset schedule impacts.	As Needed	N/A	Closely monitor employee satisfaction and consider employee incentive to retain key test personnel.	As Needed	N/A
Mitigation action(s)	FC Date	%																	
Develop and refine procedures based upon feedback from testing and operations personnel.	Complete	100																	
Develop streamline strategy (work packages and procedures) to perform in-basin/annex integrated testing and troubleshooting.	Complete	100																	
Utilize overtime to offset schedule impacts.	As Needed	N/A																	
Closely monitor employee satisfaction and consider employee incentive to retain key test personnel.	As Needed	N/A																	
<b>Mitigation Assessment:</b> KPAT Testing is in progress. No significant equipment failures to date.																			
<b>Unassigned Risks</b> (Pending ownership of identified threats/opportunities)																			
No unassigned risks identified in the month of <b>April</b> .																			

### CRITICAL PATH SCHEDULE

The critical path flows through KPAT. Following a successful Operational Readiness Review, RL will provide Authorization to Commence Retrieval Operations in parallel with the DOE HQ review/approval of Critical Decision (CD)-4. Completing retrieval operations, including the filling of STSCs with sludge and transferring them to T Plant, to complete Tri-Party Agreement Milestone M-016-176, *Complete Sludge Removal from 105-KW Fuels Storage Basin*, is outside the current contract period in FY2019. However, the Sludge Treatment Project (STP) Team has modified the Field Execution Schedule (FES) to implement acceleration opportunities, which could facilitate the transfer of all sludge to T Plant in FY2018.

### SCHEDULE MARGIN/MANAGEMENT RESERVE

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

## CRITICAL DECISION MILESTONE STATUS

Number	Title	*Due Date	**Forecast Date	Status/ Comment
15-D-401	CD-4, Project Completion	11/30/2019	8/02/2018	The forecast date includes schedule margin from the Project's risk analysis. Project schedule margin is 123 days. The current forecast date before schedule margin and allowance for CD 4 is 1/29/2018.

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

\*\*Forecasted Date reflects CD-4 due date without DOE contingency.

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

None currently identified.

## DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	RL Due Date
RL Review & Comment on Emergency Planning Hazard Assessment (EPHA)	5/24/17	7/12/17
RL Issue SER for KW Facility DSA/TSR	6/10/17	6/16/17
RL Concur on KW Facility DSA/TSR Comment Resolution	2/17/17 (A)	5/25/17
RL Prepare KW Facility DSA/TSR	5/26/17	6/06/17
RL Review KPAT FSAR / TSR Change	5/31/17	6/29/17
RL SRB Review of KW Facility DSA/TSR	6/09/17	6/09/17
RL Distribute the Approved POA	5/22/17	5/23/17
RL IP Issued	5/22/17	11/20/17
RL POA Issued and Distributed	5/22/17	6/12/17
RL Approve / Comment Plan of Action (POA) - K-Basins	5/25/17	6/12/17
RL Final Approval of POA - K-Basins	6/17/17	6/23/17
RL Approve OTRS	5/26/17	7/19/17

# Appendix C.3

## RL-0012\_C1\_1 – Sludge Retrieval Project 15-D-401

### Contract Performance Reports

Format 1 - Work Breakdown Structure

Format 2 - Organizational Categories

Format 3 - Baseline

Format 4 - Staffing

Format 5 - Explanation and Problem Analysis



April 2017  
CHPRC-2017-04, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

CONTRACT PERFORMANCE REPORT FORMAT 1 - WORK BREAKDOWN STRUCTURE													FORM APPROVED OMB No. 0704-0188						
DOLLARS IN	Thousands of \$																		
<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 15_D_401 KW Basin Sludge Removal Project				a. FROM (YYYYMMDD)							
b. LOCATION (Address and ZIP Code) Richland, WA				b. NUMBER RL14788				b. PHASE				2017 / 03 / 27							
				c. TYPE CPAF				d. SHARE RATIO				c. EVMS ACCEPTANCE NO <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18							
												2017 / 04 / 23							
<b>5. CONTRACT DATA</b>																			
a. QUANTITY 1	b. NEGOTIATED COST 295,873	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 0	d. TARGET PROFIT/FEE 7,950	e. TARGET PRICE 303,823	f. ESTIMATED PRICE 296,628	g. CONTRACT CEILING 303,823	h. ESTIMATED CONTRACT CEILING 296,628						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) Dickerson, Kala K			b. TITLE Prime Contract Compliance Manager						
			282,983							c. SIGNATURE			d. DATE SIGNED (YYYYMMDD)						
a. BEST CASE			289,629																
b. WORST CASE			288,678		295,873		7,195												
c. MOST LIKELY																			
<b>8. PERFORMANCE DATA</b>																			
CAPN.PBS Control Account.PARS 2 WBS (2)		CURRENT PERIOD					CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION				
		BUDGETED COST		ACTUAL COST WORK PERFORMED		VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED		VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)
ITEM (1)		WORK SCHEDULED (2)	WORK PERFORMED (3)	COST WORK PERFORMED (4)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	COST WORK PERFORMED (9)	SCHEDULE (10)	COST (11)								
RL-0012 SNF Stabilization & Disp																			
RL_0012_C1_1.16 Sludge Treatment Project		0	0	0	0	0	156,861	156,861	156,760	0	101	0	0	0	156,861	156,760	101		
RL_0012_C1_1.17 D-401 KW Basin Sludge Removal Project		3,748	2,150	3,348	-1,598	-1,199	107,695	108,706	101,291	1,011	7,415	0	0	0	133,147	126,223	6,924		
b. COST OF MONEY		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
c. GENERAL AND ADMINISTRATIVE		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
d. UNDISTRIBUTED BUDGET																			
e. SUBTOTAL		3,748	2,150	3,349	-1,598	-1,199	264,556	265,567	258,051	1,011	7,516	0	0	0	290,008	282,983	7,025		
f. MANAGEMENT RESERVE															5,695				
g. TOTAL		3,748	2,150	3,349	-1,598	-1,199	264,556	265,567	258,051	1,011	7,516	0	0	0	295,703				
<b>9. RECONCILIATION TO CONTRACT BUDGET BASELINE</b>																			
a. VARIANCE ADJUSTMENT																			
b. TOTAL CONTRACT VARIANCE																			
										1,011		7,516		295,703			282,983		12,720

CLASSIFICATION (When Filled In)

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 15_D_401 KW Basin Sludge Removal Project		a. FROM (YYYYMMDD)	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		2017 / 03 / 27	
		c. TYPE CPAF		d. SHARE RATIO		b. TO (YYYYMMDD) 2017 / 04 / 23	
				c. EVMS ACCEPTANCE NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18			

WBS.Resp Org Group	CURRENT PERIOD						CUMULATIVE TO DATE						REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (8)	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)							
3G - K Basin Oper & Plateau Remediation Project	3,748	2,150	3,349	-1,598	-1,199	264,556	265,567	258,051	1,011	7,516	0	0	0	290,008	282,983	7,025		
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)	3,748	2,150	3,349	-1,598	-1,199	264,556	265,567	258,051	1,011	7,516	0	0	0	290,008	282,983	7,025		
f. MANAGEMENT RESERVE														5,695				
g. TOTAL	3,748	2,150	3,349	-1,598	-1,199	264,556	265,567	258,051	1,011	7,516	0	0	0	295,703				

CLASSIFICATION (When Filled In)



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 15_D_401 KW Basin Sludge Removal Project		a. FROM (YYYYMMDD) 2017 / 03 / 27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 04 / 23	
		c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE NO <input type="checkbox"/> X YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18			

5. PERFORMANCE DATA															
WBS.Resp Org Group  ORGANIZATIONAL CATEGORY (1)	ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	FORECAST (Non-Cumulative)												AT COMPLETION (15)
			SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS						
			+1 MAY 2017 (4)	+2 JUN 2017 (5)	+3 JULY 2017 (6)	+4 AUG 2017 (7)	+5 SEPT 2017 (8)	+6 OCT 2017 (9)	1st Qtr FY18 (10)	FY18 (11)	FY19-LC (12)	ATCOMPLETE (13)			
3G - K Basin Oper & Plateau Remediation Project	77	6771	74	74	74	73	74	71	107	106	0	0	0	7423	
<b>g. TOTAL DIRECT</b>	<b>77</b>	<b>6771</b>	<b>74</b>	<b>74</b>	<b>74</b>	<b>73</b>	<b>74</b>	<b>71</b>	<b>107</b>	<b>106</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7423</b>	

CLASSIFICATION (When Filled In)



Appendix C.4  
Capital Asset Project  
RL-0041\_C1 – Project 618-10, 316-4 and  
600-63 Waste Sites



T. L. Hobbes  
Vice President for  
618-10 Burial Ground and  
Environmental Restoration  
Disposal Facility

April 2017  
CHPRC-2017-04, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

Work at the 618-10 Burial Ground and 316-4 Waste Site continued as planned in the month of April. The retrieval of waste from the Steel Vertical Pipe Units (VPU) continued with significant progress. Mass excavation of soil from the 618-10 Trench resulted in a large number of cans being shipped to the Environmental Restoration Disposal Facility (ERDF). Overburden excavation from the 316-4 Waste Site continued as planned. Planning for excavation at the 600-63 Waste Site continues. In addition, the project supported the development of a Truthful Cost or Pricing Data deliverable that is anticipated to be sent to RL in May.

## KEY ACCOMPLISHMENTS

### 618-10 Burial Ground

- 618-10 Burial Ground Vertical Pipe Units
  - Completed 23 Steel VPU retrieval segments, with a total of 47 retrieval segments completed out of 56.
- 618-10 Burial Ground Mass Excavation
  - 17,856 tons of contaminated soil sent to ERDF; 45,461 total tons sent to ERDF to date.

### 316-4 Waste Site

- Began excavation of contaminated soil column – 351 cans (7,484 tons) sent to ERDF.
- Excavated 54,054 tons of overburden soil; 217,886 tons excavated to date.

### 600-63 Waste Site

- Continued planning and design activities for engineering design and remaining engineering checklist items.
- Prepared for overhead lighting removal to enable access to the waste site.

### 618-10 Burial Ground Complex Demobilization

- Shipped Wacker heater to the 324 Building project.
- Sent 20 ecology blocks to the Plutonium Finishing Plant (PFP) for re-use.
- Miscellaneous excess materials and personal protective equipment (PPE) gathered together to ship off project.

## MAJOR ISSUES

No major issues to report on at this time.

## CORRECTIVE ACTION LOG

Reference Appendix C.4 Format 5 for specific corrective actions for this CAP.

## RISK MANAGEMENT STATUS

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

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

-  Increased Confidence
-  No Change
-  Decreased Confidence

Unmitigated Risk Impacts	Assessment		Comments											
	Month	Trend												
<b>RL-0041/WBS-041</b>														
<b>Explanation of major changes to the project monthly spotlight chart:</b> No major changes to the monthly spotlight chart in the month of <b>April</b> .														
<b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>														
RCC-316-4-09: 316-4 Discovery of Unexpected Waste/ Contamination	Discovery of unexpected waste/contamination, waste/contamination quantities above what is assumed, waste/contamination that is above and beyond COCs and/or waste profile, and/or waste/contamination is found in the assumed clean area of the design. Resulting in greater than planned RAD controls resulting in cost and schedule impacts.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Very Low (<10%) <b>Worst Case Impacts:</b> \$240K, 48 day	 	<b>Risk Event:</b> On Tuesday, November 29, 2016, CHPRC discovered debris (wood, metal, etc.) in the 316-4 overburden removal, and then on Wednesday, November 30, 2016, radiological contaminated soil and contaminated debris (plastic and piping) was encountered that was buried in the top 6 feet of overburden at the 316-4 waste site. On Wednesday, January 4, 2017 and Tuesday, January 24, 2017, additional contamination was discovered. <b>Contamination was discovered approximately four feet above the anticipated location on March 27, 2017.</b>  <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Risk recovery action(s)</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Send backfill stockpile to ERDF</td> <td rowspan="2" style="text-align: center;">11/29/16</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> <tr> <td>Update TCoPD to align with found conditions</td> <td style="text-align: center;">5/30/17</td> <td style="text-align: center;">0</td> </tr> </tbody> </table> <b>Recovery Action Assessment:</b> CHPRC has realized cost and schedule impacts, resulting from this change in conditions. <b>Efforts continue to quantify schedule and cost impacts.</b> CHPRC has and continues to perform all actions that may mitigate impacts; however, CHPRC plans to capture any scope and cost changes <b>resulting from the contamination discoveries prior to March 2017</b> in the TCoPD for the corresponding change proposal (CP 041 304 1600).	Risk recovery action(s)	Risk Date	FC Date	%	Send backfill stockpile to ERDF	11/29/16	Complete	100	Update TCoPD to align with found conditions	5/30/17	0
Risk recovery action(s)	Risk Date	FC Date	%											
Send backfill stockpile to ERDF	11/29/16	Complete	100											
Update TCoPD to align with found conditions		5/30/17	0											
<b>Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)</b>														
No critical risks identified in the month of <b>April</b> .														
<b>High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)</b>														
<b>Lifecycle Risk Triggers (Risk could be realized at any point of the project)</b>														
RCC-618-10-07: Contamination Event at 618-10 Waste Site	During fieldwork activities, a contamination event occurs that requires corrective actions, resulting in schedule and cost impacts.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Low (10% to 25%) <b>Worst Case Impacts:</b> \$1,288K, 64 days	 	<b>Risk Trigger Metric:</b> The risk could be triggered by high winds or operational upsets (i.e. spills or airborne release).  <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Enhanced radiological controls implemented on project.</td> <td style="text-align: center;">Ongoing</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table> <b>Mitigation Assessment:</b> No changes in the month of <b>April</b> . Much of the 618-10 work is performed in hazardous and radioactive environments. By its nature, the work can be dangerous. Although CHPRC procedures, safety programs, and training programs are designed to minimize the potential loss of control of hazardous/radioactive substances, such an occurrence could be deemed to be significant enough to warrant corrective actions outside the baseline (i.e. a prolonged work shutdown).	Mitigation action(s)	FC Date	%	Enhanced radiological controls implemented on project.	Ongoing	N/A					
Mitigation action(s)	FC Date	%												
Enhanced radiological controls implemented on project.	Ongoing	N/A												

Unmitigated Risk Impacts	Assessment		Comments						
	Month	Trend							
<b>RL-0041/WBS-041</b>									
RCC-618-10-09: Discovery of Unexpected Waste/Contamination  Discovery of waste/contamination quantities above what is assumed, waste/contamination that is above and beyond COCs or waste profile, or waste/contamination is found in the assumed clean area of the design. Resulting in greater than planned RAD controls resulting in cost and schedule impacts.  <b>Risk Handling Strategy:</b> Accept  <b>Probability:</b> Very Low (<10%) <b>Worst Case Impacts:</b> \$1,280K, 64 days	 	<b>Risk Trigger Metric:</b> This risk has previously been realized as more drums than planned were discovered. This risk has the potential to occur again during mass excavation if additional waste/contamination is discovered.							
		<table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Closely managing waste inventories and discoveries, and making adjustments as required.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table>		Mitigation action(s)	FC Date	%	Closely managing waste inventories and discoveries, and making adjustments as required.	Ongoing	N/A
Mitigation action(s)	FC Date	%							
Closely managing waste inventories and discoveries, and making adjustments as required.	Ongoing	N/A							
<b>Unassigned Risks</b> (Pending ownership of identified threats/opportunities)									
No unassigned risks identified in the month of April.									

### CRITICAL PATH SCHEDULE

The critical path flows through 618-10 Burial Ground closeout sampling and analysis to support preparing calculations for backfill concurrence. Following receipt of backfill concurrence from RL/EPA, the project will begin backfill fieldwork activities. After successful completion of backfill, the project will finish infrastructure demobilization.

### SCHEDULE MARGIN/MANAGEMENT RESERVE

Reference Appendix C.4 Formats 1, 2, 3, and 5 for specific schedule margin/MR utilization for this CAP.

### CRITICAL DECISION MILESTONE STATUS

Number	Title	*Due Date	**Forecast Date	Status/Comment
TBD				CD-4 closeout pending contract definitization.

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

None to report at this time.

## DOE ACTIONS / DECISIONS

Description	CHPRC Delivery Date	RL Due Date
RL and Regulator Review of Closeout Sampling Instructions for 600-63 Waste Site	5/2/17	6/15/17
RL and Regulator Review of Closeout Sampling Instructions for 316-4 Waste Site	6/20/17	8/3/17
RL and Regulator Review of Closeout Sampling Instructions for 618-10 Burial Ground	7/19/17	9/1/17
RL/EPA Review & Approve Backfill Concurrence for 316-4 Waste Site	10/20/17	10/27/17
RL/EPA Review & Approve Backfill Concurrence for 600-63 Waste Site	11/9/17	11/22/17
RL and Regulator Review of CVP and Waste Site Reclassification Form for 600-63 Waste Site	11/9/17	11/23/17
RL and Regulator Review of CVP and Waste Site Reclassification Form for 316-4 Waste Site	11/15/17	12/29/17
RL/EPA Review & Approve Backfill Concurrence for 618-10 Burial Ground	1/23/18	1/30/18
RL and Regulator Review of CVP and Waste Site Reclassification Form for 618-10 Burial Ground	3/14/18	4/27/18

# Appendix C.4

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

### Contract Performance Reports

Format 1 - Work Breakdown Structure

Format 2 - Organizational Categories

Format 3 - Baseline

Format 4 - Staffing

Format 5 - Explanation and Problem Analysis



April 2017  
CHPRC-2017-04, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

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

DOLLARS IN Thousands of \$

FORM APPROVED  
OMB No. 0704-0188

<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>		<b>3. PROGRAM</b>		<b>4. REPORT PERIOD</b>									
a. NAME CH2M HILL Plateau Remediation Company		a. NAME PARS II - RL-0041.C1 Base Funded Nuc Fac D&D River Corr		a. NAME PARS II - RL-0041.C1 Base Funded Nuc Fac D&D River Corr		a. FROM (YYYYMMDD)  2017 / 03 / 27									
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD)  2017 / 04 / 23									
		c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE NO <input type="checkbox"/> X YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18											
<b>5. CONTRACT DATA</b>															
a. QUANTITY 1	b. NEGOTIATED COST 0	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK 70,486	d. TARGET PROFIT/FEE 0	e. TARGET PRICE 0	f. ESTIMATED PRICE 63,163	g. CONTRACT CEILING 0	h. ESTIMATED CONTRACT CEILING 63,163	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) Dickerson, Kala K		b. TITLE Prime Contract Compliance Manager								
a. BEST CASE		63,163			c. SIGNATURE		d. DATE SIGNED (YYYYMMDD)								
b. WORST CASE		63,398													
c. MOST LIKELY		63,163	70,486	7,322											
<b>8. PERFORMANCE DATA</b>															
CAPN.PBS Control Account.PARS 2 WBS (2)		CURRENT PERIOD				CUMULATIVE TO DATE				REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
ITEM (1)		BUDGETED COST		ACTUAL COST WORK PERFORMED		BUDGETED COST		ACTUAL COST WORK PERFORMED		COST VARIANCE (12a)			SCHEDULE VARIANCE (12b) BUDGET (13)		
		WORK SCHEDULED (2)	WORK PERFORMED (3)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	SCHEDULE (10)	COST (11)				BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)
RL-0041 Nuc Fac D&D - RC Closure Proj															
RL_0041_C1.05 River Corridor Transition Capital Scope		4,838	3,947	2,792	-891 1,155	33,110	33,132	25,843	22 7,289	0	0	0	70,486	63,163	7,322
b. COST OF MONEY		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
d. UNDISTRIBUTED BUDGET													0	0	0
e. SUBTOTAL		4,838	3,947	2,792	-891 1,155	33,110	33,132	25,843	22 7,289	0	0	0	70,486	63,163	7,322
f. MANAGEMENT RESERVE													0		
g. TOTAL		4,838	3,947	2,792	-891 1,155	33,110	33,132	25,843	22 7,289	0	0	0	70,486		
<b>9. RECONCILIATION TO CONTRACT BUDGET BASELINE</b>															
a. VARIANCE ADJUSTMENT															
b. TOTAL CONTRACT VARIANCE								22 7,289 70,486 63,163 7,322							

CLASSIFICATION (When Filled In)

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 PARS II - RL-0041.C1 Base Funded Nuc Fac D&D River Corr		a. NAME PARS II - RL-0041.C1 Base Funded Nuc Fact D&D River Corr		a. FROM (YYYYMMDD) 2017 / 03 / 27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 04 / 23	
c. TYPE CPAF		d. SHARE RATIO		c. EVMS ACCEPTANCE NO <input type="checkbox"/> X YES (YYYYMMDD) 2009 / 09 / 18			

WBS.Resp Org Group  ITEM (1)	CURRENT PERIOD						CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED COST		ACTUAL COST WORK PERFORMED (9)	VARIANCE		COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)	
	WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)		SCHEDULE (10)	COST (11)							
3H - 618-10 and ERDF	4,838	3,947	2,792	-891	1,155	33,110	33,132	25,843	22	7,289	0	0	0	70,486	63,163	7,322	
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)	4,838	3,947	2,792	-891	1,155	33,110	33,132	25,843	22	7,289	0	0	0	70,486	63,163	7,322	
f. MANAGEMENT RESERVE														0			
g. TOTAL	4,838	3,947	2,792	-891	1,155	33,110	33,132	25,843	22	7,289	0	0	0	70,486			

CLASSIFICATION (When Filled In)



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 PARS II - RL-0041.C1 Base Funded Nuc Fac D&D River Corr		a. NAME PARS II - RL-0041.C1 Base Funded Nuc Fact D&D River Corr		a. FROM (YYYYMMDD) 2017 / 03 / 27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE		b. TO (YYYYMMDD) 2017 / 04 / 23	
		c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18			

5. PERFORMANCE DATA														
WBS.Resp Org Group  ORGANIZATIONAL CATEGORY (1)	ACTUAL CURRENT PERIOD (2)	ACTUAL END OF CURRENT PERIOD (Cumulative) (3)	FORECAST (Non-Cumulative)											AT COMPLETION (15)
			SIX MONTH FORECAST BY MONTH (Enter names of months)						ENTER SPECIFIED PERIODS					
			+1 MAY 2017 (4)	+2 JUN 2017 (5)	+3 JULY 2017 (6)	+4 AUG 2017 (7)	+5 SEPT 2017 (8)	+6 OCT 2017 (9)	1st Qtr FY18 (10)	FY18 (11)	FY19-LC (12)	ATCOMPLETE (13)		
3H - 618-10 and ERDF	88	736	99	96	88	90	84	47	94	347	0	0	1682	
<b>g. TOTAL DIRECT</b>	<b>88</b>	<b>736</b>	<b>99</b>	<b>96</b>	<b>88</b>	<b>90</b>	<b>84</b>	<b>47</b>	<b>94</b>	<b>347</b>	<b>0</b>	<b>0</b>	<b>1682</b>	

CLASSIFICATION (When Filled In)

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>	
a. NAME CH2M HILL Plateau Remediation Company		a. NAME Plateau Remediation Contract		a. NAME 041 - RL-41 Nuclear Facility D&D - River Corridor				a. FROM (YYYYMMDD) 2017/03/27	
b. LOCATION (Address and ZIP Code) Richland, WA		b. NUMBER RL14788		b. PHASE				b. TO (YYYYMMDD) 2017/04/23	
		c. TYPE CPAF	d. SHARE RATIO	c. EVMS ACCEPTANCE No                      X                      Yes                      (YYYYMMDD) 2009 / 09 / 18					
<b>5. Evaluation</b>									
<b>Direct Projects</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:	4,837.7	3,947.1	2,791.9	-890.6	-18.4%	1,155.3	29.3%	0.82	1.41
Cumulative:	33,109.9	33,131.7	25,842.5	21.8	0.1%	7,289.2	22.0%	1.00	1.28
	<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:	70,485.7	63,163.3	7,322.4	10.4%	0.84	1.00			
<b>Explanation of Variance/Description of Problem:</b>									
CURRENT MONTH The current month unfavorable schedule variance is primarily due to the delayed receipt of drum waste from an offsite waste processing subcontractor. Additionally, there were delays at the 316-4 Waste Site in the loadout of overburden soils due to a higher volume of contaminated soil being excavated. The current month favorable cost variance is primarily due to the efficient use of shared resources amongst the project, which has also led to a reduction in the amount of materials that need to be purchased.									
CONTRACT TO DATE The cumulative schedule variance is within threshold. The cumulative favorable cost variance is partially due to the sharing of resources and materials among the projects, which has resulted in fewer purchased materials and lower labor costs.									
VARIANCE AT COMPLETION The favorable variance at completion reflects the efficient practice of sharing resources and materials amongst the 618-10 Complex projects. Additionally, the processing costs of the drums from the 618-10 Burial ground are anticipated to be less than what had been planned.									
IMPACTS There are no current impacts to the project schedule or cost.									
<b>Corrective Action:</b>									
Corrective Action: There are no corrective actions required at this time.									
<b>Monthly Summary (to include technical causes of VARs, Impacts) and Corrective Action(s):</b>									
1. Schedule Margin Analysis: N/A, pending definitization of the scope. 2. IMS Data dictionary Changes: None in the month of April. 3. Forecast Schedule with No Baseline: None in the month of April. 4. UB Balance: N/A 5. Negative ACWP: N/A 6. EAC Analysis: N/A, pending definitization of the scope. 7. Negative CV > VAC: N/A 8. MR Transactions: None in the month of April. 9. Freeze Period Changes: None in the month of April. 10. Retroactive Changes: None in the month of April. 11. EVT Changes: None in the month of April.									
*During the Month of April CHPRC kicked off the FY2018 comprehensive EAC process (ZZCSMILE1117A, Kickoff FY18 Annual Comprehensive EAC), and is expected to finish mid-September (ZZCSMILE1117B, Submit Final FY18 Annual Comprehensive EAC).									
<b>Prepared by:</b>		<b>Date:</b>		<b>Approved by:</b>		<b>Date:</b>			