

# Monthly Performance Report

## January 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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P.O. Box 1600  
Richland, Washington 99352

**APPROVED**

*By Janis Aardal at 10:39 am, Feb 27, 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,  
DE-AC06-08RL14788  
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**January 2017**  
CHPRC-2017-01, Revision 0

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- Appendix C – Capital Asset Projects

## EXECUTIVE SUMMARY

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

- At the Plutonium Finishing Plant (PFP) Closure Project, when weather allowed, crews advanced demolition of the Plutonium Reclamation Facility to the second and third floors and were able to initiate the demolition of 242-Z (McCluskey Room) and complete the demolition of 242-ZA. Demolition crews were redeployed inside the main processing building during inclement weather. The project advanced removal of asbestos, ventilation duct and process vacuum piping.
- The Waste and Fuels Management Project Stabilization and Ventilation Project advanced efforts to mitigate a high dose field in the canyon, including mocking-up and training on the task.
- Workers at 100K are preparing to receive the Sludge Storage Transfer Container which they will use at the Annex for testing purposes.
- The 324 Building Remediation Project began fabrication of manipulators for use in the mock-up facility and in 324 Building. Completed fabrication of test floor saw at the Maintenance and Storage Facility, and began construction of a test pad on which they will test the mock-up floor saw.
- Workers at the 618-10 Burial Ground completed project startup readiness activities and mockup activities for retrieval of the steel Vertical Pipe Units (VPU). PermaFix currently has a backlog, therefore 120 drums were shipped from 618-10 to Tennessee.



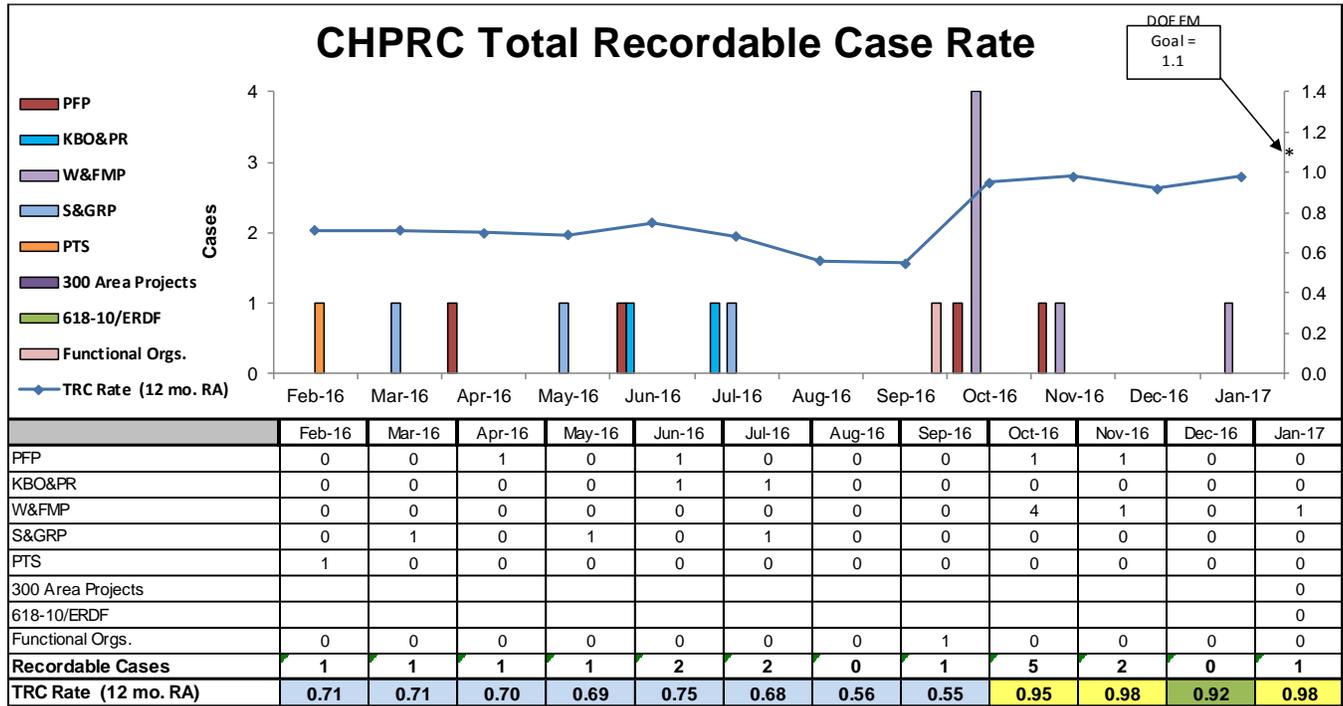
***Workers remove Plutonium Reclamation Facility (PRF) glove box prior to demolition beginning.***

- The President’s Zero Accident Council (PZAC) meeting was not held in January. The PZAC was canceled despite multiple attempts to schedule it because adverse weather resulted in Hanford site closures and work delays.
- Five “*Thinking Target Zero*” (TTZ) bulletins were published to convey important occupational, safety, health, and environmental messages:
  - VPP Onsite Review.
  - Frigid Temperatures.
  - Winter Driving Basics.
  - Hanford Inclement Weather Process.
  - How Green is Your Ice Melt?
- *Weekly Safety Tailgate* briefing packages communicated relevant topics and safety information to the workforce:
  - Seven Lessons Learned: MSHA – miner falls from a portable ladder; Carhartt issues voluntary recall for FR Sweatshirts; Argonne National Laboratory -- Pre-job inspections of electrical equipment can prevent incidents; Owner Dies After Being Crushed By Ecology Block Wall; Mechanic dies from being crushed under electrical cabinet; Fluor Federal Services Paducah Deactivation Project – Grating Failure Near-Miss; OSHA: Overextended boom caused truck to tip over on bridge
  - Weekly Ethics Moments.
  - Refocus after the holiday.
  - Vehicle Safety – warming up vehicles.
  - Medications at work.
  - Dosimetry reminders.
  - Reporting injuries.
  - Working safely with electricity.
  - Controlled Work Area procedure.
  - Procedure Changes.
  - Distractions.
  - New scaffold tags.
  - Endorsed scaffolding procedure.
  - Winter hazard evaluations.
  - Security notice regarding Fitness Trackers.
- The *Kudos Corner* recognized individuals and teams who made a significant contribution to safety at work, home or play:
  - Kudos to workers from the 618-10 Project for giving back to our community. With the unexpected site closure, 47 pizzas and desserts purchased for their employee party were generously donated and personally delivered to the Union Gospel Mission in Pasco.
  - Two S&GRP workers who did exceptional work in pointing out various items needed on the project to overcome access issues and equipment protection. Those items included a shed to protect an air compressor and a weather proof enclosure to keep instruments dry
  - Kudos to the Teamsters who supported PFP during the recent winter weather by keeping the numerous walkways and roads clear and by removing snow from roofs of trailers as it melted and started to slough off.
  - Kudos to the VPP Champions and points of contact for supporting the DOE-HQ Star recertification review.

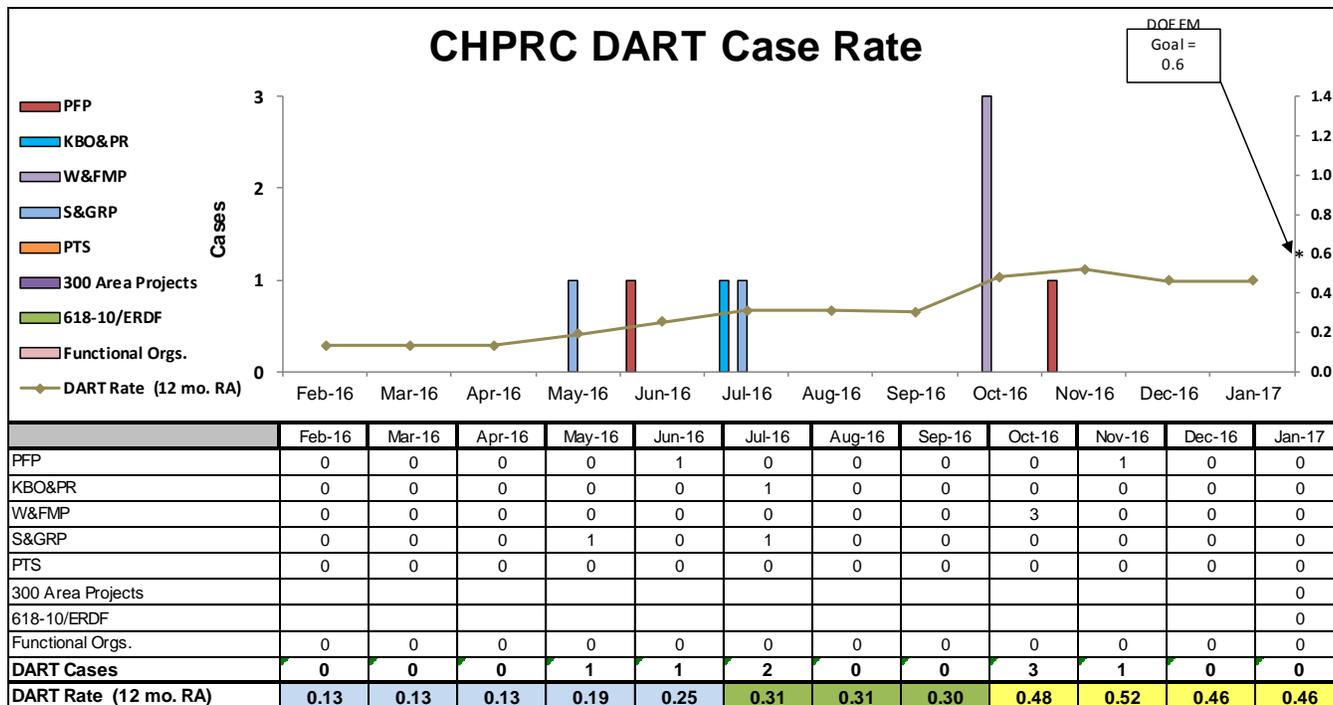
- o Kudos to Carl Marsh, Business Services, for looking out for his peers. Recently, Carl caught an employee who had slipped on ice and walked her to her car to ensure her safety. Thanks Carl for making a difference!

## TARGET ZERO PERFORMANCE

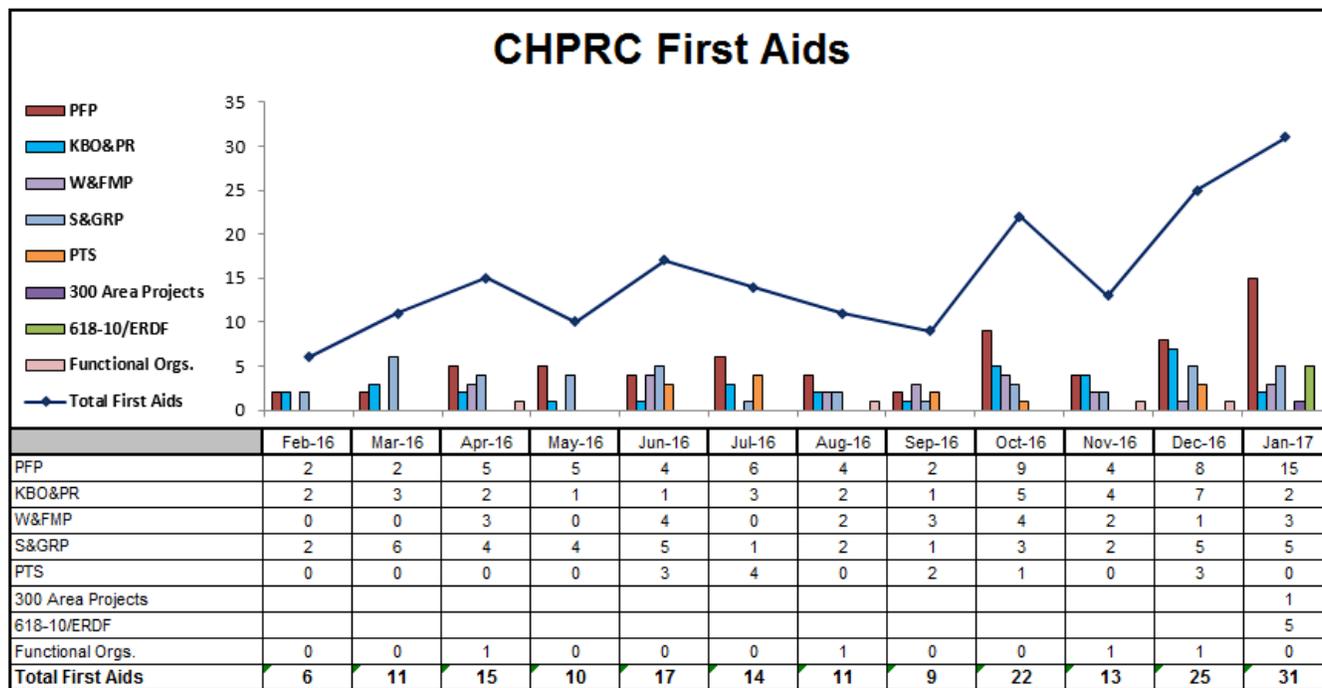
CHPRC continued focusing on integrating and implementing safety programs in all program and project areas.



Total Recordable Injury Case (TRC) Rate: The 12-month rolling average TRC rate of 0.98 is based on a total of 17 Recordable injuries. There was one Recordable case for January.



Days Away, Restricted or Transferred (DART) Workdays Case Rate: The 12-month rolling average DART rate of 0.46 is based upon a total of eight Days Away cases. There were no DART cases in January.



First Aid Case Summary: CHPRC reported 31 first aid cases in January. The contributors were twenty-one sprains/strains/pains and ten abrasions/bruises/contusions.

## 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 continued to cause negative schedule impacts to programmatic and performance measure due dates and increased costs.

### Corrective Action:

- Evaluate potential work arounds to mitigate impacts.
- Submit notice to DOE-RL for excusable delays related to unusually severe weather conditions.
- Assess current and future impacts of these disruptions to schedule and cost and submit REA to RL.

### Status:

- Continued severe winter weather has limited ability to recover delays.
- Submitted REA to RL on 1/24/16 (CHPRC-1700206 – *Request for Excusable Delay Due to Unusually Severe Weather*)
- 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 TRUM or MLLW - authorization needed to accelerate FY18 scope in order to complete PM.

### Status:

- CHPRC is working with FPD's and RL CO to facilitate issuing required acceleration authorization and Notices to Proceed.

### Issue:

Significant Contract Change Management is ongoing and will be required to be resolved to retain PRC alignment for FY2017/FY2018

- Backlog of undefinitized Change Proposals (CP) - ~31 totaling \$300M in value (RCCC scope, STP Acceleration, WA-1 Characterization, and other Change Orders).
- Effort is requiring significant RL and CHPRC resources. CHPRC is being challenged to keep up with RL CP requests due to finite number of SMEs and Estimators.
- CP definitization is required to reach agreement on firm FY2017/2018 performance expectations.

**Corrective Action:**

- Work with the RL reach agreement on PRC FY2017/2018 alignment and support RL evaluation and determination of the disposition of undefinitized CHPRC Change Proposals

**Status:**

- Four additional CPs were submitted to RL in January, 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 has 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 Projects ability to perform other activities as planned due to unavailability of staff assumed to be released by PFP.

**Corrective Action:**

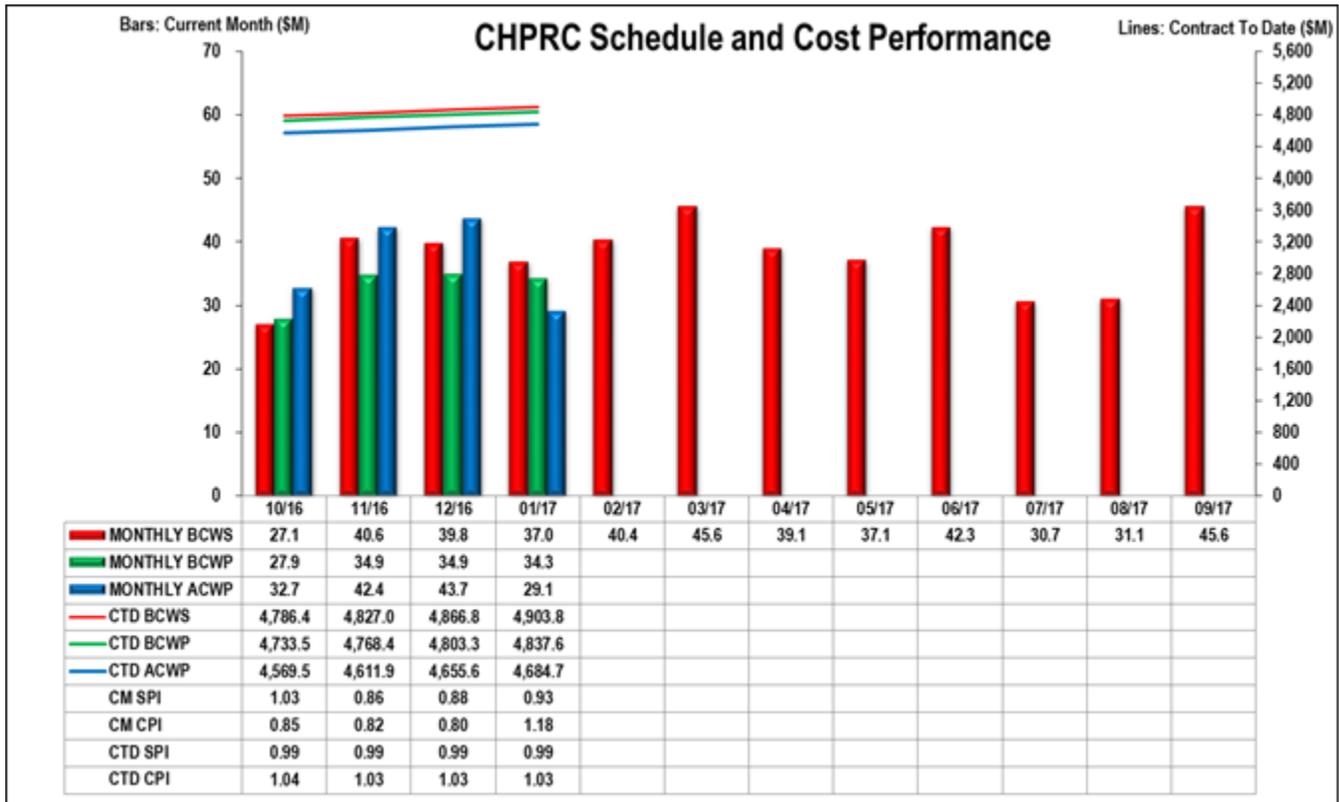
- Update staffing analysis to evaluate options to support work priorities and workforce restructuring.
- Hire short-term craft personnel to support PFP and other project needs.

**Status:**

- Updated staffing analysis addressing the delay in the PFP planned roll off and other project staffing needs has been addressed.
- Due to PFP's continued need for staff beyond the initial roll plan, RL has been notified of need to delay implementation in proposed WFR plan.
- Short-term craft personnel continue to be hired to support PFP as well as other project needs prior to PFP roll off.

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 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 | 2.0            | 2.7         | 7.2         | 0.7              | (4.4)       | 977.9            | 922.8          | 978.9          | (55.1)          | (56.1)       | 980.3          | 1,052.6        | (72.3)       |
| RL-0012 - SNF Stabilization & Disposition   | 6.2            | 7.3         | 4.2         | 1.1              | 3.1         | 646.7            | 650.5          | 619.9          | 3.8             | 30.7         | 740.2          | 712.8          | 27.4         |
| RL-0013 - Solid Waste Stab & Disposition    | 7.0            | 6.3         | 4.5         | (0.7)            | 1.8         | 1120.0           | 1120.4         | 1048.7         | 0.4             | 71.7         | 1,341.8        | 1,290.1        | 51.7         |
| RL-0030 - Soil & Water Rem-Grndwtr/Vadose   | 11.0           | 7.9         | 6.1         | (3.1)            | 1.8         | 1323.5           | 1306.4         | 1272.7         | (17.1)          | 33.7         | 1,566.6        | 1,494.4        | 72.2         |
| RL-0040 - Nuc Fac D&D - Remainder           | 1.2            | 1.0         | 1.4         | (0.2)            | (0.4)       | 431.1            | 426.7          | 396.3          | (4.4)           | 30.4         | 473.9          | 445.6          | 28.3         |
| RL-0041 - Nuc Fac D&D - RC Closure Project  | 9.4            | 8.9         | 5.7         | (0.5)            | 3.3         | 381.9            | 388.1          | 349.7          | 6.2             | 38.4         | 536.5          | 486.6          | 49.9         |
| RL-0042 - Nuc Fac D&D - FFTF Project        | 0.2            | 0.1         | 0.1         | (0.0)            | 0.1         | 22.8             | 22.8           | 18.6           | (0.0)           | 4.2          | 26.5           | 23.4           | 3.0          |
| <b>Total</b>                                | <b>37.0</b>    | <b>34.3</b> | <b>29.2</b> | <b>(2.7)</b>     | <b>5.2</b>  | <b>4,903.8</b>   | <b>4,837.6</b> | <b>4,684.8</b> | <b>(66.2)</b>   | <b>152.9</b> | <b>5,665.8</b> | <b>5,505.6</b> | <b>160.1</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 contract scope within budget and is currently projecting a Variance at Completion of \$160.1 million with \$68.8 million of Management Reserve (MR) for a total positive variance of \$228.9 million. For January, the project was 7.2 percent behind schedule and 15.0 percent under planned cost. Contract to Date (CTD), the project was 1.4 percent behind schedule and 3.2 percent under planned cost.

The current month negative schedule variance is primarily due to PBS RL-0030 delay of the 100-NR-2 Barrier maintenance and expansion activities, caused by funding limitations and pending resolution of cultural clearance items. Also contributing is the preparation of the 200-OA-1 RI/FS work plan being deferred to FY2018 to align with the priority list and available funding. This is partially offset by PBS RL-0012 accelerating the field schedule by working overtime in order to achieve sludge retrievals by 2018 and work has started earlier than planned on Procurement Set 9 – fabrication of the fill tube and float assemblies for STSCs 14 through 24.

The current month positive cost variance has two primary contributing factors. PBS RL-0012 initial award for fabrication of STSC vessels 14-24 was lower than planned to date. Equipment installation is being performed at a lower cost than planned. Efficiencies have been achieved by centralizing program management responsibilities. Labor also continues to underrun in the ECRTS Testing account. Also contributing to the current month positive cost variance is PBS RL-0041 unusual abundance of site closures and delays due to adverse weather conditions, resulting in less resources charging as usual. Completing Confirmatory Sampling No Action (CSNA) waste sites early and under cost. Low waste volumes at ERDF have created efficiencies in labor and materials. The variance is partially offset 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 Min Safe, Maintenance, and D&D project management resources. Also, the unusually cold/snowy winter resulting in work delays or cancellations, have delayed the progress on discrete D&D work scope (apportioned) and increased costs in fleet maintenance and consumable materials such as PPE. 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  | 104.9             | 111.3             | (6.5)         |
| RL-0012                                            | Spent Nuclear Fuel Stabilization and Disposition | 36.6              | 32.1              | 4.5           |
| RL-0012                                            | 15-D-401 Sludge Retrieval Project                | 57.8              | 49.1              | 8.7           |
| RL-0013                                            | Waste and Fuels Management Project               | 103.3             | 92.1              | 11.2          |
| RL-0030                                            | Soil, Groundwater and Vadose Zone Remediation    | 130.7             | 105.2             | 25.5          |
| RL-0040                                            | Nuclear Facility D&D, Remainder of Hanford       | 36.1              | 21.5              | 14.6          |
| RL-0041                                            | Nuclear Facility D&D, River Corridor             | 139.4             | 102.4             | 37.0          |
| RL-0042                                            | Fast Flux Test Facility Closure                  | 3.9               | 2.1               | 1.7           |
| <b>Total Estimate at Complete</b>                  |                                                  | <b>612.6</b>      | <b>515.9</b>      | <b>96.7</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               | 5.6               | (5.6)         |
| RL-0030                                            | Soil, Groundwater and Vadose Zone Remediation    | 0.0               | 19.5              | (19.5)        |
| RL-0040                                            | Nuclear Facility D&D, Remainder of Hanford       | 0.0               | 11.1              | (11.1)        |
| RL-0041                                            | Nuclear Facility D&D, River Corridor             | 0.0               | 22.8              | (22.8)        |
| RL-0042                                            | Fast Flux Test Facility Closure                  | 0.0               | 0.0               | 0.0           |
| <b>Total Incremental Work Scope</b>                |                                                  | <b>0.0</b>        | <b>59.0</b>       | <b>(59.0)</b> |
| <b>Total Fiscal Year Spend Forecast</b>            |                                                  |                   |                   |               |
| RL-0011                                            | Nuclear Materials Stabilization and Disposition  | 104.9             | 111.3             | (6.5)         |
| RL-0012                                            | Spent Nuclear Fuel Stabilization and Disposition | 36.6              | 32.1              | 4.5           |
| RL-0012                                            | 15-D-401 Sludge Retrieval Project                | 57.8              | 49.2              | 8.7           |
| RL-0013                                            | Waste and Fuels Management Project               | 103.3             | 97.6              | 5.6           |
| RL-0030                                            | Soil, Groundwater and Vadose Zone Remediation    | 130.7             | 124.7             | 6.0           |
| RL-0040                                            | Nuclear Facility D&D, Remainder of Hanford       | 36.1              | 32.6              | 3.5           |
| RL-0041                                            | Nuclear Facility D&D, River Corridor             | 139.4             | 125.2             | 14.2          |
| RL-0042                                            | Fast Flux Test Facility Closure                  | 3.9               | 2.1               | 1.7           |
| <b>Total</b>                                       |                                                  | <b>612.6</b>      | <b>574.9</b>      | <b>37.7</b>   |

#### Funds/Variance Analysis

FY2017 expected funding did not change during the month of January, and remains at \$612.6 million. The Spending Forecast decreased by \$26.1 million from December, primarily in the incremental scope pending change management incorporating anticipated reductions and scope expected to move into FY2018.

## BASELINE CHANGE REQUESTS

In January 2017, CHPRC approved and implemented 10 Baseline Change Requests (BCRs) into the Performance Measurement Baseline (PMB). Each change request is identified in the table below:

| Change Request #  | Title                                                                                                            | PBS                                                | Summary of Change                                                                                                                                                                                                                 |
|-------------------|------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BCR-012C-17-004R0 | <i>RL-012 Schedule Health Updates</i>                                                                            | RL-0012                                            | This BCR incorporated schedule health adjustments to the RL-0012 schedule based on DOE EVM schedule health checks and to align the DSA update to match verbiage in the contract. This BCR does not change the PMB value.          |
| BCR-013-17-002R0  | <i>RL-0013 Implementation of Schedule Health Modifications to IMS</i>                                            | RL-0013                                            | This BCR incorporated schedule health adjustments to the RL-0013 schedule based on Deltek Acumen metrics and DOE EVM schedule health checks. This BCR does not change the PMB value.                                              |
| BCR-040-17-001R0  | <i>Incorporate CO #309, Additional Assessment of PUREX Tunnels 1 &amp; 2</i>                                     | RL-0040                                            | This BCR incorporated scope and NTE increase for CO #309, Develop and submit to RL Data Quality Objectives for Assessing Structural Integrity for PUREX Tunnels 1 and 2. This BCR increased the PMB value by \$75K.               |
| BCR-040-17-002R0  | <i>Incorporate CO #311, Increase for Perform Reduction and Oxidation (202S) Roof Replacement</i>                 | RL-0040                                            | This BCR incorporated scope and NTE increase for CO #311, for on-going work for the replacement of the REDOX roof replacement. This BCR increased the PMB value by \$1,300K.                                                      |
| BCR-040-17-003R0  | <i>Convert Planning Package to Work Packages for B Plant Ancillary Buildings</i>                                 | RL-0040                                            | This BCR converted planning package for Increased Planning Capability into detailed scope for developing Cold and Dark Work Packages for the B Plant Ancillary Buildings. This BCR does not change the PMB value.                 |
| BCR-040-17-004R0  | <i>Incorporate CO #311, Increase for Initiate Canyon &amp; Central Plateau Risk Reduction Documents</i>          | RL-0040                                            | This BCR incorporated scope and NTE increase for CO #311, for on-going work for the regulatory documents for REDOX, B-Plant, PUREX Actions Memorandums & Canyon RAWPs. This BCR increased the PMB value by \$200K.                |
| BCR-040-17-006R0  | <i>Add TPA M-016-250B and 250C - 3 Year Rolling Prioritized Schedule to Implement Waste Site Removal Actions</i> | RL-0040                                            | This BCR added TPA Milestone M-016-250B and Milestone M-016-250C to the Baseline Schedule under WBS 040.03.01.01.01 – Min Safe Oversight and Services. This BCR does not change the PMB value.                                    |
| BCR-041-17-006R0  | <i>Incorporate CO #307 Scope and NTE Increase for 100-K Waste Sites</i>                                          | RL-0041                                            | This BCR incorporated scope and NTE increase associated with DOE-RL Change Order #307, 100K Area Waste Site Quantity Increase as authorized by Contract Modification #546 and #565. This BCR increased the PMB value by \$4,000K. |
| BCRA-PRC-17-014R0 | <i>HPIC Updates January 2017</i>                                                                                 | RL-0011, RL-0012, RL-0013, RL-0040, RL-0041, 000's | This BCR incorporated January FY2017 Hanford Programs Integrated Control Module (HPIC) updates. This BCR does not change the PMB value.                                                                                           |

The Allocated (Distributed) Budget increased by \$5,575K.

**Undistributed Budget Activity**

| BCR Number       | Title                                                | PBS                             | Fiscal Year | UB        |
|------------------|------------------------------------------------------|---------------------------------|-------------|-----------|
| BCR-PRC-17-013R0 | <i>Undistributed Budget Adjustments January 2017</i> | RL-0030,<br>RL-0040,<br>RL-0041 | 2017-2018   | \$-5,586K |

The Undistributed Budget decreased by \$5,586K.

**Management Reserve Activity**

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

Overall, there was no change in Management Reserve (MR) during January.

**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 Fee during January.

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):

*January 2017 Summary of Changes*

|                               | FY 2009-2013     | FY2014         | FY2015         | FY2016         | FY2017         | FY2018         | FYs 2014-2018    | Contract Period Total | Total PMB        |
|-------------------------------|------------------|----------------|----------------|----------------|----------------|----------------|------------------|-----------------------|------------------|
| <b>December 2016 Estimate</b> |                  |                |                |                |                |                |                  |                       |                  |
| PMB                           | 3,391,477        | 391,653        | 471,323        | 504,826        | 451,014        | 455,496        | 2,274,311        | 5,665,788             | 5,665,788        |
| MR                            | 0                | 0              | 0              | 0              | 36,583         | 32,237         | 68,821           | 68,821                | 68,821           |
| Fee                           | 155,504          | 14,325         | 14,501         | 27,804         | 10,461         | 18,636         | 85,726           | 241,230               | 241,230          |
| <b>Total</b>                  | <b>3,546,981</b> | <b>405,978</b> | <b>485,824</b> | <b>532,630</b> | <b>498,058</b> | <b>506,369</b> | <b>2,428,858</b> | <b>5,975,839</b>      | <b>5,975,839</b> |
| <b>January 2017 Change</b>    |                  |                |                |                |                |                |                  |                       |                  |
| <b>PMB</b>                    |                  |                |                |                |                |                |                  |                       |                  |
| Change to PMB                 | 0                | 0              | 0              | 0              | 5,574          | -5,585         | -11              | -11                   | -11              |
| <b>MR</b>                     |                  |                |                |                |                |                |                  |                       |                  |
| Change to MR                  | 0                | 0              | 0              | 0              | 0              | 0              | 0                | 0                     | 0                |
| <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>5,574</b>   | <b>-5,585</b>  | <b>-11</b>       | <b>-11</b>            | <b>-11</b>       |
| <b>January 2017 Estimate</b>  |                  |                |                |                |                |                |                  |                       |                  |
| PMB                           | 3,391,477        | 391,653        | 471,323        | 504,826        | 456,588        | 449,911        | 2,274,300        | 5,665,777             | 5,665,777        |
| MR                            | 0                | 0              | 0              | 0              | 36,583         | 32,237         | 68,821           | 68,821                | 68,821           |
| Fee                           | 155,504          | 14,325         | 14,501         | 27,804         | 10,461         | 18,636         | 85,726           | 241,230               | 241,230          |
| <b>Total</b>                  | <b>3,546,981</b> | <b>405,978</b> | <b>485,824</b> | <b>532,630</b> | <b>503,632</b> | <b>500,784</b> | <b>2,428,847</b> | <b>5,975,828</b>      | <b>5,975,828</b> |

*Changes to/Utilization of Management Reserve in January 2017*

|                                            | FY2009-2013 | FY2014   | FY2015   | FY2016   | FY2017        | FY2018        | FY2014-2018   | Total         |
|--------------------------------------------|-------------|----------|----------|----------|---------------|---------------|---------------|---------------|
| <b>December 2016 MR Totals</b>             |             |          |          |          |               |               |               |               |
| RL-0011                                    | 0           | 0        | 0        | 0        | 6,811         | 0             | 6,811         | 6,811         |
| RL-0012                                    | 0           | 0        | 0        | 0        | 6,567         | 3,262         | 9,829         | 9,829         |
| RL-0013                                    | 0           | 0        | 0        | 0        | 4,249         | 7,208         | 11,456        | 11,456        |
| RL-0030                                    | 0           | 0        | 0        | 0        | 8,883         | 10,380        | 19,263        | 19,263        |
| RL-0040                                    | 0           | 0        | 0        | 0        | 1,941         | 439           | 2,380         | 2,380         |
| 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>36,584</b> | <b>32,237</b> | <b>68,821</b> | <b>68,821</b> |
| <b>January 2017 MR Changes/Utilization</b> |             |          |          |          |               |               |               |               |
| RL-0011                                    | 0           | 0        | 0        | 0        | 0             | 0             | 0             | 0             |
| RL-0012                                    | 0           | 0        | 0        | 0        | 0             | 0             | 0             | 0             |
| 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>0</b>      | <b>0</b>      | <b>0</b>      | <b>0</b>      |
| <b>January 2017 MR Totals</b>              |             |          |          |          |               |               |               |               |
| RL-0011                                    | 0           | 0        | 0        | 0        | 6,811         | 0             | 6,811         | 6,811         |
| RL-0012                                    | 0           | 0        | 0        | 0        | 6,567         | 3,262         | 9,829         | 9,829         |
| RL-0013                                    | 0           | 0        | 0        | 0        | 4,249         | 7,208         | 11,456        | 11,456        |
| RL-0030                                    | 0           | 0        | 0        | 0        | 8,883         | 10,380        | 19,263        | 19,263        |
| RL-0040                                    | 0           | 0        | 0        | 0        | 1,941         | 439           | 2,380         | 2,380         |
| 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>36,584</b> | <b>32,237</b> | <b>68,821</b> | <b>68,821</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 - 1/31/2017                 |                 |         |        | Planned Subcontracting:                                                                      | \$2,720,084,369 |
| Reporting Category                    |                 |         |        | Contract-to-date awards:                                                                     | \$2,427,841,298 |
|                                       |                 |         |        | Bal remaining to award:                                                                      | \$292,243,071   |
|                                       | \$ Value        | %       | Goal % | Goal award\$                                                                                 | Bal to Goal     |
| SB                                    | \$1,346,815,494 | 54.31%  | 49.3%  | \$1,341,001,594                                                                              | -\$5,813,900    |
| SDB                                   | \$235,006,272   | 9.48%   | 8.2%   | \$223,046,918                                                                                | -\$11,959,354   |
| SWOB                                  | \$262,636,138   | 10.59%  | 7.5%   | \$204,006,328                                                                                | -\$58,629,811   |
| HUB                                   | \$56,137,233    | 2.26%   | 2.2%   | \$59,841,856                                                                                 | \$3,704,623     |
| VOSB                                  | \$188,612,709   | 7.61%   | 3.5%   | \$95,202,953                                                                                 | -\$93,409,756   |
| SDVO                                  | \$109,284,482   | 4.41%   | 1.3%   | \$35,361,097                                                                                 | -\$73,923,385   |
| NAB                                   | \$50,839,903    | 2.05%   | N/A    | PRC clause H.20 small business requirement<br>≥ 17% of CHPRC Contract Price performed by SB. |                 |
| Large                                 | \$643,286,579   | 25.94%  | N/A    |                                                                                              |                 |
| GOVT                                  | \$2,735,553     | 0.11%   | N/A    |                                                                                              |                 |
| GOVT CONT                             | \$482,866,522   | 19.47%  | N/A    |                                                                                              |                 |
| EDUCATION                             | \$109,239       | 0.00%   | N/A    | CHPRC Contract Value:                                                                        | \$5,732,255,464 |
| NONPROFIT_                            | \$3,778,250     | 0.15%   | N/A    | 17% rqmt:                                                                                    | \$974,483,429   |
| FOREIGN                               | \$424,861       | 0.02%   | N/A    | SB actual:                                                                                   | \$1,346,815,494 |
| Total                                 | \$2,480,016,500 | 100.00% | N/A    | Bal to rqmt                                                                                  | -\$372,332,065  |

### 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,<br>C.2.3 | PBS-11, Plutonium Finishing Plant Closure Project<br><br>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  
PFP Closure Project

January 2017  
CHPRC-2017-01, 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 Plutonium Reclamation Facility (PRF) are complete. Initiation of demolition on the PRF started early November 2016. Initiation of demolition on the 242-Z facility started early January 2017.

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

Significant accomplishments in January included:

- Buildings 242-Z and 242-ZA confirmed ready for demolition.
- Initiated demolition of 242-Z and completed demolition of building 242-ZA.
- Continued preparations for removal of HA-7A, HC-7C, and HC-18M gloveboxes from 234-5Z.
- Core drilling holes in 234-5Z pipe trench covers preparatory to grouting is 100% 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.
- Continued cold and dark activities to support disconnect of the 13.8 Power Supply to PFP.
- Abated 2,304 feet of asbestos.
- Removed or dispositioned in place 23 feet of process vacuum piping.
- Shipped 44m<sup>3</sup> TRU Waste.
- Shipped 129m<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             | 2,304                | 29,956                  |
| Process Vacuum Piping Dispositioned                              | 23                   | 5,863 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                                         | 2                    | 50 structures           |
| Buildings Demolished or Removed                                  | 1                    | 48 structures           |
| Non-radioactive Waste Shipped                                    | -                    | 76 m <sup>3</sup>       |
| Transuranic /Transuranic Mixed (TRU/TRU-M) Shipped               | 44 m <sup>3</sup>    | 2,334 m <sup>3</sup>    |
| LLW/MLLW Shipped                                                 | 129 m <sup>3</sup>   | 8,164 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                    | 01/26/17 | 90%    |
|                   |                                                                                            |                                                                                                                                                                                                                                                   | 4. Issue report documenting thorough inspection of 291-Z                     | 01/31/17 | 0%     |
| 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 | 0%     |
|                   |                                                                                            |                                                                                                                                                                                                                                                   | 4. Review 291Z demolition work package against environmental requirements    | 03/30/17 | 0%     |
|                   |                                                                                            |                                                                                                                                                                                                                                                   | 5. Create ready for demolition checklist for 234-5Z                          | 03/30/17 | 0%     |
|                   |                                                                                            |                                                                                                                                                                                                                                                   | 6. Review 234-5Z demolition work package against environmental requirements  | 04/27/17 | 0%     |

## TARGET ZERO PERFORMANCE

|                                      | Current Month | Rolling 12 Month | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------|---------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Days Away, Restricted or Transferred | 0             | 2                | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Total Recordable Injuries            | 0             | 2                | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| First Aid Cases                      | 15            | 66               | <ul style="list-style-type: none"> <li>• 1/3/2017 - Employee slipped and fell on patch of ice/snow. Had gloves on hands, no cuts to hands, contusion on right hand. Cold pack and non-prescription medication given. Restriction to protect wound from contamination. Released to return to work. (24287)</li> <li>• 1/4/2017 - Employee stepped on a snow covered yellow jacket (an electrical cable protector made out of plastic), fell forward and landed on left shoulder and right hand and shin. Employee was taken to HPMC examined and diagnosed as having acute pain in right hand and fingers. No treatment was given and employee was released to return to work without restriction. (24292)</li> <li>• 1/11/2017 - Employee slipped on ice, fell on right side striking right elbow, wrist, and shoulder. Employee was taken to HPMC, examined and diagnosed as having a contusion to right elbow. A cold pack was administered and x-ray was negative for fractures. Employee was released to return to work with a restriction to limit use of right hand, avoid overhead activity, no lifting or carrying over 5 pounds. (24307)</li> <li>• 1/10/2017 - Employee slipped and fell in the snow. Employee was taken to HPMC, examined and diagnosed as having a lower back lumbar strain/sprain. No treatment was given and employee was released to return to work without restrictions. (24297)</li> <li>• 1/12/2017 - Employee slipped and fell in the snow. Employee was taken to HPMC, examined and diagnosed as having a lower back lumbar strain/sprain. No treatment was given and employee was released to return to work without restrictions. (24309)</li> <li>• 1/8/2017 - Employee slipped on a patch of ice covered gravel, falling to knees and scraping right knee. Employee jarred back and has right wrist pain. First Aid on the Hanford Site was closed due to weather conditions. Employee was taken to HPMC on 1-10-17, examined and diagnosed as having joint pain in right wrist. No treatment was given and employee was released to return to work without restriction. (24308)</li> <li>• 1/23/2017 - Employee fell in the parking lot, injuring right elbow and back. Employee proceeded to HPMC, with supervisor accompanying, was examined and released with no restriction. (24318)</li> <li>• 1/23/2017 - Employee slipped on accumulated ice, fell to the ground landing on left side and shoulder, and suffered minor cuts to right hand. The employee was taken to HPMC for evaluation and treatment and returned to work with a temporary radiological restriction due to cuts on hand. (24320)</li> </ul> |

|             | Current Month | Rolling 12 Month | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------|---------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             |               |                  | <ul style="list-style-type: none"> <li>1/24/2017 - Employee slipped on a patch of ice, falling on right elbow and shoulder and then onto back. Employee was taken to HPMC, examined and diagnosed as having right neck and rotator cuff strain/sprain. No treatment was given and employee was released to return to work without restriction. (24326)</li> <li>1/23/2017 - Employee slipped on accumulated ice, falling to the ground landing in the pushup position. The employee suffered minor bruising to right forearm and experienced minor tenderness to both palms. Employee was taken to HPMC for evaluation and treatment and returned to work without restrictions. (24328)</li> <li>1/23/2017 - Employee slipped on accumulated ice, fell to the ground landing on left wrist and buttocks, and felt a "pop" in lower back region. Employee was taken to HPMC for evaluation and treatment and returned to work with a temporary restriction and instruction allowing the use of a brace along with limited use of left hand. (24321)</li> <li>1/23/2017 - Employee was conducting numerous rad surveys on PAPRs. Surveys require the employee to use one hand to move the PAPR around and the other hand to operate the survey wand. Employee felt pain in left shoulder/upper arm. Employee was taken to HPMC, examined and diagnosed as having a strain/sprain of the left shoulder and upper arm. No treatment was given and employee was released to return to work with a restriction of no reaching or lifting with left arm. (24324)</li> <li>1/29/2017 - Employee stepped on a snow covered hole injuring left foot and ankle. HPMC was closed (Sunday); employee went to a private medical provider and was not allowed to return to work because of injuries. Employee reported to HPMC on 2-6-17, examined and diagnosed as having pain in joint of left ankle/foot. No treatment was given. Employee was released to return to work with the following restrictions: Limited standing and walking as tolerated. No walking on uneven terrain, no climbing on ladders, crawling, or squatting. Must use walking boot. (24333)</li> <li>1/31/2017 - Employee slipped and fell on buttocks injuring low back. Employee was examined and returned to work with no restriction. (24335)</li> <li>1/31/2017 - Employee slipped on snow and fell to the ground. Employee was taken to HPMC, examined and was found to have no injuries. No treatment was given and employee was released to return to work with no restrictions. (24337)</li> </ul> |
| Near Misses | 0             | 0                | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

## KEY ACCOMPLISHMENTS

### RL-0011 Accomplishments

#### 234-5Z

- Abated 2,304 feet of asbestos.
- Removed or dispositioned in place 23 feet of process vacuum piping.
- Completed drilling holes in 234-5Z pipe trench covers preparatory to grouting.
- 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, HC-7C, and HC-18M gloveboxes from 234-5Z.

### PFP Waste Operations

- Shipped 44m<sup>3</sup> TRU/TRU-M waste.
- Shipped 129m<sup>3</sup> LLW/MLLW.

#### 242-Z

- Buildings 242-Z and 242-ZA confirmed ready for demolition.

### Demolition Activities

- Continued demolition activities on 236-Z Facility.
- Initiated demolition of 242-Z and completed demolition of building 242-ZA.

## MAJOR ISSUES

### Issue:

On October 24, 2016, a stop work was issued at PFP on the use of Mine Safety Appliances (MSA), OptimAir TL powered air purifying respirators (PAPRs). The stop work was the result of the discovery of paint inside the blower housing (past the filter). Upon further investigation, it was discovered that with the MSA OptimAir TL PAPR in configuration of using the chemical-OV cartridges in conjunction with the “bumper guard,” there was no seal between the filter and the blower, allowing air to bypass the filter.

### Corrective Action:

- All in service MSA OptimAir TL PAPRs at PFP were removed from service.
- An intrusive survey of the internals of several PAPRs were conducted.
- New PAPRs were put into service.
- Initiated an investigation of the affected time period in which this configuration was utilized.

### Status:

- Collecting air sample data for the time period in which this configuration was worn.
- PFP continues to collect air sample data associated with the use of the bumper guard in conjunction with the Chemical-OV cartridge.
- Completed list of employee’s that were issued chemical-OV cartridges during the time period in which bumper guards were used at PFP.
- Continue to collect survey/air sample data from the effected time period.

## 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><br>No major changes to the monthly spotlight chart in the month of <b>January</b> .                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                   |                                    |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         |           |         |   |                                                                                        |          |          |     |                                                                  |          |         |         |
| <b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                   |                                    |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         |           |         |   |                                                                                        |          |          |     |                                                                  |          |         |         |
| PFP-096:<br>PPE availability or failed respirator equipment impacts planned D&D work                                                                                                                                                                                                                                                                                                                                                                                               | Due to old generation PPE, respirator equipment fails planned D&D work and impacts project with cost and schedule delays.<br><b>Risk Handling Strategy:</b> Accept<br><br><b>Probability:</b> Likely (75% to 90%)<br><b>Worst Case Impacts:</b> \$1,000K, 24 days | <span style="color: red;">●</span> |  | <b>Risk Event:</b> The project is currently experiencing respirator equipment failing due to old generation respirators.                                                                                                                                                                                                                                                                                                                                      |                         |           |         |   |                                                                                        |          |          |     |                                                                  |          |         |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                   |                                    |                                                                                   | <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>Procure 300 PAPR units for spares to ensure failed equipment does not result in delays</td> <td>04/15/16</td> <td>Complete</td> <td>100</td> </tr> <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> | Risk Recovery action(s) | Risk Date | FC Date | % | Procure 300 PAPR units for spares to ensure failed equipment does not result in delays | 04/15/16 | Complete | 100 | Procure additional PPE with new generation respirator equipment. | 04/15/16 | Ongoing | Ongoing |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                   |                                    |                                                                                   | Risk Recovery action(s)                                                                                                                                                                                                                                                                                                                                                                                                                                       | Risk Date               | FC Date   | %       |   |                                                                                        |          |          |     |                                                                  |          |         |         |
| Procure 300 PAPR units for spares to ensure failed equipment does not result in delays                                                                                                                                                                                                                                                                                                                                                                                             | 04/15/16                                                                                                                                                                                                                                                          | Complete                           | 100                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         |           |         |   |                                                                                        |          |          |     |                                                                  |          |         |         |
| Procure additional PPE with new generation respirator equipment.                                                                                                                                                                                                                                                                                                                                                                                                                   | 04/15/16                                                                                                                                                                                                                                                          | Ongoing                            | Ongoing                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         |           |         |   |                                                                                        |          |          |     |                                                                  |          |         |         |
| <b>Recovery Assessment:</b><br>No changes in the month of <b>January</b> .<br>This risk was designated to be realized based on several events related to failed PPE. Discussion will be held with CHPRC’s Change Control Coordinator concerning the usage of management reserve to procure additional PPE to avoid future field work impacts.<br>The mitigation strategies have been put in place, as a result, the risk strategy is to accept with no further mitigation actions. |                                                                                                                                                                                                                                                                   |                                    |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         |           |         |   |                                                                                        |          |          |     |                                                                  |          |         |         |

| Risk Title                                                                                                                                                                                                     | Unmitigated Risk Impacts                                                                                                                                                                                                                                                                                         | Assessment |       | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                         |           |         |                              |                                                                                                                      |          |          |    |                                                                                                                                                                                                                |          |          |    |                                                                                                                        |          |         |     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------|---------|------------------------------|----------------------------------------------------------------------------------------------------------------------|----------|----------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|----|------------------------------------------------------------------------------------------------------------------------|----------|---------|-----|
|                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                  | Month      | Trend |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |           |         |                              |                                                                                                                      |          |          |    |                                                                                                                                                                                                                |          |          |    |                                                                                                                        |          |         |     |
| <b>RL-0011/WBS-011.OA</b>                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                  |            |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |           |         |                              |                                                                                                                      |          |          |    |                                                                                                                                                                                                                |          |          |    |                                                                                                                        |          |         |     |
| PFP-092-02:<br>Final Facility Characterization Identifies Unexpected Hold-up                                                                                                                                   | Unexpected or late discovery of radiological (Pu) or chemical (Asbestos) holdup requiring added facility deactivation.<br><b>Risk Handling Strategy:</b> Control<br><br><b>Probability:</b> Medium (26% to 74%)<br><b>Worst Case Impacts:</b> \$300K, 16 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, an additional ~9,400 feet of asbestos was discovered taking the total of asbestos to be removed to 35,999 feet. With January 2017 progress, the PFP project has actually removed over 29,000 linear feet to date with additional asbestos still remaining to be removed.</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>03/02/17</td> <td>75</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>03/02/17</td> <td>75</td> </tr> <tr> <td>Work with DOE to utilize contingency for additional 9,300 feet of asbestos identified during walkdowns and inspections</td> <td>01/09/17</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Recovery Assessment:</b><br/>                     Based on completed inspections, this risk has been triggered by additional TSI identified that was not part of the original engineering estimate that was used to develop the RL-011 baseline. Mitigating action cited focuses 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.<br/>                     With respect to the emerging risk regarding characterization of remnant stubs and piping left for facility demolition, proposed Safeguards termination limits are in the process of final approval by RL. When approved, a majority of existing NDA data can be used for termination purposes, without need for added in-situ assays. Criticality Engineering is in the process of revising criticality incredibility requirements that enable recognition of the termination limits. Any added characterization of remnant piping is thereby reduced and only pursued when the total MAR in a given demolition zone (Crit Safety Value g-Pu) exceeds specified limits, which are not considered restrictive. This action also enables an opportunity to reduce the scope of remaining ongoing facility deactivation work. Given the potential impact to the 234-5Z demolition schedule, however, 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 | 03/02/17 | 75 | 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 | 03/02/17 | 75 | Work with DOE to utilize contingency for additional 9,300 feet of asbestos identified during walkdowns and inspections | 01/09/17 | Ongoing | N/A |
| 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                                                                                                                                                                                                                                                                                                         | 03/02/17   | 75    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |           |         |                              |                                                                                                                      |          |          |    |                                                                                                                                                                                                                |          |          |    |                                                                                                                        |          |         |     |
| 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                                                                                                                                                                                                                                                                                                         | 03/02/17   | 75    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |           |         |                              |                                                                                                                      |          |          |    |                                                                                                                                                                                                                |          |          |    |                                                                                                                        |          |         |     |
| Work with DOE to utilize contingency for additional 9,300 feet of asbestos identified during walkdowns and inspections                                                                                         | 01/09/17                                                                                                                                                                                                                                                                                                         | Ongoing    | N/A   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |           |         |                              |                                                                                                                      |          |          |    |                                                                                                                                                                                                                |          |          |    |                                                                                                                        |          |         |     |
| <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>January</b> .                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                  |            |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |           |         |                              |                                                                                                                      |          |          |    |                                                                                                                                                                                                                |          |          |    |                                                                                                                        |          |         |     |
| <b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)                                                                                                                      |                                                                                                                                                                                                                                                                                                                  |            |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |           |         |                              |                                                                                                                      |          |          |    |                                                                                                                                                                                                                |          |          |    |                                                                                                                        |          |         |     |
| PFP-DEMO-24:<br>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.<br><b>Risk Handling Strategy:</b> Accept<br><br><b>Probability:</b> Likely (75% to 90%)<br><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><br/>                     No major changes in the month of <b>January</b>.<br/>                     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 <b>January</b> .                                                                                                                                                |                                                                                                                                                                                                                                                                                                                  |            |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |           |         |                              |                                                                                                                      |          |          |    |                                                                                                                                                                                                                |          |          |    |                                                                                                                        |          |         |     |

## PROJECT BASELINE PERFORMANCE

### Current Month

(\$M)

| WBS 011/RL-0011<br>Nuclear Matl Stab &<br>Disp PFP | Budgeted Cost<br>of Work<br>Scheduled<br>(BCWS) | Budgeted Cost<br>of Work<br>Performed<br>(BCWP) | Actual Cost<br>of Work<br>Performed<br>(ACWP) | Schedule<br>Variance<br>(\$) | Schedule<br>Variance<br>(%) | Cost<br>Variance<br>(\$) | Cost<br>Variance<br>(%) |
|----------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-----------------------------------------------|------------------------------|-----------------------------|--------------------------|-------------------------|
| Total                                              | 2.0                                             | 2.7                                             | 7.2                                           | 0.7                          | 36.3%                       | (4.4)                    | -161.3%                 |

Numbers are rounded to the nearest \$0.1 million.

#### CM Schedule Variance: (+\$0.7M/+36.3%)

The current month positive schedule variance is 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. The positive variance is partially offset by the delay in the demobilization and installation of the cover cap following demolition. This work is 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: (-\$4.4M/-161.3%)

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 Min Safe, Maintenance, and decontamination and decommissioning (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. Also contributing to this month's variance is the delay of progress on discrete D&D work scope (apportioned) as a result of an unusually cold/snowy winter resulting in work delays or cancellations and inability to operate heavy equipment when temperatures dip below freezing. Fleet maintenance costs are higher than planned as a result of the cold weather impacts making it difficult to operate the heavy demolition equipment and causing need for unplanned repairs. In addition, consumable materials are costing more than planned due to additional personal protective equipment (PPE) requirements as a result of the unusual amount of snow and water accumulation in the demolition area. 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/<br>RL-0011<br>Nuclear Matl<br>Stab & Disp<br>PFP | Budgeted<br>Cost<br>of Work<br>Scheduled | Budgeted<br>Cost<br>of Work<br>Performed | Actual<br>Cost<br>of Work<br>Performed | Schedule<br>Variance<br>(\$) | Schedule<br>Variance<br>(%) | Cost<br>Variance<br>(\$) | Cost<br>Variance<br>(%) | Budget at<br>Completion<br>(BAC) | Estimate at<br>Completion<br>(EAC) | Variance at<br>Completion<br>(VAC) |
|-----------------------------------------------------------|------------------------------------------|------------------------------------------|----------------------------------------|------------------------------|-----------------------------|--------------------------|-------------------------|----------------------------------|------------------------------------|------------------------------------|
| Total                                                     | 977.9                                    | 922.8                                    | 978.9                                  | (55.1)                       | -5.6%                       | (56.1)                   | -6.1%                   | 980.3                            | 1,052.6                            | (72.3)                             |

Numbers are rounded to the nearest \$0.1 million

### Contract-to-Date (CTD) Schedule Variance (-\$55.1M/-5.6%)

The CTD unfavorable schedule variance relates to re-sequencing of D&D discrete work to align with availability of D&D workers causing a delay in start of work on 242-Z activities. Also contributing to the variance, the 234-5Z Backside Rooms team was assigned to higher priority work scope associated with unplanned door modifications, which supported the in-situ size reduction efforts on the HC-9B and HA-9A Gloveboxes located in 234-5Z. Delays have been caused by Stop Works on discrete D&D work associated with Beryllium, tight fitting masks, demister, weather (heat), PremAire breathing air systems and suits, chemical smells, contamination cleanup efforts as a result of a malfunctioning criticality alarm system, and radiological events. Also, duct level characterization, process vacuum, transfer and drain line teams were previously assigned to perform other critical path work in the 236-Z PRF, 242-Z Americium Facility, and Remote Mechanical A (RMA)/ Remote Mechanical C (RMC) key performance parameters (KPP) glovebox removal work efforts. As a result of this realignment of plant priorities and changing approach (area vs. system) to performing work within the balance of 234-5Z, characterization, and process equipment (e.g., ducting, piping, filter box etc.) removal is lagging. In addition, progress on the D&D project management Work Breakdown Structure (WBS) element is apportioned to the discrete D&D work scope and contributes to this variance. Impacts have also been recognized, resulting from a chemical reaction when working on the PRF canyon floor cleanup efforts, failure of the PRF Canyon Crane, increased characterization efforts for safeguards termination issues, impacts from a contamination event resulting from a false criticality alarm during preventive maintenance activities, cleanup of a contamination event in 234-5Z, Room 264, delays in electrical isolations in PRF, and greater than anticipated efforts to prepare the PRF canyon for demolition. Delays in asbestos are a result of the unplanned removal of a wall in 234-5Z Aces 2. Electrical isolations are required for each section of wall and has caused considerably more time than planned further delaying asbestos abatement activities. As a result of the wall removal and electrical isolations, it was discovered that 9.4K feet of additional asbestos was between the walls that would need to be removed. This is a recognized risk (PFP-092-02) and a BCR is planned to incorporate this additional work into the PFP baseline. Delay of demolition and installation of the cover cap following demolition of the 234-5Z and 291-Z facilities and the apportioned control accounts (i.e., 011.05.C3.01, 011.05.C3.03, and 011.05.C3.04) are also contributing to the variance. The demolition of 234-5Z and 291-Z has been delayed due to resources being redirected to support ready for demolition activities associated with 234-5Z, 242-Z, and 236-Z (other project critical path work). In addition, demolition experienced additional delays as a result of inclement weather and equipment failures. This is partially offset by completion of E4 characterization and scope avoidance as a result of favorable results from room characterization, removal of gloveboxes, demolition of the sixth floor, fifth floor, fourth floor, and South Canyon Airlock on 236-Z in PRF, and demolition of 2727-Z and 2729-Z facilities.

**CTD Cost Variance (-\$56.1M/-6.1%)**

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 Techs, and D&D workers (as the result of 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 (~9,400 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 (-\$72.3M/-7.4%)**

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 contract to date (CTD) schedule variance above are also driving the negative VAC. As a result of the wall removal and electrical isolations, it was discovered that 9.4K 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. 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<br>Nuclear Matl Stab & Disp<br>PFP | FY2017               |                      | Variance |
|----------------------------------------------------|----------------------|----------------------|----------|
|                                                    | Projected<br>Funding | Spending<br>Forecast |          |
| Spending Forecast                                  | 104.9                | 111.3                | (6.5)    |
| Incremental Scope Pending<br>Change Management     | 0.0                  | 0.0                  | 0.0      |
| RL-0011 - Total                                    | 104.9                | 111.3                | (6.5)    |

Numbers are rounded to the nearest \$0.1 million

**Funds/Variance Analysis**

Fiscal year (FY) 2017 expected funding for PBS RL-0011 is \$104.9 million. The Fiscal Year Spend Forecast (FYSF) for January decreased slightly to \$111.3 million. The funds in this control point for

estimate to complete (ETC) for regular scope are adequate to support current work. Continuing to recognize efficiencies will be necessary to support slab removal.

### Critical Path Schedule

The PFP Critical Path Schedule is a resource-driven float path in which the critical path starts by removing 26" vacuum process piping from the duct level of 234-5Z. This leads into cleanout of the Filter Rooms on the 2<sup>nd</sup> floor, followed by the final paint and fixative application of E-4 in preparation for demolition. Once completed, the Documented Safety Analysis (DSA) will transition to the demo phase, thus officially declaring 234-5Z 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.

## MILESTONE STATUS

Tri-Party Agreement milestones represent significant events in project execution. DOE Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The 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 | PFP Facility Transition and Selection Disposition Activities | 09/30/17 |             | 8/16/17       | During the month of January, the PFP project gained 13 days on the schedule from the December month end forecast completion date of the Tri-Party Agreement milestone for the PFP Project to reach Slab on Grade. This is as a result of gained efficiencies on asbestos removal activities. 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 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-11, 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  
(KBO&PR)

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

January 2017  
CHPRC-2017-01, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

1. Based upon discussions between RL and CHPRC Senior Management, the Sludge Treatment Plant (STP) Team has modified the field execution schedule (FES) to implement acceleration opportunities that could potentially facilitate the transfer of all sludge to T Plant in fiscal year (FY) 2018. 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 schedule duration.
  - Reduced approval time on T Plant safety documentation is necessary.
  - CD-4 approval must occur concurrently with commencing sludge retrieval operations.
  - Approval of integrated 105K West Documented Safety Analysis (DSA) will occur within 120 days of submittal.
2. The 100K Operations group continued maintaining facilities in a safe and compliant condition, supporting continued debris dose mapping and relocation activities in 105KW Basin and performance of several monthly and quarterly routines during the period. In addition, support was provided to Sludge Removal Project (SRP) for Annex/ In-Basin equipment installation and facility modifications.
3. The effort to retrieve and containerize the sludge pile in the KW Basin Center Bay discovered during debris mapping continued as resources allow.
4. CHPRC staff continued to close comments with individual Safety Basis Review Team (SBRT) members on the 105K West Facility DSA and technical safety requirement (TSR) documents. Proposed resolutions are in development. CHPRC staff will continue to work with the SBRT to address comments as efficiently as possible, with the expectation that the activities in the Field Execution Schedule can be met. The DSA/TSR must be approved and implemented prior to integrated K Basin Preoperational Acceptance Testing (KPAT) activities that transfer 105K West Basin water into the 105K West Annex.
5. The final draft of the One-Time Request for Shipment (OTRS) has been submitted to RL for review and approval. The development of the OTRS continues on schedule.

## 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           | 0                | N/A                                                                                                                                                                                                                                                                          |
| First Aids          | 1           | 16               | <ul style="list-style-type: none"> <li>1/05/17: While assisting with moving a rolling ladder, the employee was struck in the face by the ladder. The other employee raised the opposite end causing the ladder to move downward. Body part affected: Face (24300)</li> </ul> |
| Near Misses         | 0           | 0                | N/A                                                                                                                                                                                                                                                                          |

## KEY ACCOMPLISHMENTS

### RL-0012 Accomplishments

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

- Engineered Container Retrieval and Transfer System (ECRTS) Process Equipment Procurement:
    - o Procurement Set #8: Sludge Transport & Storage Container (STSC) Vessels – ABW personnel have been evaluating the change orders associated with delivery of 24 STSCs that are free of iron contamination. Once CHPRC and ABW agree on the outstanding change orders, ABW & HiLine will proceed with testing and cleaning activities on STSC 402-409. ABW continues to make excellent progress on the fabrication of STSC vessels #414-424 within the provision of the contract/corrective action plan.
    - o Procurement Set #9: Safety Significant STSC Assemblies (Instrumentation & Appurtenances) – CHPRC personnel have approved the Becht Engineering model/calculation that provides the seismic response spectra, which will be utilized when testing the STSC Instrumentation & Appurtenances. A third completed STSC assembly was delivered to MASF and will be temporarily stored there pending a more permanent STSC storage location.
- Maintenance and Storage Facility (MASF) Facility – The MASF test team completed the effort to re-establish the ECRTS mockup and finalized leak testing of the spare ECRTS production equipment. The Joint Test Group (JTG) continued their review of the MASF Pre-Operational Acceptance Test (MPAT) final test report. Two sessions were held with solid progress achieved. Solid progress is also being made on producing the documentation to support the K-Basin Preoperational Acceptance Test (KPAT) at the 105KW Basin/Annex early next calendar year.

**PTS**

- Training and Procedures
  - o Updated all ECRTS mode procedure data sheets to reflect the procedure(s) process/collection steps.
- Field Work
  - o KW Annex Construction
    - Continued installation of Truck Scale Trailer Bumpers and Loading Dock Guard railing.
    - Truck scale calibration completed.
    - Performed final welds and tie-in for Nitrogen System.
    - Final positioned and secured Nitrogen System bottle racks.
    - Completed nitrogen system high-pressure leak test.
    - Continued air dryer exhaust modification.
  - o KW Basin In Basin Modifications Construction
    - Set continuous air monitors in the Basin and completed final power tie-in for radiation monitoring system.
    - Removed scaffolding that supported electrical installation and started demobilization efforts.
  - o T Plant Modification Construction
    - Construction provided support for the T-Plant loading dock designs.
    - Received Nitrogen Purge system design change. Issued change order to the contractor for expedited material procurement. Material scheduled for delivery the last week of January.

## MAJOR ISSUES

**T Plant****Issue:**

T Plant Construction is experiencing an approximate 4.5-month field execution schedule delay on completion of the Nitrogen Purge System (no impact to critical path):

- 1) Nitrogen system design changes issued in late December have resulted in a delay to the delivery of SS nitrogen material.
- 2) Nitrogen gas was not included as part of the firm fixed price (FFP) contract award.
- 3) Nitrogen System Acceptance Test Procedure (ATP) is in engineering development and then needs final approval by the Design Authority (DA).

**Corrective Actions:**

- 1) Contractor provided change order to expedite procurement of the revised SS nitrogen components. Engineering has provided a workaround to expedite the Staubli connector needed for the CAT.
- 2) FFP contractor provided a change order to fill the nitrogen bottles required to support the CAT testing, and therefore the potential schedule delay has been mitigated.
- 3) ECRTS Design Agent and T Plant DA to expedite completion and final approval of the revised Nitrogen ATP. Once approved construction planner to expedite related construction work package approval.

**Status:**

- 1) Remaining long lead SS nitrogen material to be delivered and installed in February 2017 – delay from previous month due to impacts of weather delays.

- 2) Schedule impact has been mitigated and installation is scheduled for February 2017 - delay from previous month due to impacts of weather delays.
- 3) Construction ATP work package has been drafted and will be transitioned to an operations work package. Critical lift clarifications are being incorporated into the ATP work package. Forecasted ATPs has to start in March 2017.

## **Sludge Removal Project**

### **Issue 1:**

Based upon iron contamination discoveries in STSC 402, 403, and 410-413, ABW was instructed to conduct free iron testing of all remaining STSCs (STSC 404-409 & 414-424).

### **Corrective Action:**

ABW and CHPRC Technical Staff have developed procedures to aggressively remove iron contamination from STSCs and validate cleanliness via free iron testing of all 12 STSCs fabricated in FY2016 (first production run) and all 11 STSCs being fabricated in FY2017 (second production run).

### **Status:**

1. STSC 410-413 were cleaned, retested, and accepted by CHPRC - Complete.
2. CHPRC has completed a causal analysis, which provides the basis for settling outstanding change orders and resolving this issue - Complete.
3. STSC 402-403 remain at HiLine (with instrumentation/appurtenances installed) and will be tested, cleaned, and retested by HiLine personnel, due to the difficulty and expense of returning these vessels to Arlington, WA, with instrumentation and appurtenance installed. Anticipate this work starting in February.
4. STSC 404-409 have been shipped back to Arlington, WA, for testing, cleaning, and retesting, as appropriate. This work scope is on hold until CHPRC and ABW reach agreement on a change order. Anticipate this work commencing in February.
5. STSC 414-424 will be tested for free-iron, cleaned, and retested, as appropriate – forecasted delivery 09/17.

### **Issue 2:**

The schedule for resolving DOE-RL Safety Basis Review Team (SBRT) comments on the 105K West Basin/Annex DSA/TSR is slipping putting the activity in jeopardy of negatively impacting the KPAT Integrated Test.

### **Corrective Action:**

Continue working closely with the DOE-RL SBRT to resolve comments prior to the end of February. Expedite comment incorporation, CHPRC internal approval of the update DSA/TSR Package, and DOE-RL approval of that package.

### **Status:**

CHPRC is forecasting a completion date for having all DOE-RL SBRT comments incorporated by February 22, 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 spotlight chart:</b><br>No major changes to the monthly spotlight chart in the month of <b>January</b> . |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                     |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |           |         |   |                                                                                         |          |         |     |                                                                                |         |        |    |                                  |         |         |    |                                |         |         |   |
| <b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                     |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |           |         |   |                                                                                         |          |         |     |                                                                                |         |        |    |                                  |         |         |    |                                |         |         |   |
| STP-072:<br>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.<br><br><b>Risk Handling Strategy:</b> Control<br><br><b>Probability:</b> Medium (26% to 74%)<br><b>Worst Case Impacts:</b> \$3,000K 120 days | <span style="color: red; font-size: 24px;">●</span> | <span style="color: blue; font-size: 24px;">↑</span> | <b>Risk Event:</b><br>Event 1: Rust was discovered in STSCs. As a result, additional testing and cleaning is required to correct this condition.<br>Event 2: 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.<br><br><table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="text-align: center;">Risk recovery action(s)</th> <th style="text-align: center;">Risk Date</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>Event 1 - Finalize Field FES activities dates consistent with change orders</td> <td style="text-align: center;">5/13/16</td> <td style="text-align: center;">2/28/17</td> <td style="text-align: center;">70</td> </tr> <tr> <td>Event 2 - Establish Scope of STS Cask Rework and Submit Change Order to HiLine</td> <td style="text-align: center;">12/7/16</td> <td style="text-align: center;">2/2/17</td> <td style="text-align: center;">85</td> </tr> <tr> <td>Complete Procurement/Fabrication</td> <td style="text-align: center;">12/7/16</td> <td style="text-align: center;">2/30/17</td> <td style="text-align: center;">25</td> </tr> <tr> <td>Deliver equipment to 100K Area</td> <td style="text-align: center;">12/7/16</td> <td style="text-align: center;">3/30/17</td> <td style="text-align: center;">0</td> </tr> </tbody> </table> <b>Recovery Action Assessment:</b><br>Event 1: STSCs 410-413 were successfully cleaned and shipped to the Hanford site. ABW is on hold for further cleaning until a CO for STSCs 410-413 is settled with CHPRC, explaining the slip in completion date.<br>Event 2: A change order was provided to HiLine to procure new seals and bolts to facilitate establishing a STS Cask with leak tight integrity. New seal system should increase reliability of system and facilitate minimal corrective maintenance during shipping campaign. HiLine provided a cost proposal and CHPRC is conducting a fair cost estimate prior to final approval. The change order is forecasted to complete on February 2, 2017. | Risk recovery action(s) | Risk Date | FC Date | % | Event 1 - Finalize Field FES activities dates consistent with change orders             | 5/13/16  | 2/28/17 | 70  | Event 2 - Establish Scope of STS Cask Rework and Submit Change Order to HiLine | 12/7/16 | 2/2/17 | 85 | Complete Procurement/Fabrication | 12/7/16 | 2/30/17 | 25 | Deliver equipment to 100K Area | 12/7/16 | 3/30/17 | 0 |
| Risk recovery action(s)                                                                                                                                         | Risk Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | FC Date                                             | %                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |           |         |   |                                                                                         |          |         |     |                                                                                |         |        |    |                                  |         |         |    |                                |         |         |   |
| Event 1 - Finalize Field FES activities dates consistent with change orders                                                                                     | 5/13/16                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 2/28/17                                             | 70                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |           |         |   |                                                                                         |          |         |     |                                                                                |         |        |    |                                  |         |         |    |                                |         |         |   |
| Event 2 - Establish Scope of STS Cask Rework and Submit Change Order to HiLine                                                                                  | 12/7/16                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 2/2/17                                              | 85                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |           |         |   |                                                                                         |          |         |     |                                                                                |         |        |    |                                  |         |         |    |                                |         |         |   |
| Complete Procurement/Fabrication                                                                                                                                | 12/7/16                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 2/30/17                                             | 25                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |           |         |   |                                                                                         |          |         |     |                                                                                |         |        |    |                                  |         |         |    |                                |         |         |   |
| Deliver equipment to 100K Area                                                                                                                                  | 12/7/16                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 3/30/17                                             | 0                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |           |         |   |                                                                                         |          |         |     |                                                                                |         |        |    |                                  |         |         |    |                                |         |         |   |
| STP-125-B:<br>Inclement Weather - ECRTS Annex/In-Basin Equip.                                                                                                   | Inclement weather and site closure days will have a day-for-day impact on construction execution and contractor performance with ECRTS equipment delivery and placement in the Annex or Basin.<br><br><b>Risk Handling Strategy:</b> Accept<br><br><b>Probability:</b> Likely (75% to 90%)<br><b>Worst Case Impacts:</b> \$50K, 12 days                                                                                                                                         | <span style="color: red; font-size: 24px;">●</span> | <span style="color: blue; font-size: 24px;">↓</span> | <b>Risk Event:</b><br>The project has incurred lost time delays in <b>January</b> as a result of inclement weather. The project incurred site closure days on January 9th, 18th, and 19th. There were also three-hour delays or early release on January 3rd, 10th, 11th, 17th and 23rd.<br><br><table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="text-align: center;">Risk recovery action(s)</th> <th style="text-align: center;">Risk Date</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>Obtain weather conditions for the area and adjust daily work scope/schedule accordingly</td> <td style="text-align: center;">12/15/16</td> <td style="text-align: center;">Ongoing</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table> <b>Recovery Action Assessment:</b><br>Project estimates, per RL, allow only fair weather estimating practices and do not consider the impacts associated with normal local weather conditions. The implication is that planned time in the Annex and Basin will be reduced during both warm and cold weather. Common weather conditions such as high winds, ice storms, snow storms, and lightning will cause work scope delays potentially extending the project schedule duration and increasing costs. Work/Rest regiments can consume 2-4 hours each day and ice, snow, and wind closures have a day-to-day impact on the project schedule. No additional mitigation actions have been identified at this time.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Risk recovery action(s) | Risk Date | FC Date | % | Obtain weather conditions for the area and adjust daily work scope/schedule accordingly | 12/15/16 | Ongoing | N/A |                                                                                |         |        |    |                                  |         |         |    |                                |         |         |   |
| Risk recovery action(s)                                                                                                                                         | Risk Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | FC Date                                             | %                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |           |         |   |                                                                                         |          |         |     |                                                                                |         |        |    |                                  |         |         |    |                                |         |         |   |
| Obtain weather conditions for the area and adjust daily work scope/schedule accordingly                                                                         | 12/15/16                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 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 <b>January</b> .                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                     |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |           |         |   |                                                                                         |          |         |     |                                                                                |         |        |    |                                  |         |         |    |                                |         |         |   |

| Unmitigated Risk Impacts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Assessment |       | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                      |         |   |                                                                                              |          |     |                                                                                                                                                        |         |     |                                              |           |     |                                                                                                     |           |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------|---|----------------------------------------------------------------------------------------------|----------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----|----------------------------------------------|-----------|-----|-----------------------------------------------------------------------------------------------------|-----------|-----|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Month      | Trend |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      |         |   |                                                                                              |          |     |                                                                                                                                                        |         |     |                                              |           |     |                                                                                                     |           |     |
| <b>RL-0012/WBS-012</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      |         |   |                                                                                              |          |     |                                                                                                                                                        |         |     |                                              |           |     |                                                                                                     |           |     |
| <b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      |         |   |                                                                                              |          |     |                                                                                                                                                        |         |     |                                              |           |     |                                                                                                     |           |     |
| <b>FY2018 Risk Triggers</b> (Risk could be realized in FY2018)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      |         |   |                                                                                              |          |     |                                                                                                                                                        |         |     |                                              |           |     |                                                                                                     |           |     |
| STP-018-O: STP Operational Upset or Spill - During 1st STSC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | An operational upset or spill results in a work shutdown at K Basins, resulting in schedule delays.<br><b>Risk Handling Strategy:</b> Control<br><br><b>Probability:</b> Medium (26% to 74%)<br><b>Worst Case Impacts:</b> \$1.3 million, 96 days                                                                                                                                                                                                                                                                                                                                                                      | ●          | ↔     | <p><b>Risk Trigger:</b><br/>1) An operational upset or spill results in work shutdown at K Basin. This risk will commence in FY2018 and continue throughout project lifecycle until 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><br/>No major changes in the month of <b>January</b>.<br/>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 |                                              |           |     |                                                                                                     |           |     |
| 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        |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      |         |   |                                                                                              |          |     |                                                                                                                                                        |         |     |                                              |           |     |                                                                                                     |           |     |
| STP-073-C: Processing Efficiency - Retrieval & Shipping, During 1st STSC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | The realized processing efficiency associated with sludge retrieval and shipping operations does not match baseline plan.<br><b>Risk Handling Strategy:</b> Accept<br><br><b>Probability:</b> Low (10% to 25%)<br><b>Worst Case Impacts:</b> \$0K, 8 days                                                                                                                                                                                                                                                                                                                                                              | ●          | ↔     | <p><b>Risk Trigger:</b><br/>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><br/>No major changes in the month of <b>January</b>.<br/>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 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        |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      |         |   |                                                                                              |          |     |                                                                                                                                                        |         |     |                                              |           |     |                                                                                                     |           |     |
| 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.<br><b>Risk Handling Strategy:</b> Control<br><br><b>Probability:</b> Medium (26% to 74%)<br><b>Worst Case Impacts:</b> \$4.5 million, 90 days | ●          | ↔     | <p><b>Risk Trigger:</b><br/>1) The ECRTS equipment does not operate as expected.<br/>2) Unexpected attrition of critical testing personnel.</p> <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>3/15/17</td> <td>25</td> </tr> <tr> <td>Develop streamline strategy (work packages and procedures) to perform in-basin/annex integrated testing and troubleshooting.</td> <td>3/15/17</td> <td>10</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> <p><b>Mitigation Assessment:</b><br/>No major changes in the month of <b>January</b>.<br/>Forecasted mitigation dates are consistent with overall STP critical path schedule.</p>                 | Mitigation action(s) | FC Date | % | Develop and refine procedures based upon feedback from testing and operations personnel.     | 3/15/17  | 25  | Develop streamline strategy (work packages and procedures) to perform in-basin/annex integrated testing and troubleshooting.                           | 3/15/17 | 10  | 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3/15/17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 25         |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      |         |   |                                                                                              |          |     |                                                                                                                                                        |         |     |                                              |           |     |                                                                                                     |           |     |
| Develop streamline strategy (work packages and procedures) to perform in-basin/annex integrated testing and troubleshooting.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 3/15/17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 10         |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      |         |   |                                                                                              |          |     |                                                                                                                                                        |         |     |                                              |           |     |                                                                                                     |           |     |
| 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>Unassigned Risks</b> (Pending ownership of identified threats/opportunities)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      |         |   |                                                                                              |          |     |                                                                                                                                                        |         |     |                                              |           |     |                                                                                                     |           |     |
| 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. If contract direction is given to accommodate the acceleration opportunities to the SRP project and the transfer of all sludge to T Plant is incorporated into FY2018, then CHPRC would re-assume ownership of these risks. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      |         |   |                                                                                              |          |     |                                                                                                                                                        |         |     |                                              |           |     |                                                                                                     |           |     |

## PROJECT BASELINE PERFORMANCE

### Current Month

(\$M)

| RL-0012<br>Spent Nuclear Fuel<br>Stabilization and<br>Disposition | Budgeted<br>Cost<br>of Work<br>Scheduled | Budgeted<br>Cost<br>of Work<br>Performed | Actual<br>Cost<br>of Work<br>Performed | Schedule<br>Variance<br>(\$) | Schedule<br>Variance<br>(%) | Cost<br>Variance<br>(\$) | Cost<br>Variance<br>(%) |
|-------------------------------------------------------------------|------------------------------------------|------------------------------------------|----------------------------------------|------------------------------|-----------------------------|--------------------------|-------------------------|
| Total                                                             | 6.2                                      | 7.3                                      | 4.2                                    | 1.1                          | 18.0%                       | 3.1                      | 42.3%                   |

Numbers are rounded to the nearest \$0.1 million

#### CM Schedule Performance (+\$1.1M/+18.0%)

The project is showing a significant positive schedule variance due to utilization of overtime to accelerate installation of field equipment in the Annex and In-Basin areas, and construction acceptance testing to achieve sludge retrievals by 2018. Also contributing to the positive variance is work starting earlier than planned on Procurement Set 9 – fabrication of the fill tube and float assemblies for STSCs 14 through 24 as this work was initiated in conjunction with STSCs 2 through 13.

#### CM Cost Performance (+\$3.1M/+42.3%)

The current month positive cost variance has several contributors. The initial award for fabrication of STSC vessels 14-24 was lower than planned to date, however fabrication is still in process and the possibility of future contract changes still exist. Equipment installation is being performed at a lower cost than planned as FFP contracts were awarded at a price less than planned with minimal design changes to date. Efficiencies have been achieved by centralizing program management responsibilities to reduce overall resource requirements to the PBS. All required work scope is being accomplished with the reduced staff. Labor continues to underrun in the ECRTS Testing account, as technicians and engineers are supporting other projects. Long-term, the ECRTS testing scope is expected to complete under budget, and the EAC reflects this current and projected underrun.

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

| RL-0012<br>Spent Nuclear<br>Fuel Stabilization<br>and Disposition | Budgeted<br>Cost<br>of Work<br>Scheduled | Budgeted<br>Cost<br>of Work<br>Performed | Actual<br>Cost<br>of Work<br>Performed | Schedule<br>Variance<br>(\$) | Schedule<br>Variance<br>(%) | Cost<br>Varianc<br>e<br>(\$) | Cost<br>Variance<br>(%) | Budget at<br>Completion<br>(BAC) | Estimate at<br>Completion<br>(EAC) | Variance at<br>Completion<br>(VAC) |
|-------------------------------------------------------------------|------------------------------------------|------------------------------------------|----------------------------------------|------------------------------|-----------------------------|------------------------------|-------------------------|----------------------------------|------------------------------------|------------------------------------|
| Total                                                             | 646.7                                    | 650.5                                    | 619.9                                  | 3.8                          | 0.6%                        | 30.7                         | 4.7%                    | 740.2                            | 712.8                              | 27.4                               |

Numbers are rounded to the nearest \$0.1 million

### **CTD Schedule Performance (+\$3.8M/+0.6%)**

The variance is within reporting thresholds.

### **CTD Cost Performance (+\$30.7M/+4.7%)**

The variance is within reporting thresholds.

### **Variance at Completion (+\$27.4M/+3.7%)**

The variance is within reporting thresholds.

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

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

| RL-0012<br>Spent Nuclear Fuel<br>Stabilization and Disposition | FY2017               |                      | Variance    |
|----------------------------------------------------------------|----------------------|----------------------|-------------|
|                                                                | Projected<br>Funding | Spending<br>Forecast |             |
| Expense - Spending Forecast                                    | 36.6                 | 32.1                 | 4.5         |
| Incremental Scope Pending<br>Change Management                 | 0.0                  | 0.0                  | (0.0)       |
| Expense - Subtotal                                             | 36.6                 | 32.1                 | 4.5         |
| Line Item                                                      | 57.8                 | 49.1                 | 8.7         |
| Incremental Scope Pending<br>Change Management                 | 0.0                  | 0.0                  | 0.0         |
| LI -Subtotal                                                   | 57.8                 | 49.1                 | 8.7         |
| <b>RL-0012 – Total</b>                                         | <b>94.4</b>          | <b>81.2</b>          | <b>13.2</b> |

Numbers are rounded to the nearest \$0.1 million.

### Funds/Variance Analysis

FY2017 projected funding for project breakdown structure (PBS) RL-0012 is \$94.4 million. Positive variance of \$4.5M in expense funding is the result of reclassification of Garnet Filter Media Removal and Sand Filter Media Removal scopes being transferred from RL-0012 to RL-0041, savings forecast for sample maintenance from PNNL, and savings forecast for project management scope – work is being performed with reduced staff. Positive variance in line item 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 preparation of the Sludge Transportation System Cask & STSC Assembly for installation into the 105K West Annex in support of Construction Acceptance and Preoperational Acceptance Testing. 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 Project is implementing acceleration strategies to complete sludge retrieval by September 30, 2018.

## MILESTONE STATUS

Tri-Party Agreement milestones represent significant events in project execution. DOE Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The 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 |             | 8/12/2018     | 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 approval is 2/07/2018. |
| M-016-177 | Complete installation of sludge transfer equipment in K West Reactor facilities | 9/30/2017 |             | 3/16/2017     |                                                                                                                                                                                                                  |

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

None currently identified.

## DOE ACTIONS / DECISIONS

| Description                                                                | CHPRC Delivery Date | RL Due Date |
|----------------------------------------------------------------------------|---------------------|-------------|
| DOE-RL Issue SER for Integrated KW Basin DSA/TSR                           | 3/03/17             | 3/17/17     |
| Informal RL Scenario Review of Emergency Planning Hazard Assessment (EPHA) | 2/08/17             | 2/11/17     |
| RL Concur on Integrated DSA/TSR Comment Resolution                         | 1/27/17             | 2/09/17     |
| RL Prepare Integrated DSA/TSR SER                                          | 2/10/17             | 2/21/17     |
| RL SRB Review of Integrated DSA/TSR                                        | 2/24/17             | 3/02/17     |
| RL Review of OTRS                                                          | 1/17/17 (A)         | 5/16/17     |
| WAC HNF-EP-0063 RL Review/Approval of Request for Exception                | 2/22/17             | 2/28/17     |
| RL Review and Approve MDSA and TSR Rev.12                                  | 12/01/16 (A)        | 2/28/17     |

# Section C

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



**C. J. Simiele**  
Vice President for  
Waste and Fuels  
Management Project  
(W&FMP)

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

January 2017  
CHPRC-2017-01, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

During January reporting period, December 26 – January 22, 2017, Waste and Fuels Management Project (W&FMP) maintained facilities in a safe and compliant condition.

The project experienced a significant number of work delays, early releases, and cancellations due to adverse weather conditions on the Hanford Site and surrounding communities, where non-essential personnel were advised not to report to work. This resulted in an impact on performance and accomplishments. 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) developed a recovery plan and work package to mitigate the high dose field in the canyon. W-130 also completed Ventilation project closeout (closeout of project submittals and change order negotiations).
- Completed a draft of M-091-52 shipping options including RH TRU 72B, Half Pact loading capability, TRU PACK II loading capability and TRU PACK III Options.

## 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 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> | 5/12/17<br><br>9/28/17 | 15%    |
| 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<br><br>9/30/17 | 92%    |
| 17-EMS-WFMP-OB3-T1 | Ensure W&FMP procedures 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<br><br>9/30/17 | 15%    |

## TARGET ZERO PERFORMANCE

|                                      | CM Quantity | Rolling 12 Month | Comment                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------|-------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Days Away, Restricted or Transferred | 0           | 3                |                                                                                                                                                                                                                                                                                                                                                                                         |
| Total Recordable Injuries            | 1           | 6                | <ul style="list-style-type: none"> <li>Employee received stitches on left right finger after using an aluminum broom that snapped in half to sweep snow. Employee was released back to work with restrictions to keep left hand ring finger clean and dry. (24304)</li> </ul>                                                                                                           |
| First Aid Cases                      | 3           | *23              | <ul style="list-style-type: none"> <li>Employee tripped and fell causing strain to right knee. (24302)</li> <li>Employee slipped on ice and fell on back causing strain to neck. (24327)</li> <li>Employee slipped on ice, falling and hitting head off ground causing head, shoulder pain, and a rolled ankle. (24329)</li> </ul> <p>*2 First Aid case, PTS in support of RL-0013.</p> |
| Near Misses                          | 0           | 0                | N/A                                                                                                                                                                                                                                                                                                                                                                                     |

## KEY ACCOMPLISHMENTS

### 13.01 Project Management

- o Performed/Completed:
  - Container Waste Complex (CWC) Temporary Authorization: W&FMP personnel drafted changes to Closure Plans for Outdoor Storage Area (OSA) A, OSA B, and D-10 OSA and distributed for joint CHPRC and RL review. This effort will establish conditions for continued storage in these areas.

### 13.02 Capsule Storage & Disposition

- o Performed/Completed:
  - Replacement of regulator and repairs of air leak in 225B aqueous makeup canyon airlock.
- o Surveillances/ Preventive Maintenance (PMs):
  - 18 Preventive Maintenance work packages.

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

- o Performed/Completed:
  - A recovery plan and work package to mitigate the high dose field in canyon.
  - Multiple mockups to refine work steps and improve ALARA for mitigation of the high dose field in canyon.
  - Ventilation project closeout (closeout of project submittals and change order negotiations).

### 13.03 Canister Storage Building (CSB)

- o Surveillances/PMs:
  - 25 PM packages.

### 13.06 Transuranic (TRU) Repackaging

- o Performed/Completed:

- Draft of M-091-52 shipping options including RH TRU 72B, Half Pact loading capability, TRU PACK II loading capability and TRU PACK III Options.
- 13.07 Waste Receiving and Processing (WRAP)**
  - o Surveillances/PMs:
    - 95 Surveillances.
    - 9 PM packages.
- 13.08 T Plant**
  - o Performed/Completed:
    - Annual electrical and mechanical maintenance on the 221T 45 ton crane.
    - Restored ACT-2 to operability.
    - Annual container audit.
  - o Surveillances/PMs:
    - 397 Surveillances.
    - 27 PM packages.
- 13.09 CWC and Low Level Burial Grounds (LLBG)**
  - o Performed/Completed:
    - Procurements for lighting replacement of CWC 2401W and 2402 series buildings.
  - o Surveillances/PMs:
    - 259 Surveillances.
    - 18 PM packages.
- 13.12 Integrated Disposal Facility**
  - o Performed/Completed:
    - CHPRC met with representatives from the DOE Project and Contracts personnel to clarify the scope and timing for the requested change proposal addressing FY2017 and FY2018 scope.
- 13.15 TRU Disposition**
  - o Performed/Completed:
    - Assessments on impact of new requirements for Revision 8 of the Waste Isolation Pilot Plant (WIPP) Waste Acceptance Criteria (WAC) to TRU waste generators.
- 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 Surveillances/Preventive Maintenance:
    - 144 Surveillances.
- 13.24 Management of Cesium and Strontium Capsules Project**
  - o Performed/Completed:
    - Review of the Capsule Storage Area (CSA) Safety Design Strategy (SDS) with RL.
    - Development/review of the Capsule Storage Area (CSA) inspection plan.
- 13.25 Capsules Interim Storage Operations**
  - Continued progress towards 30 percent design submittals for Capsule Storage System.

## 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; awaiting authorization.

**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 WIPP. 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, repacking containers, etc.). Working to streamline and consolidate existing container management procedures and shipping to Perma-Fix Northwest for repackaging when weather and DOE authorizations permit.

**Issues:**

The Canister Storage Building (CSB) FF-01 license contains a maximum stack flow rate of 9,000 cubic feet per minute (CFM), while the monitoring system at start-up was verified to be in compliance with regulatory requirements at higher flow rates.

**Corrective Action:**

RL and Washington State Department of Health (WDOH) were notified of the situation. CSB stack flow data was collected and a statistical analysis of the data was compared to a previously performed Pacific Northwest National Laboratory (PNNL) statistical analysis of other similar stacks at Hanford to justify the past flow rates at CSB of less than 9,000 CFM.

**Status:**

CSB Engineering issued a final report, CHPRC-03083, CSB Stack Qualification Testing and Comparative Analysis, on September 30, 2016. CHPRC/RL will submit a Notice of Construction (NOC) revision based on CHPRC-03083 to modify the license to reflect the wider range of CSB stack flow rates by March 21, 2017. Once approved, CSB will install higher flow capacity high-efficiency particulate air (HEPA) filters.

**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. During the course of this re-evaluation, it was determined that the 225-B (WESF) Health Hazard Level needs adjustment from High to Severe to be in alignment with WAC 246-290-490 Section 4, requiring service connections to premises posing a severe health hazard to have cross-connection installed with either:

- (A) Approved air gap installed for premises isolation; or
- (B) Approved reduced-pressure back-flow prevention assembly (RPBA) or RPDA installed for premises isolation in combination with an in plant approved air gap; or
- (C) Approved Hanford Site water sources modification with downstream controls at facilities.

**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.” DOE has reportedly identified corrective actions and communicated those to DOH.

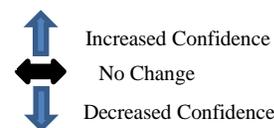
**Status:**

CHPRC submitted a pre-existing condition notification to DOE. A meeting was held on April 28, 2016, with the MSA Water Purveyor to initiate discussions on a path forward. Additionally, at the request of DOE, CHPRC prepared and presented a summary of the facility changes to compliantly isolate both potable and raw water connections. Both an approved in-plant air gap and an approved RPBA are required to meet the elevated hazard. Seven locations within the facility would require modification. DOE has provided direction to MSA that will remedy the majority of the issue with a modification at the source. A description and preliminary schedule for WESF potable water facility modifications were transmitted to DOE on July 6, 2016 (CHPRC-1602928). A meeting was held with DOE on January 12, 2017, to discuss the contractual direction that is needed to proceeding and it is expected that DOE will provide direction for potable water system facility modifications in the near future.

## RISK MANAGEMENT STATUS

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

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



| Risk Title                                                                                                                                                      | Unmitigated Risk Impacts                                                                                                                                                                                                                                                                                                                                                        | Assessment                         |                                      | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                         |           |         |   |                                                                                                      |          |         |     |                                                                                                                            |         |     |                                                |         |     |
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|                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                 | Month                              | Trend                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                         |           |         |   |                                                                                                      |          |         |     |                                                                                                                            |         |     |                                                |         |     |
| <b>RL-0013/WBS-013</b>                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                 |                                    |                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                         |           |         |   |                                                                                                      |          |         |     |                                                                                                                            |         |     |                                                |         |     |
| <b>Explanation of major changes to the project monthly stoplight chart:</b><br>No major changes to the monthly stoplight chart in the month of <b>January</b> . |                                                                                                                                                                                                                                                                                                                                                                                 |                                    |                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                         |           |         |   |                                                                                                      |          |         |     |                                                                                                                            |         |     |                                                |         |     |
| <b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)                                                                                |                                                                                                                                                                                                                                                                                                                                                                                 |                                    |                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                         |           |         |   |                                                                                                      |          |         |     |                                                                                                                            |         |     |                                                |         |     |
| WSD-W130-17: Changes in the final design are needed after the design is issued                                                                                  | 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.<br><br><b>Risk Handling Strategy:</b> Control<br><br><b>Probability:</b> Low (10% to 25%)<br><b>Worst Case Impacts:</b> \$512K, 64 days | <span style="color: red;">●</span> | <span style="color: black;">↔</span> | <p><b>Risk Event:</b><br/>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" 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>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>4/06/17</td> <td>80</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b><br/>A controlled HEPA-ventilation vent path will be provided in the hot cell cover block seams prior to placement of the last lift of grout to prevent over-pressurizing the hot cells during grouting. Risk evaluations for a positive transient pressure event during grout conveyance line cleanout and implementation of mitigating actions, as well as the high dose field in the canyon, have caused the forecasted completion date to slip <b>an additional two months</b>.</p> | Risk recovery 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 | 4/06/17 | 80  |                                                                                                                            |         |     |                                                |         |     |
| Risk recovery 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                                                                                                                                                                                                                                                                                                                                                                        | 4/06/17                            | 80                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                         |           |         |   |                                                                                                      |          |         |     |                                                                                                                            |         |     |                                                |         |     |
| 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.<br><b>Risk Handling Strategy:</b> Accept<br><br><b>Probability:</b> Likely (75% to 90%)<br><b>Worst Case Impacts:</b> \$5 million, 0 day                                                               | <span style="color: red;">●</span> | <span style="color: black;">↔</span> | <p><b>Risk Event:</b><br/>In November 2011, degraded containers were discovered in CWC.</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>Perform daily/weekly waste container surveillances to identify container abnormalities.</td> <td rowspan="3" style="text-align: center;">11/01/11</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Manage a "watch-list" of waste containers that have shown signs of degradation or are associated with degraded containers.</td> <td>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Process waste packages at a rate funded by RL.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b><br/>Project continued to perform container surveillances in the month of <b>January</b> to identify container and container cover abnormalities. The project will perform the overpack for Storage box 75DMA16F3, with a subsequent move into 2403WD. The work package is under development and work will be scheduled based on priorities. The remaining containers will continue to require surveillance and continued enhanced monitoring.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 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                            | %                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                         |           |         |   |                                                                                                      |          |         |     |                                                                                                                            |         |     |                                                |         |     |
| 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 Title                                                                                                                                                                               | Unmitigated Risk Impacts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Assessment |       | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                         |           |         |                                                    |                                                                                                                                                                                          |          |          |     |                                                                                    |         |    |                                                                                                                                             |          |   |
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|                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Month      | Trend |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         |           |         |                                                    |                                                                                                                                                                                          |          |          |     |                                                                                    |         |    |                                                                                                                                             |          |   |
| <b>RL-0013/WBS-013</b>                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         |           |         |                                                    |                                                                                                                                                                                          |          |          |     |                                                                                    |         |    |                                                                                                                                             |          |   |
| 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 or 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%)<br/><b>Worst Case Impacts:</b> \$408K, 48 days</p> | ●          | ↓     | <p><b>Risk Event:</b><br/>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" 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>Reinforce ventilation ducting system in the canyon and provide a buffer volume for air exiting the hot cells during grouting to prevent over-pressurization and spread of contamination.</td> <td rowspan="3" style="text-align: center;">12/19/16</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> <tr> <td>Develop and implement a recovery plan to address the high dose field in the canyon</td> <td style="text-align: center;">4/03/17</td> <td style="text-align: center;">35</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 style="text-align: center;">02/13/17</td> <td style="text-align: center;">0</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b><br/>On-going risk evaluations revealed a risk that during cleaning of the grout lines that the hot cells and ventilation ducting may experience a transient positive pressure event. Calculations were performed to estimate magnitude of the pressure event and to plan mitigation actions. The ventilation ducting was reinforced and a buffer volume was provided to accommodate a transient pressure spike via installation of a collapsed plastic bag at the end of the temporary ventilation line. A recovery plan has been developed to safely mitigate the high dose field in the canyon. The grouting sequence will be modified for the remainder of grouting to further mitigate the risk of radioactive material leaving the hot cells (re-sequencing of the grouting to eliminate 1 lift into each hot cell, elimination of cleanout of the grout lines into the hot cells, gravity feed of the last lift into each hot cell). Implementation of the recovery plan is forecasted to complete in April.</p> | Risk recovery action(s) | Risk Date | FC Date | %                                                  | Reinforce ventilation ducting system in the canyon and provide a buffer volume for air exiting the hot cells during grouting to prevent over-pressurization and spread of contamination. | 12/19/16 | Complete | 100 | Develop and implement a recovery plan to address the high dose field in the canyon | 4/03/17 | 35 | Implement BCR to utilize MR for change in baseline assumption and unplanned in-scope work to recover from contamination events experienced. | 02/13/17 | 0 |
| Risk recovery action(s)                                                                                                                                                                  | Risk Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | FC Date    | %     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         |           |         |                                                    |                                                                                                                                                                                          |          |          |     |                                                                                    |         |    |                                                                                                                                             |          |   |
| Reinforce ventilation ducting system in the canyon and provide a buffer volume for air exiting the hot cells during grouting to prevent over-pressurization and spread of contamination. | 12/19/16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Complete   | 100   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         |           |         |                                                    |                                                                                                                                                                                          |          |          |     |                                                                                    |         |    |                                                                                                                                             |          |   |
| Develop and implement a recovery plan to address the high dose field in the canyon                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 4/03/17    | 35    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         |           |         |                                                    |                                                                                                                                                                                          |          |          |     |                                                                                    |         |    |                                                                                                                                             |          |   |
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| <b>Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)</b>                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         |           |         |                                                    |                                                                                                                                                                                          |          |          |     |                                                                                    |         |    |                                                                                                                                             |          |   |
| <b>Lifecycle Risk Triggers (Risk could be realized at any point of the project)</b>                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         |           |         |                                                    |                                                                                                                                                                                          |          |          |     |                                                                                    |         |    |                                                                                                                                             |          |   |
| WSD-097: Major Equipment Failure - T-Plant                                                                                                                                               | <p>T Plant suffers a major equipment failure (crane, primary power supply, etc.), resulting in cost impacts, and schedule delays.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Medium (26% to 74%)<br/><b>Worst Case Impacts:</b> \$750K, 96 days</p>                                                                                                                                                                                                                                          | ●          | ↔     | <p><b>Risk Trigger Metric:</b><br/>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).</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Identify and procure spare parts for T Plant Crane</td> <td style="text-align: center;">Ongoing</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b><br/>No changes in the month of January.<br/>The project has put into place mitigating strategies (i.e., aggressive S&amp;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. The project has completed the crane bridge drive bearing repairs discovered during preventative maintenance.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 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        |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         |           |         |                                                    |                                                                                                                                                                                          |          |          |     |                                                                                    |         |    |                                                                                                                                             |          |   |

| Risk Title                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Unmitigated Risk Impacts                                                                                                                                                                                                                                                                                       | Assessment                                                                          |                                                                                     | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                       |         |   |                                                                                                                                                                                                               |         |     |                                                                                                                                           |         |     |                                                                                                                                                                                                                                                                                                                                 |           |    |
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| <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.<br><b>Risk Handling Strategy: Accept</b><br><br><b>Probability: Medium (26% to 74%)</b><br><b>Worst Case Impacts: \$2.5 million, 0 day</b> |    |    | <b>Risk Trigger Metric:</b> Will continue throughout contract (September 30, 2018).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                       |         |   |                                                                                                                                                                                                               |         |     |                                                                                                                                           |         |     |                                                                                                                                                                                                                                                                                                                                 |           |    |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                |                                                                                     |                                                                                     | Mitigation action(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | FC Date               | %       |   |                                                                                                                                                                                                               |         |     |                                                                                                                                           |         |     |                                                                                                                                                                                                                                                                                                                                 |           |    |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                |                                                                                     |                                                                                     | Continue to work with RL to fund the processing of TRU/M waste at PFNW at a rate in which 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 9/30/2017                                                                                                                                                                                                                                                                                                      | 10                                                                                  |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                       |         |   |                                                                                                                                                                                                               |         |     |                                                                                                                                           |         |     |                                                                                                                                                                                                                                                                                                                                 |           |    |
| <b>Mitigation Assessment:</b><br>No changes in the month of January.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                       |         |   |                                                                                                                                                                                                               |         |     |                                                                                                                                           |         |     |                                                                                                                                                                                                                                                                                                                                 |           |    |
| 1) MLLW: Two contracts in place with offsite commercial waste treatment which provides 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&EC). Additional capability will need to be obtained to meet regulatory requirements.<br><br>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.<br><br>Two shipments (TC155 & TC156) with a total volume of ~25m3 are scheduled to be shipped to PFNW during 2nd quarter FY2017 to support PFNW's optimal processing levels through the end of the calendar year. Additionally, PFP has shipped TRU and LLW to PFNW during the first quarter of FY2017. These shipments should provide adequate waste volumes to support PFNW's optimal processing levels for all of FY2017 and possibly FY2018. |                                                                                                                                                                                                                                                                                                                |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                       |         |   |                                                                                                                                                                                                               |         |     |                                                                                                                                           |         |     |                                                                                                                                                                                                                                                                                                                                 |           |    |
| 2) RL's action to authorize and/or fund this action.<br><br>If the TRU/M waste generated from the PRF Canyon floor cleanout (J-Pan waste) requires treatment, it would significantly impact the projects ability to have sufficient treatment capability/capability at PFNW for the processing of Legacy TRU/M waste to meet M-091-47C and -47D objectives for FY2017 and FY2018.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                       |         |   |                                                                                                                                                                                                               |         |     |                                                                                                                                           |         |     |                                                                                                                                                                                                                                                                                                                                 |           |    |
| <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.<br><b>Risk Handling Strategy: Exploit</b><br><br><b>Probability: Likely (75% to 90%)</b><br><b>Worst Case Impacts: \$32 million, 0 day</b>                                                                                          |  |  | <b>Risk Trigger Metric:</b> Will continue throughout project lifecycle (September 30, 2018).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                       |         |   |                                                                                                                                                                                                               |         |     |                                                                                                                                           |         |     |                                                                                                                                                                                                                                                                                                                                 |           |    |
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| Opportunity action(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | FC Date                                                                                                                                                                                                                                                                                                        | %                                                                                   |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                       |         |   |                                                                                                                                                                                                               |         |     |                                                                                                                                           |         |     |                                                                                                                                                                                                                                                                                                                                 |           |    |
| Plan work activities and procurements to be as efficient as possible with minimal resources.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Ongoing                                                                                                                                                                                                                                                                                                        | N/A                                                                                 |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                       |         |   |                                                                                                                                                                                                               |         |     |                                                                                                                                           |         |     |                                                                                                                                                                                                                                                                                                                                 |           |    |
| <b>Opportunity Assessment:</b><br>No changes in the month of January.<br>The project has realized efficiencies of approximately \$49 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 in which contract changes would be issued.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                       |         |   |                                                                                                                                                                                                               |         |     |                                                                                                                                           |         |     |                                                                                                                                                                                                                                                                                                                                 |           |    |

| Risk Title                                                                                                                                               | Unmitigated Risk Impacts                                                                                                                                                                                                                                                                                                                                                                              | Assessment |       | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                      |         |   |                                                                                                                                                          |          |     |                            |          |    |
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| <b>RL-0013/WBS-013</b>                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                       |            |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                      |         |   |                                                                                                                                                          |          |     |                            |          |    |
| WSD-140:<br>As-Found-Unknown<br>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> \$1,040K, 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>04/30/17</td> <td>0</td> </tr> <tr> <td>2716T Ramp &amp; Stair Rebuild</td> <td>03/31/17</td> <td>10</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b><br/>No changes in the month of January.</p> <p>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. In addition, the 2716T ramp and stairs needs rebuilt. This is the sole entrance and egress access from the tunnel excluding emergency exit. A Notice of Change was drafted in an attempt to get a contractual agreement for this change. The Notice of Change submittal will be postponed while CHPRC discusses the change with RL. 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                                                                                         | 04/30/17 | 0   | 2716T Ramp & Stair Rebuild | 03/31/17 | 10 |
| Mitigation action(s)                                                                                                                                     | FC Date                                                                                                                                                                                                                                                                                                                                                                                               | %          |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                      |         |   |                                                                                                                                                          |          |     |                            |          |    |
| Repairs to 221-T Dock #2 are needed in support of sludge receipt                                                                                         | 04/30/17                                                                                                                                                                                                                                                                                                                                                                                              | 0          |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                      |         |   |                                                                                                                                                          |          |     |                            |          |    |
| 2716T Ramp & Stair Rebuild                                                                                                                               | 03/31/17                                                                                                                                                                                                                                                                                                                                                                                              | 10         |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                      |         |   |                                                                                                                                                          |          |     |                            |          |    |
| <b>FY2017 Risk Triggers (Risk could be realized in FY2017)</b>                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                       |            |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                      |         |   |                                                                                                                                                          |          |     |                            |          |    |
| WSD-W130-18:<br>Failure of WESF Hot<br>Cell during Grouting                                                                                              | <p>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 result in cost impacts, and schedule delays.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Medium (26% to 74%)</p> <p><b>Worst Case Impacts:</b> \$768K, 96 days</p> | ●          | ↔     | <p><b>Risk Trigger Metric:</b><br/>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>4/06/17</td> <td>77</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b><br/>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 calculate estimated volume). No alternative course of actions needed at this time. Risk evaluations for a positive transient pressure event during grout conveyance line cleanout and implementation of mitigating actions, as well as the high dose field in the canyon, have caused the forecasted completion date to slip <b>an additional two months</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. | 4/06/17  | 77  |                            |          |    |
| 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. | 4/06/17                                                                                                                                                                                                                                                                                                                                                                                               | 77         |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                      |         |   |                                                                                                                                                          |          |     |                            |          |    |
| WSD-W135-15:<br>Utilization of 2003<br>Pre-Conceptual<br>Design                                                                                          | <p>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.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Very Likely (&gt;90%)</p> <p><b>Worst Case Impacts:</b> \$5,100K, 0 days</p>    | ●          | ↔     | <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><br/>No changes in the month of January.</p> <p>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        |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                      |         |   |                                                                                                                                                          |          |     |                            |          |    |

| Risk Title                                                                    | Unmitigated Risk Impacts                                                                                                                                                                                                                                                                 | Assessment |       | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      |         |   |                                                                 |          |     |
|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------|---|-----------------------------------------------------------------|----------|-----|
|                                                                               |                                                                                                                                                                                                                                                                                          | Month      | Trend |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |         |   |                                                                 |          |     |
| <b>RL-0013/WBS-013</b>                                                        |                                                                                                                                                                                                                                                                                          |            |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |         |   |                                                                 |          |     |
| WSD-W135-16:<br>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.<br><br><b>Risk Handling Strategy:</b> Accept<br><br><b>Probability:</b> Very Likely (>90%)<br><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>Preparing strategy on how to meet the DOE O 413.3B requirements</td> <td>On going</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b><br/>No changes in the month of January.<br/>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 DOE 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.</p> | Mitigation action(s) | FC Date | % | Preparing strategy on how to meet the DOE O 413.3B requirements | On going | N/A |
| Mitigation action(s)                                                          | FC Date                                                                                                                                                                                                                                                                                  | %          |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |         |   |                                                                 |          |     |
| Preparing strategy on how to meet the DOE O 413.3B requirements               | On going                                                                                                                                                                                                                                                                                 | N/A        |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |         |   |                                                                 |          |     |
| WSD-W135-17:<br>Modifications to WESF                                         | The transfer of the capsules to a dry storage will require modifications to the WESF.<br><br><b>Risk Handling Strategy:</b> Accept<br><br><b>Probability:</b> Very Likely (>90%)<br><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><br/>No changes in the month of January.<br/>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</b> (Pending ownership of identified risks/opportunities) |                                                                                                                                                                                                                                                                                          |            |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |         |   |                                                                 |          |     |
| No unassigned risks identified in the month of <b>January</b> .               |                                                                                                                                                                                                                                                                                          |            |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |         |   |                                                                 |          |     |

## PROJECT BASELINE PERFORMANCE

### Current Month

(\$M)

| WBS 013/RL-0013<br>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                                                 | 7.0                             | 6.3                             | 4.5                           | (0.7)                  | (9.9%)                | 1.8                | 28.9%             |

Numbers are rounded to the nearest \$0.1 million

#### CM Schedule Performance (-0.7M/-9.9%)

The current month negative schedule variance is associated with 013.06.01.08 – RH/Large Box Repack (-\$1.8 million) due to freezing temperatures and icy roads delaying PFNW return shipments of TC152 and TC153 and shipment of TC155 and TC156 to PFNW.

#### CM Cost Performance (+1.8M/+28.9%)

The current month cost variance is primarily attributed to experiencing a significant number of work delays, early releases, and cancellations due to adverse weather conditions on the Hanford Site and surrounding communities, where non-essential personnel were advised not to report to work. This results in positive cost for level of effort accounts.



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

| WBS 013/RL-0013<br>Waste and Fuels<br>Management<br>Project | Budgeted<br>Cost<br>of Work<br>Scheduled | Budgeted<br>Cost<br>of Work<br>Performed | Actual<br>Cost<br>of Work<br>Performed | Schedule<br>Variance<br>(\$) | Schedule<br>Variance<br>(%) | Cost<br>Variance<br>(\$) | Cost<br>Variance<br>(%) | Budget at<br>Completion<br>(BAC) | Estimate at<br>Completion<br>(EAC) | Variance at<br>Completion<br>(VAC) |
|-------------------------------------------------------------|------------------------------------------|------------------------------------------|----------------------------------------|------------------------------|-----------------------------|--------------------------|-------------------------|----------------------------------|------------------------------------|------------------------------------|
| Total                                                       | 1,120.0                                  | 1,120.4                                  | 1,048.7                                | 0.4                          | 0.0%                        | 71.7                     | 6.4%                    | 1,341.8                          | 1,290.1                            | 51.7                               |

Numbers are rounded to the nearest \$0.1 million

### CTD Schedule Performance (+0.4M/+0.0%)

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

### CTD Cost Performance (+\$71.7M/+6.4%)

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

### Variance at Completion (+\$51.7M/+3.9%)

The Variance at Completion is within threshold.

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

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

| WBS 013/RL-0013<br>Waste and Fuels<br>Management Project | FY2017               |                      | Variance |
|----------------------------------------------------------|----------------------|----------------------|----------|
|                                                          | Projected<br>Funding | Spending<br>Forecast |          |
| Estimate at Complete                                     | 103.3                | 92.1                 | 11.2     |
| Incremental Scope Pending<br>Change Management           | 0.0                  | 5.6                  | (5.6)    |
| RL-0013 – Total                                          | 103.3                | 97.6                 | 5.6      |

Numbers are rounded to the nearest \$0.1 million.

### Funds/Variance Analysis

FY2017 projected funding for PBS RL-0013 is \$103.3 million. The fiscal year spend forecast (FYSF) of \$97.6 million includes scope awaiting authorization such as accelerated TRU Repackaging. Adjustments this month are due to the continuation of WESF Ventilation and Stabilization Project (W-130) into FY2017, increasing W-130 FYSF and impacts of reduced labor costs due to inclement weather. W-130 continues to experience unanticipated conditions such as contamination within the temporary ventilation system and inclement weather resulting in further delays to the project finish. Offsetting adjustments included reducing WESF Base Operations by those resources dedicated to W-130 and deferring some of the scope awaiting authorization to FY2018 (e.g. additional Large Box Repackaging, RCRA Environmental Enhancements, and Roof Sealants).

### Critical Path Schedule

WESF Ventilation & Stabilization Project, W-130, critical path showed a completion date at January month end for Performance Measure, PM-13-5-16, on March 23, 2017. 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. A recovery plan has been developed to safely mitigate the high dose field. The grouting sequence will be modified for the remainder of grouting to further mitigate the risk of radioactive material leaving the hot cells (re-sequencing of the grouting to eliminate 1 lift into each hot cell, elimination of cleanout of the grout lines into the hot cells, gravity feed of the last lift into each hot cell).

## MILESTONE STATUS

Tri-Party Agreement milestones represent significant events in project execution. DOE Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The 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  |             | 3/31/17       | On Schedule     |
| 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  |             | 6/30/17       | On Schedule     |
| M-091-52  | Submit change request with target dates for new/modified capabilities to process TRUM waste. | 9/30/17  |             | 9/30/17       | On Schedule     |

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

| Contract Section     | Project                                                                                                        | GFS/I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Status  |
|----------------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| <b>CONTRACT</b>      |                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |         |
| J.12/C.2.2,<br>C.2.3 | PBS-11, Plutonium Finishing Plant Closure Project<br><br>PBS-13, 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 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 TSD requirements. | Ongoing |

| Contract Section | Project                                 | GFS/I                                                                                                                                                                                                                                                                           | Status                                                                   |
|------------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| 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

| Description                                                                                                   | CHPRC Delivery Date | RL Due Date |
|---------------------------------------------------------------------------------------------------------------|---------------------|-------------|
| RL Review and Approve Master Documented Safety Analysis (MDSA) and Technical Safety Requirement (TSR) Rev. 12 | 11/29/16 (A)        | 02/26/17    |

# 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

January 2017  
CHPRC-2017-01, 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) |             | Nitrate as N (kg) |              | Tech-99 (pCi)              |                            | Uranium (kg) |            |
|--------------------|-------------------------|--------------|-------------|-------------|-----------------|-------------|-------------------|--------------|----------------------------|----------------------------|--------------|------------|
|                    | CM                      | FYTD         | CM          | FYTD        | CM              | FYTD        | CM                | FYTD         | CM                         | FYTD                       | CM           | FYTD       |
| DX P&T             | 30.5                    | 126.3        | 2.8         | 12.9        |                 |             |                   |              |                            |                            |              |            |
| HX P&T             | 26.0                    | 97.2         | 2.4         | 8.9         |                 |             |                   |              |                            |                            |              |            |
| KR-4 P&T           | 12.5                    | 48.8         | 0.1         | 0.5         |                 |             |                   |              |                            |                            |              |            |
| KW P&T             | 0.0                     | 0.0          | 0.0         | 0.0         |                 |             |                   |              |                            |                            |              |            |
| KX P&T             | 37.3                    | 141.8        | 2.2         | 8.1         |                 |             |                   |              |                            |                            |              |            |
| 200 West P&T       | 93.0                    | 308.4        | 7.9         | 27.4        | 194             | 640         | 5649              | 21720        | .13x10 <sup>12</sup>       | .51x10 <sup>12</sup>       | 0.7          | 3.3        |
| <b>Combined</b>    | <b>199.2</b>            | <b>722.5</b> | <b>15.5</b> | <b>57.9</b> | <b>194</b>      | <b>640</b>  | <b>5649</b>       | <b>21720</b> | <b>.13x10<sup>12</sup></b> | <b>.51x10<sup>12</sup></b> | <b>0.7</b>   | <b>3.3</b> |
| <b>FY2017 KPG</b>  | <b>--</b>               | <b>2200</b>  | <b>--</b>   | <b>160</b>  | <b>--</b>       | <b>1700</b> | <b>--</b>         | <b>80000</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             | -             | 3                 |
| 200-ZP-1                   | 5              | -             | -                 |
| M-24 Milestone             | 5              | -             | -                 |
| 300 Area                   | 67             | -             | -                 |
| 200-DV-1                   | 5              | -             | -                 |
| <b>Total Wells</b>         | <b>103</b>     | <b>-</b>      | <b>4</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<br>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  | 25%    |

## TARGET ZERO PERFORMANCE

|                                      | CM Quantity | Rolling 12 Month | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------|-------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Days Away, Restricted or Transferred | 0           | 2                | NA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Total Recordable Injuries            | 0           | 1                | NA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| First Aid Cases                      | 5           | *49              | <ul style="list-style-type: none"> <li>• 1/3/2017 – Employee slipped and fell on ice. The individual was taken to HPMC for evaluation. (24288)</li> <li>• 1/5/2017 - Employee slipped and fell on ice. The individual was taken to HPMC for evaluation. (24299)</li> <li>• 1/8/2017 - Employee slipped and fell on ice. The individual was taken to HPMC for evaluation. (24301)</li> <li>• 1/12/2017 – Employee slipped on ice and twisted right ankle. The individual was taken to HPMC for evaluation. (24312)</li> <li>• 1/31/2017 - Employee slipped and fell on ice. The individual was taken to HPMC for evaluation. (24336)</li> </ul> <p style="text-align: center;">*9 FA cases, PTS in support of RL-0030.</p> |
| Near-Misses                          | 0           | 1                | NA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## KEY ACCOMPLISHMENTS

### RL-0030 Accomplishments

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

##### Environmental Integration

- Completed the archival of the Washington Closure Hanford River Corridor End State, Hanford Environmental Information System interface, and Environmental Remediation databases as of transition.
- The annual notification letter to RL for waste sites identified in the previous calendar year was issued on January 16, 2017, letter CHPRC-1700069. The letter was prepared to support Resource Conservation and Recovery Act of 1976 Permit Condition II.Y.3.b

##### River Corridor

- Reached agreement with RL on the adjusted scope for the *FY2017 Plume Containment and Remediation Utilization Plan* and initiated preparation of Rev 1.

##### 100-KR-4 Operable Unit

- Continued collection, analysis, and review of sampling results for the KW Rebound Study. Design and physical preparations to restart the system in April are underway.
- Completed preparations for resin addition to currently inactive vessels to increase 100-KR-4 P&T throughput by ~50 gpm. Resin addition will be completed in February.

**100-HR-3 Operable Unit**

- Provided draft-final 100-D/H Record of Decision and Responsiveness Summary to RL, EPA, and Ecology on January 24, 2017.

**100-NR-2 Operable Unit**

- Completed the cultural resource review (CRR) project description for re-injecting portions of the permeable reactive barrier and evaluation of the total petroleum hydrocarbons bioventing remediation system cleanup progress.
- Completed the second round of quarterly sampling of the 6 new monitoring wells located near the reactor. This information is being used to update the groundwater risk assessment associated with the remedial investigation (RI) report.

**300-FF-5 Operable Unit**

- Completed installation of the Stage B Uranium Sequestration roads, pads and laydown areas.
- Initiated well drilling and installation associated with the Stage B Uranium Sequestration.

**Central Plateau****200-UP-1 Operable Unit**

- Provided the Draft A Rev 2 200-UP-1 drilling sampling and analysis plan (SAP) to RL for transmittal to EPA. This revision incorporates all 24 wells associated with Tri-Party Agreement Milestone M-016-193. Met with EPA on January 19, 2017 to resolve their comments.

**200-BP-5/200-PO-1 Operable Unit**

- Briefed RL on January 5, 2017 concerning the fate and transport modeling performed in support of the 200-BP-5 removal action work plan. This modeling identifies the optimum well configuration for the proposed extraction wells.

**200-EA-1 Operable Unit**

- Completed all 147 waste site scoping summary updates based on RL comments; proceeding with contaminant 2D cross-sections.
- Conducted RL and Ecology workshop addressing waste site data needs on January 19, 2017. Supported planning efforts for the workshops scheduled for January 23, 24, and 25, 2017, (all were rescheduled from the originally planned dates due to adverse weather conditions).
- Resolved Ecology comments on change package C-16-02 addressing waste units moving to/from 200-EA-1. Preparing revised change package for RL final review and signature.

**Central Plateau Closure Plans**

- Completed four calculations evaluating the dangerous waste designations for the 216-A-29 ditch, 216-A-36B crib, 216-A-37-1 crib, and 216-B-63 ditch. Initiated calculation clearance and preparation of briefing package. These efforts are being coordinated with 200-EA-1.

**200-SW-2 Operable Unit**

- Supported RL with presentation materials for the Hanford Advisory Board River and Plateau committee workshop held January 17, 2017.

**200-DV-1 Operable Unit**

- Delivered the 200-DV-1 operable unit characterization SAP Addendum 1 for attenuation process characterization and Addendum 2 for supplemental shallow soil risk characterization sampling to RL on January 19, 2017, for transmittal to the regulators for review.

**200-ZP-1 Operable Unit**

- Briefed RL on January 24, 2017, about the progress for preparing the extraction/injection well database for 200 Area wells.

- Issued TPA-CN-0776 for review and approval on January 4, 2017. This change notice added four new injection wells and three new monitoring wells to the figures and tables in the Rev 5 200 West P&T Operations and Maintenance Plan.

**200-BC-1 and 200-WA-1 Operable Units**

- Provided the Draft Rev 0 Remedial Investigation/Feasibility Study Work Plan for the 200-BC-1 and 200-WA-1 Operable Units to RL and EPA for approval on January 12, 2017. Also provided a companion Tri-Party Agreement change package that would adjust the interim milestones to be consistent with the work plan.

**Groundwater P&T Facilities**

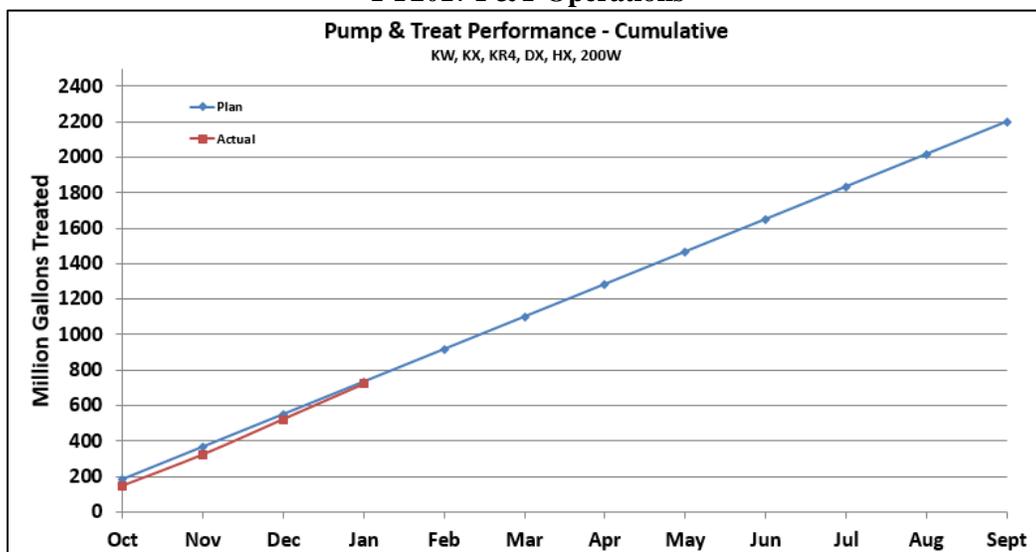
**200 West P&T**

- Operated the 200 West P&T at an average of 2,088 gpm.

**100 Area P&Ts**

- Operated the DX P&T at 683 gpm, below the facility capacity of 775 gpm.
- Operated the KR-4 P&T at 282 gpm, below the facility capacity of 330 gpm.
- The KW P&T remains turned off to perform rebound study.
- Operated the KX P&T at 834 gpm, below the facility capacity of 900 gpm.
- Operated the HX P&T at maximum extraction well capacity. Monthly average at 594 gpm.
- Several low flow wells are frozen during sustained subfreezing weather.

**FY2017 P&T Operations**

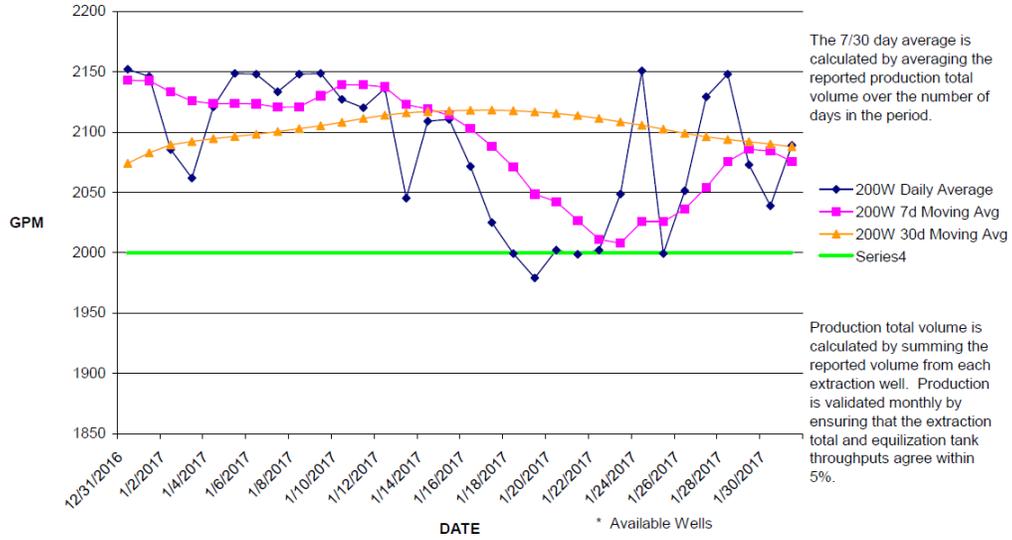


### 200 West P&T

#### 2W EXTRACTION WELLS AVERAGE DAILY FLOW RATES

Current GPM = 2089 Capacity = 2089 / 2450 = 85% \*  
 30d Average GPM = 2088 Capacity = 2088 / 2450 = 85% \*  
 7d Average GPM = 2075

Data validated thru last completed month



## MAJOR ISSUES

### Issue:

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

- Delay in Ecology review of the 200-BP-5 RI/200-PO-1 RI Addendum.
- Delay in Ecology approval of the 200-IS-1 Tri-Party Agreement change package C-013-01, which affects the 200-IS-1 RI/FS Work Plan (DOE/RL-2010-114) scope definition.

### 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: 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). Completion of this review is contingent on RL providing “adequate details” on how the modeling approach evolved from the Tank Closure & Waste Management Environmental Impact Statement (TC&WM EIS) modeling approach with a list of specific items to be provided. This issue has been elevated to RL senior management for resolution.

Received Ecology letter (16-NWP-220) dated December 28, 2016, notifying RL that Ecology is accepting the use of the Central Plateau model for the 200-BP-5 and 200-PO-1 Operable Units (OU). Delivered a draft letter to RL that responds to Ecology’s letter, indicating that most of the requested information is available in the 200-BP-5 RI report. Ecology has not provided a schedule for completion of their review.

- 200-IS-1: 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; DOE and Ecology attorneys continue working to reach agreement with an anticipated resolution of June 30, 2017, discussed. The current dispute resolution period ends March 16, 2017.

### Issue:

Based on groundwater samples taken during drilling of the first set of three wells, the 200-UP-1 southeast chromium plume extends further to the southeast than previously mapped, and will likely require additional characterization wells (beyond the six wells planned) to define the southern plume boundary. This additional characterization will impact completion of Tri-Party Agreement Milestone M-016-193 to complete the remedial design investigation of the southeast chromium plume by September 30, 2017.

### Corrective Action:

Two corrective actions have been identified:

1. Implement actions to define the southeast chromium plume. The two southern-most characterization wells drilled to date will be prioritized and resampled to confirm chromium concentrations. Six

existing groundwater monitoring wells to the south of the plume will be sampled to help establish extent of the plume and locate additional characterization wells. Cultural reviews for six potential well locations will be prepared to help define the southern extent of the plume. The results from these additional samples will be used to define the need for additional characterization wells.

2. Meet with EPA and adjust the due date for Tri-Party Agreement Milestone M-016-193.

**Status:**

Corrective Action #1: Complete.

Corrective Action #2: On-going. A meeting was held on January 19, 2017, with the EPA to adjust the due date for Tri-Party Agreement Milestone M-016-193. Verbal agreement was reached, however the Tri-Party Agreement change notice has not been signed to adjust the milestone date.

**Issue:**

The significant snow accumulations have delayed archeological field surveys, which will then delay completion of the following CRRs:

- 200-ZP-1 injection wells delayed since December 14, 2016,
- 100-HR-3 wells/conveyance lines delayed since December 14, 2016, and
- 200-UP-1 monitoring well delayed since December 20, 2016.

**Corrective Action:**

Identified a path forward with MSA to prepare the CRR for the 200-ZP-1 injection wells without the field survey. Because the field survey was not performed, additional archeological monitoring will be required during implementation. According to MSA, this approach is not possible for the remaining CRRs and as a result, they will be delayed until the archeological field surveys are able to be completed.

**Status:**

For 200-ZP-1 injection wells, the CRR was submitted for a 30-day review (issue closed). Preparation of the remaining two CRRs is delayed until the archeological field surveys can be completed.

**Issue:**

A small water leak near the base of fluidized bed reactor (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.

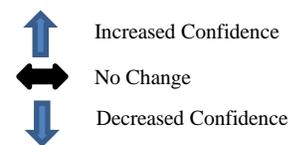
**Status:**

Contracts are in place with Augusta Fiberglass and Envirogene. Carbon removal work package is approved and ready to work. The inspection/repair work package is in approval. Mock-up of the placement of the Wear Plates is scheduled. Expect to start the inspection/repair of the tank in mid-March, if leak worsens the inspection/repair will be performed earlier.

## RISK MANAGEMENT STATUS

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

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



| Risk Title                                                                                                                  | Unmitigated Risk Impacts                                                                                                                                                                                                                                                                                   | Assessment                                            |                                                       | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                       |         |   |                                             |     |    |
|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---------|---|---------------------------------------------|-----|----|
|                                                                                                                             |                                                                                                                                                                                                                                                                                                            | Month                                                 | Trend                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |         |   |                                             |     |    |
| <b>RL-0030/WBS-030</b>                                                                                                      |                                                                                                                                                                                                                                                                                                            |                                                       |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |         |   |                                             |     |    |
| <b>Explanation of major changes to the project monthly spotlight chart:</b>                                                 |                                                                                                                                                                                                                                                                                                            |                                                       |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |         |   |                                             |     |    |
| No major changes to the risk spotlight chart in the month of <b>January</b> .                                               |                                                                                                                                                                                                                                                                                                            |                                                       |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |         |   |                                             |     |    |
| <b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>                                            |                                                                                                                                                                                                                                                                                                            |                                                       |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |         |   |                                             |     |    |
| OPPORTUNITY:<br>SGW-007A:<br>Sampling<br>Requirement<br>Reduction                                                           | Reduction in field sampling (locations, frequency, or total number of samples collected) has the opportunity to reduce long-term groundwater monitoring cost.<br><b>Risk Handling Strategy:</b> Exploit<br><br><b>Probability:</b> Very Likely (>90%)<br><br><b>Worst Case Impacts:</b> \$1 million, 0 day | <span style="color: green; font-size: 20px;">●</span> | <span style="color: black; font-size: 20px;">↔</span> | <b>Opportunity Event:</b><br>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.<br><br><table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 5px;"> <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;">86</td> </tr> </tbody> </table> Note: 30 of the planned 35 SAP revisions have been completed (86%).<br><br><b>Opportunity Assessment:</b><br>All 10 CERCLA groundwater monitoring SAPs have been revised and transmitted to RL and the regulators. Eight of the SAPs are approved and implemented. Two CERCLA SAPs (200-BP-5 and 200-PO-1) are impacted by the Central Plateau modeling issue. Use of the Central Plateau model was approved by Ecology on December 28, 2016, which will help facilitate completion of these SAPs. <span style="color: red;">The forecasted completion date is uncertain at this time.</span><br><br>All 25 RCRA monitoring plans have been reviewed and of these, 13 plans required no changes. The remaining 12 monitoring plans were revised and transmitted to Ecology for review. Comments have been received from Ecology and nine monitoring plans have been revised and implemented. The remaining three monitoring plans are in final comment incorporation and expected to complete in February, <span style="color: red;">provided Ecology can keep their meeting schedule/commitments. The final meeting on these plans is set for February 13, 2017.</span><br><br>No alternative course of actions are needed at this time. | Opportunity action(s) | FC Date | % | Obtain Agency approval of the revised SAPs. | TBD | 86 |
| Opportunity action(s)                                                                                                       | FC Date                                                                                                                                                                                                                                                                                                    | %                                                     |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |         |   |                                             |     |    |
| Obtain Agency approval of the revised SAPs.                                                                                 | TBD                                                                                                                                                                                                                                                                                                        | 86                                                    |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |         |   |                                             |     |    |
| <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>January</b> .                                                               |                                                                                                                                                                                                                                                                                                            |                                                       |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |         |   |                                             |     |    |
| <b>High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)</b>                                   |                                                                                                                                                                                                                                                                                                            |                                                       |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |         |   |                                             |     |    |
| No high risks identified in the month of <b>January</b> .                                                                   |                                                                                                                                                                                                                                                                                                            |                                                       |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |         |   |                                             |     |    |
| <b>Unassigned Risks (Pending ownership of identified risks/opportunities)</b>                                               |                                                                                                                                                                                                                                                                                                            |                                                       |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |         |   |                                             |     |    |
| No unassigned risks identified in the month of <b>January</b> .                                                             |                                                                                                                                                                                                                                                                                                            |                                                       |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |         |   |                                             |     |    |

## PROJECT BASELINE PERFORMANCE

### Current Month

### (\$M)

| RL-0030<br>Soil and<br>Groundwater<br>Remediation | Budgeted Cost<br>of Work<br>Scheduled | Budgeted<br>Cost<br>of Work<br>Performed | Actual Cost<br>of Work<br>Performed | Schedule<br>Variance<br>(\$) | Schedule<br>Variance<br>(%) | Cost<br>Variance<br>(\$) | Cost<br>Variance<br>(%) |
|---------------------------------------------------|---------------------------------------|------------------------------------------|-------------------------------------|------------------------------|-----------------------------|--------------------------|-------------------------|
| Total                                             | 11.0                                  | 7.9                                      | 6.1                                 | (3.1)                        | -28.3%                      | 1.8                      | 22.5%                   |

Numbers are rounded to the nearest \$0.1 million.

#### CM Schedule Performance (-\$3.1M/-28.3%)

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 field work initiating in FY2018.
- Similarly, preparation of the 200-OA-1 RI/FS work plan has been deferred to FY2018 to align with the priority list and available funding. This deferral has impacted the performance of the RI/FS report and PP planned for FY2017
- Positive SV gained in prior periods is returning to zero. This includes gains experienced in November by an early start on 300-FF-5 field activities and 200-PO-1 NRDWL drilling campaign planned in FY2017 but accelerated into FY2015.

#### CM Cost Performance (+\$1.8M/+22.5%)

The positive cost variance resulted from the following:

- Positive performance in the Integrations and Assessments account is due primarily to the Environmental Databases activity. A combination of a vacant position, programmer support delayed to support other priorities, and work time limited by adverse weather conditions all contributed to this underrun this month.
- Positive performance in the level of effort Project Management account this month is due primarily to the loss of work time caused by adverse weather conditions.
- Efficiencies in the GW Monitoring and Performance Assessment account resulted from the competitive rebid of the geophysical logging subcontract with the realization of a subsequent reduction in contract costs. Additionally, the closure of the WSCF Lab and the subsequent transition to offsite laboratories has allowed the project to experience significantly lower analytical laboratory costs.
- Lower than expected concentrations at the 200-W P&T facility have resulted in lower than planned chemical costs. The current month variance has been impacted by a significant number of work delays, early releases, and cancellations due to adverse weather conditions on the Hanford Site and surrounding communities, where non-essential personnel were advised not to report to work.

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

| RL-0030<br>Soil and<br>Groundwater<br>Remediation | Budgeted<br>Cost<br>of Work<br>Scheduled | Budgeted<br>Cost<br>of Work<br>Performed | Actual<br>Cost<br>of Work<br>Performed | Schedule<br>Variance<br>(\$) | Schedule<br>Variance<br>(%) | Cost<br>Variance<br>(\$) | Cost<br>Variance<br>(%) | Budget at<br>Completion<br>(BAC) | Estimate at<br>Completion<br>(EAC) | Variance at<br>Completion<br>(VAC) |
|---------------------------------------------------|------------------------------------------|------------------------------------------|----------------------------------------|------------------------------|-----------------------------|--------------------------|-------------------------|----------------------------------|------------------------------------|------------------------------------|
| Total                                             | 1,323.5                                  | 1,306.4                                  | 1,272.7                                | (17.1)                       | -1.3%                       | 33.7                     | 2.6%                    | 1,566.6                          | 1,494.4                            | 72.2                               |

Numbers are rounded to the nearest \$0.1 million.

### CTD Schedule Performance (-\$17.1M/-1.3%)

The variance is within reporting thresholds.

### CTD Cost Performance (+\$33.7M/+2.6%)

The variance is within reporting thresholds.

### Variance at Completion (+\$72.2M/+4.6%)

The variance is within reporting thresholds.

Contract Performance Report Formats are provided in Appendix A.

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

| RL-0030<br>Soil and Groundwater<br>Remediation | FY2017               |                      | Variance |
|------------------------------------------------|----------------------|----------------------|----------|
|                                                | Projected<br>Funding | Spending<br>Forecast |          |
| Spending Forecast                              | 130.7                | 105.2                | 25.5     |
| Incremental Scope Pending<br>Change Management | 0.0                  | 19.5                 | (19.5)   |
| RL-0030 –Total                                 | 130.7                | 124.7                | 6.0      |

Numbers are rounded to the nearest \$0.1 million

### Funds/Variance Analysis

FY2017 initial budget guidance received from RL reflects expected funding of \$130.7 million for RL-0030 project. The fiscal-year spending forecast (FYSF) of \$124.7 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 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 Operable Unit Pipeline System Waste Sites RFI/CMS/RI/FS Work Plan to Ecology                                                                                                                                                        | 2/28/14  |             | TBD           | Dispute resolution extended to March 16, 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  |             | 9/27/17       | On schedule                                                                                                                                                                                                                    |
| M-016-193                                | Complete the remedial design investigation of the SE chromium plume, including the installation of new wells and evaluation of the GW monitoring data and install monitoring wells needed for remedy performance monitoring as defined in the UP-1 RD/RA WP. | 9/30/17  |             | 8/30/18       | At risk, schedule extension discussion underway. Draft Tri-Party Agreement change control form provided to RL that provides justification to extend Tri-Party Agreement Milestone M-016-193 by one year to September 30, 2018. |

**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 Draft Rev 0 100-NR-2 RI Report       | 11/17/16 (A)        | 2/14/17     |
| RL Review of Decisional Draft 200-BP-5 Removal Action Work Plan | 3/23/17             | 4/22/17     |

# Section E

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



R. M. Geimer  
Vice President for  
K Basin Operations and  
Plateau Remediation  
(KBO&PR)

January 2017  
CHPRC-2017-01, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

Performed a significant amount of snow removal to perform routine surveillance and maintenance activities. The 216-Z-1 crib was stabilized with controlled density fill. Shop fabrication for the REDOX roof repairs is near completion.

### 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                      | 1             | 8                | <ul style="list-style-type: none"> <li>While approaching stairs, employee slipped on ice falling against handrail. Body part affect: Chest. (24325)</li> </ul> |
| Near Misses                          | 0             | 0                | N/A                                                                                                                                                            |

### KEY ACCOMPLISHMENTS

#### RL-0040 Accomplishments

##### Operations/Maintenance:

- Stabilized 216-Z-1 crib with controlled density fill.
- Performed additional setup at B Plant in preparation for change out of the ACT 002 pre-filter (e.g., pre-assembly of ducting, cave setup, snow removal).
- Continued development of the 60% detailed design package for the replacement PUREX stack sampling system.

##### Continued Progress on Canyon Stabilization Documents:

- Routed REDOX SAP for CHPRC review/comment.
- Met with DOE to finalize comments on PUREX EE/CA and Tier 2 Misc. Facilities RAWP.

##### REDOX Roof:

- Continued removal of perimeter fencing to aid mobilization.
- Received roofing steel structure material at offsite vendor location due to snow accumulations at the on-site location.
- Completed disposition of outstanding Hazard Review Board comments.
- Completed roof structural design for placement of waste hopper.

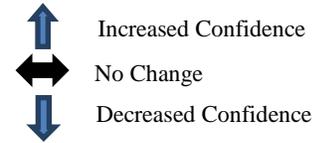
## MAJOR ISSUES

None currently identified.

## RISK MANAGEMENT STATUS

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

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



| Risk Title                                                                                                                                                      | Unmitigated Risk Impacts                                                                                                                                                                                                                                                                                                      | Assessment                                                                          |                                                                                     | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      |         |   |                               |     |     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------|---|-------------------------------|-----|-----|
|                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                               | Month                                                                               | Trend                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |         |   |                               |     |     |
| <b>RL-0040/WBS-040</b>                                                                                                                                          |                                                                                                                                                                                                                                                                                                                               |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |         |   |                               |     |     |
| <b>Explanation of major changes to the project monthly spotlight chart:</b><br>No major changes to the monthly spotlight chart in the month of <b>January</b> . |                                                                                                                                                                                                                                                                                                                               |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |         |   |                               |     |     |
| <b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)                                                                                |                                                                                                                                                                                                                                                                                                                               |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |         |   |                               |     |     |
| No realized risks for the month of <b>January</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>January</b> .                                                                                                   |                                                                                                                                                                                                                                                                                                                               |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |         |   |                               |     |     |
| <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)                                                                             |                                                                                                                                                                                                                                                                                                                               |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |         |   |                               |     |     |
| D4-064: Aging Building Systems/Components                                                                                                                       | Problems with aging building systems/components (e.g., roofing/structures, etc.) result in inoperability or requires unscheduled maintenance/outages, resulting in cost impacts.<br><br><b>Risk Handling Strategy:</b> Accept<br><br><b>Probability:</b> Likely (75% to 90%)<br><b>Worst Case Impacts:</b> \$2 million, 0 day |  |  | <b>Risk Trigger Metric:</b><br>During routine surveillance activities, unforeseen events cause systems to be compromised. This is a lifecycle risk and will continue through the CHPRC (September 30, 2018).<br><br><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><br><b>Mitigation Assessment:</b><br>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 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 <b>May 2017</b> .<br>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. | 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 <b>January</b> .                                                                                                 |                                                                                                                                                                                                                                                                                                                               |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |         |   |                               |     |     |

## PROJECT BASELINE PERFORMANCE

### Current Month

(\$M)

| WBS 040/<br>RL-0040<br>Nuclear Facility<br>D&D | Budgeted<br>Cost<br>of Work<br>Scheduled | Budgeted<br>Cost<br>of Work<br>Performed | Actual<br>Cost<br>of Work<br>Performed | Schedule<br>Variance<br>(\$) | Schedule<br>Variance<br>(%) | Cost<br>Variance<br>(\$) | Cost<br>Variance<br>(%) |
|------------------------------------------------|------------------------------------------|------------------------------------------|----------------------------------------|------------------------------|-----------------------------|--------------------------|-------------------------|
| Total                                          | 1.2                                      | 1.0                                      | 1.4                                    | (0.2)                        | -17.1%                      | (0.4)                    | -41.3%                  |

Numbers are rounded to the nearest \$0.1 million

**CM Schedule Performance: (-\$0.2M/-17.1%)**

The schedule variance is within the reporting threshold.

**CM Cost Performance: (-\$0.4M/-41.3%)**

The cost variance is within the reporting threshold.

### Contract-To-Date

(\$M)

| WBS 040/<br>RL-0040<br>Nuclear Facility<br>D&D | Budgeted<br>Cost<br>of Work<br>Scheduled | Budgeted<br>Cost<br>of Work<br>Performed | Actual<br>Cost<br>of Work<br>Performed | Schedule<br>Variance<br>(\$) | Schedule<br>Variance<br>(%) | Cost<br>Variance<br>(\$) | Cost<br>Variance<br>(%) | Budget at<br>Completion<br>(BAC) | Estimate at<br>Completion<br>(EAC) | Variance at<br>Completion<br>(VAC) |
|------------------------------------------------|------------------------------------------|------------------------------------------|----------------------------------------|------------------------------|-----------------------------|--------------------------|-------------------------|----------------------------------|------------------------------------|------------------------------------|
| Total                                          | 431.1                                    | 426.7                                    | 396.3                                  | (4.4)                        | -1.0%                       | 30.4                     | 7.1%                    | 473.9                            | 445.6                              | 28.2                               |

Numbers are rounded to the nearest \$0.1 million

**Cost to date (CTD) Schedule Performance: (-\$4.4M/-1.0%)**

The schedule variance is within reporting thresholds.

**CTD Cost Performance: (+\$30.4M/+7.1%)**

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 (+\$28.2M/+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)

| FY2017                                         |                      |                      |          |
|------------------------------------------------|----------------------|----------------------|----------|
| WBS 040/RL-0040<br>Nuclear Facility D&D        | Projected<br>Funding | Spending<br>Forecast | Variance |
| Spending Forecast                              | 36.1                 | 21.5                 | 14.6     |
| Incremental Scope Pending<br>Change Management | 0.0                  | 11.1                 | (11.1)   |
| RL-0040 – Total                                | 36.1                 | 32.6                 | 3.5      |

Numbers are rounded to the nearest \$0.1 million.

### Funds/Variance Analysis

Fiscal year (FY) 2017 projected funding for PBS RL-0040 is \$36.1 million. The incremental scope pending includes remaining scope for Redox roof replacement, silo cleanout, sample gallery cleanout, PUREX stack sampling repair, PUREX AMs and RAWPS, DQO for PUREX Tunnels, and maintenance for B Plant and Redox. The variance at completion is mainly the result of planning to perform the additional breaker preventative maintenance with existing staff within the min-safe account.

### Critical Path Schedule

Critical path analysis can be provided upon request.

## MILESTONE STATUS

Tri-Party Agreement milestones represent significant events in project execution. DOE Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The 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/<br>Comment |
|------------|---------------------------------------------------------------------------------------------------------------------|-----------|-------------|---------------|--------------------|
| M-016-250b | Submit to Ecology a three-year rolling prioritized schedule to implement waste site removal actions                 | 3/31/2017 |             | 3/31/2017     | On Schedule        |
| M-085-80A  | Submit to Ecology secondary document, a DQO report to access structural integrity of PUREX storage tunnels 1 and 2. | 9/30/2017 |             | 7/6/2017      | 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 242BBL RAWP                                                      | 10/10/16 (A)        | 01/17/17 (A) |
| RL Review of 202S Demo Prep / D&D / Annex Action Memo                         | 11/21/16 (A)        | 02/17/17     |
| RL Review of 202S Demo Prep / D&D / Annex SAP                                 | 03/01/17            | 03/14/17     |
| RL Review of 202A Demo Prep / Annex / Vent Mods Action Memo                   | 04/03/17            | 05/01/17     |
| RL Review of 221B Demo Prep & Stabilization of Legacy Vent System Action Memo | 05/16/17            | 06/14/17     |

# Section F

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



**R. M. Geimer**  
Vice President for  
K Basin Operations and  
Plateau Remediation  
(KBO&PR)

January 2017  
CHPRC-2017-01, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

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

**W. E. Kirby**  
Vice President for 300  
Area Projects

**M. A. Wright**  
Vice President for  
Project Technical  
Services (PTS)

## PROJECT SUMMARY

Support of Truthful Cost or Pricing Data deliverables for change order definitization of River Corridor Closure Contract (RCCC) scope continued in January. In addition, the project continued the following progress: 100K waste site remediation, 105-K West 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.

## 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  | 50%    |
| 17-EMS-KBOPR-OB2-T1 | Universal Waste and Recycling Compliance and Spill Prevention. | Monitor and evaluate universal waste.                  | 9/30/17  | 32%    |

## TARGET ZERO PERFORMANCE

|                                      | Current Month | Rolling 12 Months | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------|---------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Days Away, Restricted or Transferred | 0             | 0                 | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Total Recordable Injuries            | 0             | 0                 | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| First Aid Cases                      | 6             | 16                | <p>1/10/2017 – Employee walking back from mask station without a cleared walkway slipped and fell to the ground while attempting to step over a snow bank created by the snow crew plowing the road. (24298)</p> <p>1/10/2017 – Employee slipped on icy road, fell on right knee, and put left hip out. Employee was treated and released without restrictions. (24305)</p> <p>1/23/2017 – While climbing a ladder on a piece of equipment, employee experienced pain in lower left side of the back. Taken to HPMC for evaluation and released without restrictions. (24322)</p> <p>1/31/2017 – Employee slipped on compacted snow and ice while exiting vehicle and fell. Employee was examined and released without restrictions. (24338)</p> <p>1/31/2017 – Employee slipped on ice while getting out of vehicle and fell on left arm, and hip. Taken to HPMC for evaluation and released without restrictions. (24339)</p> |

|             |   |   |                                                                                                                                                                       |
|-------------|---|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             |   |   | 1/31/2017 – Employee slipped on ice while walking to the building. Fell on left knee and side. Taken to HPMC for evaluation and released without restriction. (24340) |
| Near Misses | 0 | 0 | N/A                                                                                                                                                                   |

## KEY ACCOMPLISHMENTS

### RL-0041 Accomplishments

- 100K AB Waste Site Area Remediation:
  - o Sampling and closure documentation development continues for the 18 chemical waste sites excavated near the head house in the AB Waste Site Area. A Remaining Sites Verification Package for waste sites 126-KE-2, 100-K-14 & 50 and 1607-K2 is currently scheduled to be provided to EPA for review in early March, with approval by the end of March. A Verification Sample Instruction (VSI) has been approved for waste sites 100-K-25, 27, 35, 79, 98, & 101; and 120-KE-1, 2, 3, 4, 5, 6 & 9. A waste site reclassification form documenting “Interim No Action” reclassification for the 100-K-105 waste site has been prepared and site closure approved by EPA (December 2016).
- 100K AF Waste Site Area Remediation:
  - o Excavation of the 100-K-103 waste site continues and is 80 percent complete. Current completion date has slipped due to weather delays to March 2, 2017.
- 105-K West Fuel Storage Basin Deactivation
  - o The draft long-range plan (LRP) for the deactivation and demolition of the K West Fuel Storage Basin (includes work breakdown structure, a preliminary schedule, and relative order of magnitude basis of estimate) was completed and presented to the RL Federal Project Director for funding consideration. RL has since authorized the purchase of a gamma spectrometer (gamma camera), which will be used for basin debris characterization. CHPRC cost estimating is reviewing the basis of estimate and the plan is to complete their review, resolve comments and upload the LRP to the CHPRC LRP file by March 1, 2017 (TPA-M-16-178 and TPA-M-16-181).
- Remaining Closure Operations (RCO):
  - o Resource Conservation and Recovery Act of 1976 (RCRA) Closure – CHPRC resolved Ecology’s comments on draft white paper, *1324-N Impoundment and 1324-NA Percolation Pond Groundwater Evaluation*, addressing total organics and sulfates for these dangerous waste management units. A second paper was finalized on sulfate sources on January 1, 2017.
  - o CHPRC and RL have prepared a draft white paper for dangerous waste management units 1301-N and 1325-N and have provided the draft to Ecology for review.
  - o Revegetation – No field work in January because of snow cover and frozen ground. Weekly walkdowns were conducted to re-evaluate site conditions to determine suitability for planting. Shrub planting remains for areas 100N-CTA and 100-N-83; and gravel removal, ripping, re-contouring, re-seeding and shrub planting remains for area 100D.

- Surveillance & Maintenance:
  - Radiation area remedial action (RARA) Manager has added the quarterly and annual surveillances to Central Plateau Surveillance and Maintenance (CPS&M) procedures and the surveillances have been scheduled as routine activities.
- 618-10 Burial Ground:
  - 120 drums shipped to Perma-Fix for offsite processing.
  - Set up for Mass Excavation.
  - PTS conducted scenario review group for 618-10 upcoming drill.
  - PTS completed the 618-10 Project Emergency Preparedness Hazards Analysis Yearly Review.
- 316-4 Waste Site:
  - Excavated 25,800 tons of stockpile soil.
  - Shipped 17 cans of contaminated soil to ERDF.
- 600-63 Waste Site:
  - Continued planning and design activities for engineering design and remaining engineering checklist items.
- 324 Building Min Safe:
  - Replaced motor on EP-973 fan (in scope corrective maintenance)
- 300-296 Soil Remediation Project:
  - A kick-off meeting, review of work packages, and the pre-job labor conference with the labor hall to install trailers south of the 324 and 325 Buildings was completed with DGR Grant. Six of the ten new project trailers have been delivered to Pac-Mobile and CHPRC has completed pre-delivery inspections. Initial placement of the project trailers south of the 325 Building is currently underway and expected to be completed within the month of February.
  - The annual update of the 324 Building safety basis (including incorporation of the soil spill accident comparison to waste spill) is in final routing for submittal to DOE-RL.
  - The preliminary hazard and accident analysis is being finalized to support the soil removal addendum planned for submission in August in accordance with the project plan.
  - MSA completed the Cultural Survey portion of the Cultural/Ecological Review of the mockup location on December 28, 2016. An additional survey is required to bring power onto the mockup site from the City of Richland power line that runs North of Horn Rapids Road. Due to inclement weather, the overall Cultural/Ecological Review is scheduled to be completed by March 9, 2017.
  - A City of Richland Permit Application was initiated for modifications required to support the mounting of Master Slave Manipulators and the pit for the Transfer Mechanism. Permit approval is anticipated on February 14, 2017.
  - Requests for Proposal (RFPs) for the Remote Excavation Arm System, Transfer Mechanism System, and the Lights and Cameras System for the mockup are on track to be issued in February 2017.
  - A contract was awarded to fabricate twelve prototype soil waste bins and two below the hook lifting devices to support mockup proof of concept and training activities at the Mockup Facility.
  - The fabrication of the floor saw frame is complete. Fit-up of the saw components (saw/motor, blade, water supply, power, motor control, etc.) and integration of the saw with the frame is in progress. The testing of the floor saw is planned to start in April.

- o Preparations for the concrete pad have been completed and the construction of the pad will begin during the week of January 30, 2017 and will continue through the end of February.
  - o An RFP for temporary hot spot shielding to support the airlock entry is expected to be issued the week of February 13, 2017.
  - o The pre-fab activities have completed for the Airlock Track and Cart System and fabrication of the system continues to progress as planned.
  - o Nuclear Chemical Operator training has been impacted by weather, however the project is systematically continuing training and qualifications and is expected to complete on track in February 2017 to support the planned initial airlock entry in March.
  - o Radiation Control Technicians (RCT) cycle training has been impacted by weather and it is expected that WESF will release five RCTs for transfer to the 300-296 project in March. The project is diligently progressing with training, and it will not impact the first airlock entry planned for March.
- Environmental Restoration Disposal Facility (ERDF):
    - o Receipt of 36,601 tons by CHPRC fiscal year to date (FYTD).
    - o Maintained a safety mindset and did not experience any injuries due to ice or snow.

## MAJOR ISSUES

### Issue:

On November 29, 2016, unexpected debris / contamination was discovered at the 316-4 Waste Site while crews were performing overburden removal. Additional contamination was discovered on January 4, 2017.

### Corrective Action:

- Evaluate impacts and implement mitigating actions.
- Assess current and future impacts of this discovery to schedule and cost and incorporate those impacts in Change Proposal TCoPD.

### Status:

- Investigation of extent of unforeseen contamination continues.
- Efforts are underway to quantify schedule and cost impacts.

## 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 spotlight chart:</b><br>No major changes to the monthly spotlight chart in the month of <b>January</b> . |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         |           |         |                                                                                    |                                 |          |                                                         |          |                                                                     |          |   |
| <b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         |           |         |                                                                                    |                                 |          |                                                         |          |                                                                     |          |   |
| RCC-316-4-09:<br>316-4 Discovery of Unexpected Waste                                                                                                            | 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.<br><br><b>Risk Handling Strategy:</b> Accept<br><br><b>Probability:</b> Very Low (<10%)<br><b>Worst Case Impacts:</b> \$240K, 48 day |    |    | <p><b>Risk Event:</b><br/>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. <b>On Wednesday January 4, 2017, additional contamination was discovered.</b></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>Send backfill stockpile to ERDF</td> <td rowspan="2">11/29/16</td> <td>03/31/17</td> <td>0</td> </tr> <tr> <td>Update Change Proposal to align with change in planning assumptions</td> <td>03/31/17</td> <td>0</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b><br/>CHPRC has realized cost and schedule impacts, resulting from this change in conditions. The impacts cannot be quantified until the extent of conditions and corrective actions are determined. CHPRC has and continues to perform all actions that may mitigate impacts; however, CHPRC reserves its right to an equitable adjustment. CHPRC plans to capture any scope and cost changes due to this discovery in the final TCoPD for the corresponding change proposal (CP 041 304 1600).</p>                                                                                                                                                      | Risk recovery action(s) | Risk Date | FC Date | %                                                                                  | Send backfill stockpile to ERDF | 11/29/16 | 03/31/17                                                | 0        | Update Change Proposal to align with change in planning assumptions | 03/31/17 | 0 |
| Risk recovery action(s)                                                                                                                                         | Risk Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | FC Date                                                                             | %                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         |           |         |                                                                                    |                                 |          |                                                         |          |                                                                     |          |   |
| Send backfill stockpile to ERDF                                                                                                                                 | 11/29/16                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 03/31/17                                                                            | 0                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         |           |         |                                                                                    |                                 |          |                                                         |          |                                                                     |          |   |
| Update Change Proposal to align with change in planning assumptions                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 03/31/17                                                                            | 0                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         |           |         |                                                                                    |                                 |          |                                                         |          |                                                                     |          |   |
| <b>Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)</b>                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         |           |         |                                                                                    |                                 |          |                                                         |          |                                                                     |          |   |
| RCC-300-296-03:<br>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.<br><b>Risk Handling Strategy:</b> Control<br><br><b>Probability:</b> Low (10% to 25%)<br><b>Worst Case Impacts:</b> \$86K, 80 days |  |  | <p><b>Risk Trigger Metric:</b><br/>Risk could be triggered through the conduct of component testing or testing/training performed at the mockup that produced inadequate or unexpected test results.</p> <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Conduct Concrete Floor Saw Test (cut rate, embedment cutting) and determine P.O.P.</td> <td>04/13/17</td> <td>0</td> </tr> <tr> <td>Perform Construction Acceptance Test at Mockup Facility</td> <td>10/31/17</td> <td>0</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b><br/>The Mockup is used primarily for 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. Requests for Information resulted in numerous responses for each system which have been used to support development of the associated Request for Proposal (RFP) packages. RFPs for the Remote Excavation Arm, Transfer Mechanism, and Lights and Cameras systems are on track for release in mid-February to support the acceleration of installation and testing at the mockup for early risk identification. The start of floor saw testing has also been accelerated to start in April 2017 to provide inputs to the Floor Saw System RFP that will be issued in Q3 FY17.</p> | Mitigation action(s)    | FC Date   | %       | Conduct Concrete Floor Saw Test (cut rate, embedment cutting) and determine P.O.P. | 04/13/17                        | 0        | Perform Construction Acceptance Test at Mockup Facility | 10/31/17 | 0                                                                   |          |   |
| Mitigation action(s)                                                                                                                                            | FC Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | %                                                                                   |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         |           |         |                                                                                    |                                 |          |                                                         |          |                                                                     |          |   |
| Conduct Concrete Floor Saw Test (cut rate, embedment cutting) and determine P.O.P.                                                                              | 04/13/17                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0                                                                                   |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         |           |         |                                                                                    |                                 |          |                                                         |          |                                                                     |          |   |
| Perform Construction Acceptance Test at Mockup Facility                                                                                                         | 10/31/17                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0                                                                                   |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         |           |         |                                                                                    |                                 |          |                                                         |          |                                                                     |          |   |

| <p>RCC-300-296-11:<br/>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<br/><b>Risk Handling Strategy:</b> Control<br/><br/><b>Probability:</b> Low (10% to 25%)<br/><b>Worst Case Impacts:</b> \$288K, 48 days</p>                                                             |    |    | <p><b>Risk Trigger Metric:</b><br/>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 DNFSB early concerning seismic design criteria</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b><br/>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.<br/>A recurring update process, on a bi-monthly basis, was proposed and accepted by the DNFSB representatives. The first update is planned for February 23, 2017. This early engagement with the DNFSB will minimize the probability that changes to the seismic code of record will be required.</p> | Mitigation action(s) | FC Date | % | Engage DNFSB early concerning seismic design criteria                                  | Ongoing | N/A |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------|---|----------------------------------------------------------------------------------------|---------|-----|
| Mitigation action(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | FC Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | %                                                                                   |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |         |   |                                                                                        |         |     |
| Engage DNFSB early concerning seismic design criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Ongoing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | N/A                                                                                 |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |         |   |                                                                                        |         |     |
| <p><b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |         |   |                                                                                        |         |     |
| <p><b>Lifecycle Risk Triggers</b> (Risk could be realized at any point of the project)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |         |   |                                                                                        |         |     |
| <p>RCC-618-10-07:<br/>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.<br/><b>Risk Handling Strategy:</b> Accept<br/><br/><b>Probability:</b> Low (10% to 25%)<br/><b>Worst Case Impacts:</b> \$1,288K, 64 days</p>                                                                                                                                                                                                    |    |    | <p><b>Risk Trigger Metric:</b><br/>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><br/>No changes in the month of January.<br/>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:<br/>Discovery of Unexpected Waste</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.<br/><b>Risk Handling Strategy:</b> Accept<br/><br/><b>Probability:</b> Very Low (&lt;10%)<br/><b>Worst Case Impacts:</b> \$640K, 64 days</p> |  |  | <p><b>Risk Trigger Metric:</b><br/>Risk has been triggered by discovery of more drums than planned.</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><br/>No changes in the month of January.<br/>The estimate for the remediation of the 618-10 waste site included an assumed amount of additional drums still to be remediated. The project has 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                                                                                 |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |         |   |                                                                                        |         |     |
| <p><b>Unassigned Risks</b> (Pending ownership of identified risks/opportunities)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |         |   |                                                                                        |         |     |
| <p>On August 29, 2016 letter CHPRC-1603852 "RL Acceptance of River Corridor Closure Contract Risks Outside CHPRC's Ability to Manage" was sent to RL, identifying three risks that CHPRC believed were outside of CHPRC ability to manage and therefore should be RL risks. RL responded on December 16, 2016 (17-AMRP-0045) stating that they would accept the risk for legacy contamination outside of the established SCA. However, the other risks for unexpected types of radiation and unforeseen site conditions were not accepted by RL. CHPRC central and project team members reviewed the two risks that were not accepted and determined that these risks are sufficiently captured in the current risk profile.</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |         |   |                                                                                        |         |     |

## PROJECT BASELINE PERFORMANCE

### Current Month

#### (\$M)

| WBS 041/RL-0041<br>Nuclear Facility<br>D&D – River<br>Corridor | Budgeted<br>Cost<br>of Work<br>Scheduled | Budgeted<br>Cost<br>of Work<br>Performed | Actual<br>Cost<br>of Work<br>Performed | Schedule<br>Variance<br>(\$) | Schedule<br>Variance<br>(%) | Cost<br>Variance<br>(\$) | Cost<br>Variance<br>(%) |
|----------------------------------------------------------------|------------------------------------------|------------------------------------------|----------------------------------------|------------------------------|-----------------------------|--------------------------|-------------------------|
| Total                                                          | 9.4                                      | 8.9                                      | 5.7                                    | (0.5)                        | -5.3%                       | 3.3                      | 36.5%                   |

Numbers are rounded to the nearest \$0.1 million

#### CM Schedule Performance (-\$0.5M/-5.3%)

The current month unfavorable schedule variance is primarily due to adverse weather conditions that resulted in site closures and snow cleanup activities across projects in RL-0041. This negative variance is offset by an overstatement of performance by ~\$500K in the 300-296 Project due to an error entering month end status. This error will be corrected in February.

#### CM Cost Performance (\$3.3M/36.5%)

The current month favorable cost variance is primarily because of resources not charging time due to site closures and delays. 100K Closure contributed a favorable \$1.1 million to the current month cost variance due to the correction of understated performance in December and the implementation of a BCR for a \$4 million Not to Exceed (NTE). 300-296 contributed ~\$500K to this favorable variance due to an error entering month end status. This error will be corrected in February.

## Contract-to-Date

### (\$M)

| WBS 041/<br>RL-0041<br>Nuclear Facility<br>D&D – River<br>Corridor | Budgeted<br>Cost<br>of Work<br>Scheduled | Budgeted<br>Cost<br>of Work<br>Performed | Actual<br>Cost<br>of Work<br>Performed | Schedule<br>Variance<br>(\$) | Schedule<br>Variance<br>(%) | Cost<br>Variance<br>(\$) | Cost<br>Variance<br>(%) | Budget at<br>Completion<br>(BAC) | Estimate at<br>Completion<br>(EAC) | Variance at<br>Completion<br>(VAC) |
|--------------------------------------------------------------------|------------------------------------------|------------------------------------------|----------------------------------------|------------------------------|-----------------------------|--------------------------|-------------------------|----------------------------------|------------------------------------|------------------------------------|
| Total                                                              | 381.9                                    | 388.1                                    | 349.7                                  | 6.1                          | 1.6%                        | 38.4                     | 9.9%                    | 536.5                            | 486.6                              | 49.9                               |

Numbers are rounded to the nearest \$0.1 million

#### CTD Schedule Performance (+\$6.1M/+1.6%)

The schedule variance is within reporting thresholds.

#### CTD Cost Performance (+\$38.4M/+9.9%)

The favorable cost variance is partially due to an unusual abundance of site closures and delays due to adverse weather conditions, resulting in less resources charging as usual. It is also 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. Low waste volumes at ERDF have created efficiencies in labor and materials, which also contributes to the favorable cost variance.

**Variance at Completion (+\$49.9M/+9.3%)**

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<br>Nuclear Facility<br>D&D – River Corridor | FY2017               |                      | Variance |
|-------------------------------------------------------------|----------------------|----------------------|----------|
|                                                             | Projected<br>Funding | Spending<br>Forecast |          |
| Spending Forecast                                           | 139.4                | 102.4                | 37.0     |
| Incremental Scope Pending<br>Change Management              | 0                    | 22.8                 | (22.8)   |
| RL-0041 - Total                                             | 139.4                | 125.2                | 14.2     |

Numbers are rounded to the nearest \$0.1 million.

**Funds/Variance Analysis:**

Fiscal year (FY) 2017 projected funding for PBS-0041 is \$139.4 million.

**Critical Path Schedule**

Critical Path Analysis can be provided upon request.

## MILESTONE STATUS

Tri-Party Agreement milestones represent significant events in project execution. DOE Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The 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-016-00A | Complete all response actions for 100 Areas Except GW in M-016-00 and 100 K addressed in M-016-00C | 3/31/2017 |             | 2/6/2017      | Ahead of Schedule |
| M-016-164 | Complete 100-N Interim Response Actions & Close 100-N Ancillary Facilities Area of Contamination   | 3/31/2017 |             | 2/22/2017     | Ahead of Schedule |

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

None currently identified.

## DOE ACTIONS / DECISIONS

None currently identified.

# Section G

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



**R. M. Geimer**  
Vice President for  
K Basin Operations and  
Plateau Remediation  
(KBO&PR)

January 2017  
CHPRC-2017-01, 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

- Finished development of the conceptual estimate (an input to the request for proposal) for the contractor installation of the P-16 pump replacement work.
- Started incorporating peer reviews into the engineering change request for the replacement P-16 pump system.
- Completed an ECR and ordered additional parts to change the wiring connections to the Q-38 and Q-43 heaters in tanks T-58 and T-87 in order to meet code requirements.
- Performed maintenance on the generator providing temporary power to the T-58 tank heater that unexpectedly failed. Generator was brought back into operation after the maintenance was completed.
- Completed peer review of the ECR to replace the FFTF contactor that is required to resolve maintenance issues with the 481 Building motor control centers.
- Developed MSA scope of work and obtained a cross-charge code for performing an ecological/cultural assessment of the area proposed for the new SOE trailer outside of the 418 building.

## MAJOR ISSUES

None currently identified.

## RISK MANAGEMENT STATUS

No key risks currently identified.

## PROJECT BASELINE PERFORMANCE

### Current Month

(\$M)

| RL-0042<br>FFTF Closure | Budgeted<br>Cost<br>of Work<br>Scheduled | Budgeted<br>Cost<br>of Work<br>Performed | Actual<br>Cost<br>of Work<br>Performed | Schedule<br>Variance<br>(\$) | Schedule<br>Variance<br>(%) | Cost<br>Variance<br>(\$) | Cost<br>Variance<br>(%) |
|-------------------------|------------------------------------------|------------------------------------------|----------------------------------------|------------------------------|-----------------------------|--------------------------|-------------------------|
| Total                   | 0.2                                      | 0.2                                      | 0.1                                    | (0.0)                        | -3.5%                       | 0.1                      | 44.3%                   |

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: (\$0.1M/44.3%)

The cost variance is within reporting thresholds.

## Contract-to-Date

(\$M)

| RL-0042<br>FFTF Closure | Budgeted<br>Cost of<br>Work<br>Scheduled | Budgeted<br>Cost of<br>Work<br>Performed | Actual<br>Cost of<br>Work<br>Performed | Schedule<br>Variance<br>(\$) | Schedule<br>Variance<br>(%) | Cost<br>Variance<br>(\$) | Cost<br>Variance<br>(%) | Budget at<br>Completion<br>(BAC) | Estimate at<br>Completion<br>(EAC) | Variance at<br>Completion<br>(VAC) |
|-------------------------|------------------------------------------|------------------------------------------|----------------------------------------|------------------------------|-----------------------------|--------------------------|-------------------------|----------------------------------|------------------------------------|------------------------------------|
| Total                   | 22.8                                     | 22.8                                     | 18.6                                   | (0.0)                        | -0.1%                       | 4.2                      | 18.3%                   | 26.5                             | 23.4                               | 3.0                                |

Numbers are rounded to the nearest \$0.1 million

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

The schedule variance is within reporting thresholds.

#### CTD Cost Performance (+\$4.2M/+18.3%)

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

#### Variance at Completion (+\$3.0M/+11.4%)

The Variance at Completion is within reporting thresholds.

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

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

| RL-0042<br>FFTF Closure                        | FY2017               |                      | Variance |
|------------------------------------------------|----------------------|----------------------|----------|
|                                                | Projected<br>Funding | Spending<br>Forecast |          |
| Spending Forecast                              | 3.9                  | 2.1                  | 1.7      |
| Incremental Scope Pending<br>Change Management | 0.0                  | 0.0                  | 0.0      |
| RL-0042 – Total                                | 3.9                  | 2.1                  | 1.7      |

Numbers are rounded to the nearest \$0.1 million

### Funds Analysis

Fiscal year (FY) 2017 projected funding for PBS RL-0042 is \$3.9 million. The EAC of \$2.1 million is in line with the FY17 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



January 2017  
CHPRC-2017-01, 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<br>CH2M HILL Plateau Remediation Company   |  | a. NAME<br>Plateau Remediation Contract |  | a. NAME<br>Plateau Remediation Contract                  |  | a. FROM (YYYYMMDD)<br>2016 / 12 / 26 |  |
| b. LOCATION (Address and ZIP Code)<br>Richland, WA |  | b. NUMBER<br>RL14788                    |  | b. PHASE                                                 |  | b. TO (YYYYMMDD)<br>2017 / 01 / 22   |  |
| c. TYPE<br>CPAF                                    |  | d. SHARE RATIO                          |  | c. EVMS ACCEPTANCE<br>NO X YES (YYYYMMDD) 2009 / 09 / 18 |  |                                      |  |

|                         |                                 |                                                          |                                 |                              |                                 |                                  |                                            |                               |
|-------------------------|---------------------------------|----------------------------------------------------------|---------------------------------|------------------------------|---------------------------------|----------------------------------|--------------------------------------------|-------------------------------|
| <b>5. CONTRACT DATA</b> |                                 |                                                          |                                 |                              |                                 |                                  |                                            |                               |
| a. QUANTITY<br>1        | b. NEGOTIATED COST<br>5,582,630 | c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK<br>152,012 | d. TARGET PROFIT/FEE<br>241,230 | e. TARGET PRICE<br>5,823,860 | f. ESTIMATED PRICE<br>5,815,706 | g. CONTRACT CEILING<br>5,823,860 | h. ESTIMATED CONTRACT CEILING<br>5,815,706 | 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)<br>Dickerson, Kala K |  |
| b. WORST CASE<br>5,615,137             |  | c. MOST LIKELY<br>5,734,475 |  | 160,166                                        |  | b. TITLE<br>Prime Contract Compliance Manager              |  |
| a. BEST CASE<br>5,505,655              |  |                             |  |                                                |  | c. SIGNATURE                                               |  |
|                                        |  |                             |  |                                                |  | d. DATE SIGNED (YYYYMMDD)                                  |  |

|                                                      |                    |                    |                            |              |          |                    |                    |                         |                            |           |                           |   |                     |                         |             |               |                |               |         |
|------------------------------------------------------|--------------------|--------------------|----------------------------|--------------|----------|--------------------|--------------------|-------------------------|----------------------------|-----------|---------------------------|---|---------------------|-------------------------|-------------|---------------|----------------|---------------|---------|
| <b>8. PERFORMANCE DATA</b>                           |                    |                    |                            |              |          |                    |                    |                         |                            |           |                           |   |                     |                         |             |               |                |               |         |
| Control Account.PBS                                  |                    |                    |                            |              |          |                    |                    |                         |                            |           |                           |   |                     |                         |             |               |                |               |         |
| ITEM (1)                                             | CURRENT PERIOD     |                    |                            |              |          | CUMULATIVE TO DATE |                    |                         |                            |           | REPROGRAMMING ADJUSTMENTS |   |                     | AT COMPLETION           |             |               |                |               |         |
|                                                      | BUDGETED COST      |                    | ACTUAL COST WORK PERFORMED |              | VARIANCE |                    | BUDGETED COST      |                         | ACTUAL COST WORK PERFORMED |           | VARIANCE                  |   | COST VARIANCE (12a) | SCHEDULE VARIANCE (12b) | BUDGET (13) | BUDGETED (14) | ESTIMATED (15) | VARIANCE (16) |         |
|                                                      | WORK SCHEDULED (2) | WORK PERFORMED (3) | COST WORK PERFORMED (4)    | SCHEDULE (5) | COST (6) | WORK SCHEDULED (7) | WORK PERFORMED (8) | COST WORK PERFORMED (9) | SCHEDULE (10)              | COST (11) |                           |   |                     |                         |             |               |                |               |         |
| RL-0011 Nuclear Mat Stab & Disp PFP                  | 2,016              | 2,747              | 7,179                      | 731          | -4,432   | 977,862            | 922,787            | 978,904                 | -55,076                    | -56,117   | 0                         | 0 | 0                   | 980,328                 | 1,052,623   | -72,295       |                |               |         |
| RL-0012 SNF Stabilization & Disp                     | 6,160              | 7,271              | 4,194                      | 1,111        | 3,077    | 646,730            | 650,529            | 619,878                 | 3,799                      | 30,651    | 0                         | 0 | 0                   | 740,046                 | 712,690     | 27,356        |                |               |         |
| RL-0013 Solid Waste Stab & Disp                      | 7,045              | 6,350              | 4,518                      | -695         | 1,832    | 1,119,984          | 1,120,392          | 1,048,657               | 407                        | 71,735    | 0                         | 0 | 0                   | 1,341,140               | 1,289,449   | 51,691        |                |               |         |
| RL-0030 Soil & Water Rem-Grndwtr/Vadose              | 10,964             | 7,857              | 6,090                      | -3,107       | 1,768    | 1,323,498          | 1,306,425          | 1,272,719               | -17,073                    | 33,706    | 0                         | 0 | 0                   | 1,565,252               | 1,493,048   | 72,205        |                |               |         |
| RL-0040 Nuc Fac D&D - Remainder Hanfrd               | 1,212              | 1,005              | 1,420                      | -207         | -415     | 431,100            | 426,674            | 396,313                 | -4,426                     | 30,361    | 0                         | 0 | 0                   | 473,909                 | 445,625     | 28,284        |                |               |         |
| RL-0041 Nuc Fac D&D - RC Closure Proj                | 9,447              | 8,943              | 5,681                      | -504         | 3,262    | 381,892            | 388,064            | 349,702                 | 6,172                      | 38,362    | 0                         | 0 | 0                   | 530,184                 | 480,294     | 49,890        |                |               |         |
| RL-0042 Nuc Fac D&D - FFFP Proj                      | 155                | 150                | 83                         | -5           | 66       | 22,781             | 22,760             | 18,585                  | -20                        | 4,176     | 0                         | 0 | 0                   | 26,455                  | 23,447      | 3,008         |                |               |         |
| 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                              |                    |                    |                            |              |          |                    |                    |                         |                            |           |                           |   |                     |                         |             | 8,463         | 8,463          | 0             |         |
| e. SUBTOTAL                                          | 37,000             | 34,323             | 29,166                     | -2,677       | 5,157    | 4,903,847          | 4,837,631          | 4,684,757               | -66,217                    | 152,873   | 0                         | 0 | 0                   | 5,665,777               | 5,505,638   | 160,139       |                |               |         |
| f. MANAGEMENT RESERVE                                |                    |                    |                            |              |          |                    |                    |                         |                            |           |                           |   |                     |                         |             | 68,821        |                |               |         |
| g. TOTAL                                             | 37,000             | 34,323             | 29,166                     | -2,677       | 5,157    | 4,903,847          | 4,837,631          | 4,684,757               | -66,217                    | 152,873   | 0                         | 0 | 0                   | 5,734,597               |             |               |                |               |         |
| <b>9. RECONCILIATION TO CONTRACT BUDGET BASELINE</b> |                    |                    |                            |              |          |                    |                    |                         |                            |           |                           |   |                     |                         |             |               |                |               |         |
| a. VARIANCE ADJUSTMENT                               |                    |                    |                            |              |          |                    |                    |                         |                            |           |                           |   |                     |                         |             |               |                |               |         |
| b. TOTAL CONTRACT VARIANCE                           |                    |                    |                            |              |          |                    |                    |                         |                            |           |                           |   |                     |                         |             |               |                |               |         |
|                                                      |                    |                    |                            |              |          |                    |                    |                         |                            |           |                           |   |                     |                         | -66,217     | 152,873       | 5,734,597      | 5,505,638     | 228,960 |

\* 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 defintized, BCRs will be processed to align the PMB with the defintized 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<br>CH2M HILL Plateau Remediation Company   |  | a. NAME<br>Plateau Remediation Contract |  | a. NAME<br>Plateau Remediation Contract                                           |  | a. FROM (YYYYMMDD)<br><br>2016 / 12 / 26 |  |
| b. LOCATION (Address and ZIP Code)<br>Richland, WA |  | b. NUMBER<br>RL14788                    |  | b. PHASE                                                                          |  | b. TO (YYYYMMDD)<br><br>2017 / 01 / 22   |  |
| c. TYPE<br>CPAF                                    |  | d. SHARE RATIO                          |  | c. EVMS ACCEPTANCE<br>NO <input type="checkbox"/> X YES (YYYYMMDD) 2009 / 09 / 18 |  |                                          |  |

| WBS.Resp Org Group                              | CURRENT PERIOD     |                    |                         |              |          |                    | CUMULATIVE TO DATE |                         |               |           |                     | REPROGRAMMING           |             |           | AT COMPLETION |          |  |
|-------------------------------------------------|--------------------|--------------------|-------------------------|--------------|----------|--------------------|--------------------|-------------------------|---------------|-----------|---------------------|-------------------------|-------------|-----------|---------------|----------|--|
|                                                 | BUDGETED COST      |                    | ACTUAL                  | VARIANCE     |          | BUDGETED COST      |                    | ACTUAL                  | VARIANCE      |           | ADJUSTMENTS         |                         |             | BUDGETED  | ESTIMATED     | VARIANCE |  |
|                                                 | WORK SCHEDULED (2) | WORK PERFORMED (3) | COST WORK PERFORMED (4) | SCHEDULE (5) | COST (6) | WORK SCHEDULED (7) | WORK PERFORMED (8) | COST WORK PERFORMED (9) | SCHEDULE (10) | COST (11) | COST VARIANCE (12a) | SCHEDULE VARIANCE (12b) | BUDGET (13) | (14)      | (15)          | (16)     |  |
| 34 - Env Program & Strategic PIng               | 799                | 735                | 553                     | -65          | 182      | 67,692             | 67,413             | 62,606                  | -278          | 4,808     | 0                   | 0                       | 0           | 82,843    | 80,528        | 2,315    |  |
| 35 - Business Services                          | 0                  | 0                  | 0                       | 0            | 0        | 472,524            | 472,524            | 448,542                 | 0             | 23,982    | 0                   | 0                       | 0           | 472,524   | 448,542       | 23,982   |  |
| 36 - Prime Contract & Proj Integr               | 130                | 130                | 72                      | 0            | 58       | 5,619              | 5,619              | 3,062                   | 0             | 2,557     | 0                   | 0                       | 0           | 8,414     | 5,561         | 2,853    |  |
| 3B - PFP Closure Project                        | 2,016              | 2,747              | 7,171                   | 731          | -4,424   | 890,603            | 835,528            | 899,493                 | -55,076       | -63,965   | 0                   | 0                       | 0           | 893,069   | 973,142       | -80,072  |  |
| 3C - Waste & Fuels Management Project           | 7,518              | 6,785              | 5,012                   | -733         | 1,773    | 1,017,574          | 1,017,849          | 945,583                 | 275           | 72,266    | 0                   | 0                       | 0           | 1,252,543 | 1,198,422     | 54,121   |  |
| 3D - Soil & Groundwater Remediation             | 10,121             | 7,079              | 5,516                   | -3,042       | 1,563    | 1,156,025          | 1,139,231          | 1,104,146               | -16,795       | 35,085    | 0                   | 0                       | 0           | 1,381,624 | 1,305,661     | 75,963   |  |
| 3G - K Basin Oper & Plateau Remediation Project | 11,055             | 12,057             | 7,141                   | 1,002        | 4,916    | 1,266,012          | 1,273,232          | 1,196,798               | 7,220         | 76,434    | 0                   | 0                       | 0           | 1,475,693 | 1,398,037     | 77,656   |  |
| 3H - 618-10 and ERDF                            | 5,361              | 4,791              | 3,701                   | -571         | 1,090    | 27,798             | 26,235             | 24,528                  | -1,563        | 1,706     | 0                   | 0                       | 0           | 90,603    | 87,299        | 3,304    |  |
| 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                         |                    |                    |                         |              |          |                    |                    |                         |               |           |                     |                         |             | 8,463     | 8,463         | 0        |  |
| e. SUBTOTAL (Performance Measurement Baseline)  | 37,000             | 34,323             | 29,166                  | -2,677       | 5,157    | 4,903,847          | 4,837,631          | 4,684,757               | -66,217       | 152,873   | 0                   | 0                       | 0           | 5,665,777 | 5,505,655     | 160,122  |  |
| f. MANAGEMENT RESERVE                           |                    |                    |                         |              |          |                    |                    |                         |               |           |                     |                         |             | 68,821    |               |          |  |
| g. TOTAL                                        | 37,000             | 34,323             | 29,166                  | -2,677       | 5,157    | 4,903,847          | 4,837,631          | 4,684,757               | -66,217       | 152,873   | 0                   | 0                       | 0           | 5,734,597 |               |          |  |

\* 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                 |                             |                         |        |        |        |        |        |           |         |         |         |         |         |        |           |
|----------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------|---------------------|---------------------------------------------------|---------------------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------------------|--------------|------------------------------------------|--------------|-------------------------------|-----------------------------|-------------------------|--------|--------|--------|--------|--------|-----------|---------|---------|---------|---------|---------|--------|-----------|
| FORMAT 3 - BASELINE                                                                                            |                                  |                                        |                     |                                                                                                                |                     |                                                   |                     |                                                                                                             |                                                     |                                                |              |                                          |              | OMB No. 0704-0188             |                             |                         |        |        |        |        |        |           |         |         |         |         |         |        |           |
| DOLLARS IN THOUSANDS                                                                                           |                                  |                                        |                     |                                                                                                                |                     |                                                   |                     |                                                                                                             |                                                     |                                                |              |                                          |              | 4. REPORT PERIOD              |                             |                         |        |        |        |        |        |           |         |         |         |         |         |        |           |
| 1. CONTRACTOR<br>CH2M HILL Plateau Remediation Company                                                         |                                  |                                        |                     | 2. CONTRACT<br>a. NAME: Plateau Remediation Contract<br>b. NUMBER: RL14788<br>c. TYPE: CPAF<br>d. SHARE RATIO: |                     |                                                   |                     | 3. PROGRAM<br>a. NAME: Plateau Remediation Contract<br>b. PHASE<br>c. EVMS ACCEPTANCE<br>NO YES X 9/18/2009 |                                                     |                                                |              | a. FROM: 2016/12/26<br>b. TO: 2016/01/22 |              |                               |                             |                         |        |        |        |        |        |           |         |         |         |         |         |        |           |
| 5. CONTRACT DATA                                                                                               |                                  |                                        |                     |                                                                                                                |                     |                                                   |                     |                                                                                                             |                                                     |                                                |              |                                          |              |                               |                             |                         |        |        |        |        |        |           |         |         |         |         |         |        |           |
| a. ORIGINAL NEGOTIATED COST<br>4,312,366                                                                       |                                  |                                        |                     | b. NEGOTIATED CONTRACT CHANGE<br>\$1,270,263                                                                   |                     | c. CURRENT NEGOTIATED COST (A + B)<br>\$5,582,630 |                     | d. ESTIMATED COST AUTH UNPRICED WORK<br>\$152,012                                                           |                                                     | e. CONTRACT BUDGET BASE (C + D)<br>\$5,734,642 |              | f. TOTAL ALLOCATED BUDGET<br>\$5,734,597 |              | g. DIFFERENCE (E - F)<br>\$44 |                             |                         |        |        |        |        |        |           |         |         |         |         |         |        |           |
| h. CONTRACT START DATE<br>6/19/2008                                                                            |                                  |                                        |                     | i. DEFINITIZATION DATE<br>6/19/2008                                                                            |                     | j. PLANNED COMPL DATE<br>9/30/2018                |                     | k. CONT COMPLETION DATE<br>9/30/2018                                                                        |                                                     |                                                |              | l. EST COMPLETION DATE<br>9/30/2018      |              |                               |                             |                         |        |        |        |        |        |           |         |         |         |         |         |        |           |
| 6. PERFORMANCE DATA                                                                                            |                                  |                                        |                     |                                                                                                                |                     |                                                   |                     |                                                                                                             |                                                     |                                                |              |                                          |              |                               |                             |                         |        |        |        |        |        |           |         |         |         |         |         |        |           |
| (1)                                                                                                            | BCWS<br>CUM<br>TO<br>DATE<br>(2) | BCWS<br>FOR<br>REPORT<br>PERIOD<br>(3) | SIX MONTH FORECAST  |                                                                                                                |                     |                                                   |                     |                                                                                                             | BUDGETED COST FOR WORK SCHEDULED (NON - CUMULATIVE) |                                                |              |                                          |              |                               | UNDISTRIB<br>BUDGET<br>(16) | TOTAL<br>BUDGET<br>(17) |        |        |        |        |        |           |         |         |         |         |         |        |           |
|                                                                                                                |                                  |                                        | +1<br>Feb-17<br>(4) | +2<br>Mar-17<br>(5)                                                                                            | +3<br>Apr-17<br>(6) | +4<br>May-17<br>(7)                               | +5<br>Jun-17<br>(8) | +6<br>Jul-17<br>(9)                                                                                         | FY09-13<br>(10)                                     | FY14<br>(11)                                   | FY15<br>(12) | FY16<br>(13)                             | FY17<br>(14) | FY18<br>(15)                  |                             |                         |        |        |        |        |        |           |         |         |         |         |         |        |           |
|                                                                                                                |                                  |                                        |                     |                                                                                                                |                     |                                                   |                     |                                                                                                             |                                                     |                                                |              |                                          |              |                               |                             |                         |        |        |        |        |        |           |         |         |         |         |         |        |           |
| a. PM BASELINE (BEGIN OF PERIOD)                                                                               |                                  |                                        |                     |                                                                                                                |                     |                                                   |                     |                                                                                                             |                                                     |                                                |              |                                          |              | 4,866,847                     | 36,304                      | 38,984                  | 43,875 | 37,771 | 36,563 | 42,306 | 30,728 | 3,391,477 | 391,653 | 471,323 | 504,826 | 451,014 | 441,447 | 14,049 | 5,665,788 |
| b. BASELINE CHANGES AUTH DURING REPORT PERIOD                                                                  |                                  |                                        |                     |                                                                                                                |                     |                                                   |                     |                                                                                                             |                                                     |                                                |              |                                          |              |                               |                             |                         |        |        |        |        |        |           |         |         |         |         |         |        |           |
| BCR-012C-17-004R0 - RL-012 Schedule Health Updates                                                             |                                  |                                        |                     |                                                                                                                |                     |                                                   |                     |                                                                                                             |                                                     |                                                |              |                                          |              |                               |                             |                         |        |        |        |        |        |           |         |         |         |         |         |        |           |
| BCR-013-17-002R0 RL13 Implementation of Schedule Health Modifications to IMS                                   |                                  |                                        |                     |                                                                                                                |                     |                                                   |                     |                                                                                                             |                                                     |                                                |              |                                          |              |                               |                             |                         |        |        |        |        |        |           |         |         |         |         |         |        |           |
| BCR-040-17-001R0, Incorporate CO #309, Additional Assessment of PUREX Tunnels 1 & 2                            |                                  |                                        |                     |                                                                                                                |                     |                                                   |                     |                                                                                                             |                                                     |                                                |              |                                          |              |                               |                             |                         |        |        |        |        |        |           |         |         |         |         |         |        |           |
| BCR-040-17-002R0, Incorporate CO #311, Increase for Perform REDOX Roof Replacement                             |                                  |                                        |                     |                                                                                                                |                     |                                                   |                     |                                                                                                             |                                                     |                                                |              |                                          |              |                               |                             |                         |        |        |        |        |        |           |         |         |         |         |         |        |           |
| BCR-040-17-003R0, Convert Planning Package to Work Packages for B Plant Ancillary Buildings                    |                                  |                                        |                     |                                                                                                                |                     |                                                   |                     |                                                                                                             |                                                     |                                                |              |                                          |              |                               |                             |                         |        |        |        |        |        |           |         |         |         |         |         |        |           |
| BCR-040-17-004R0, Incorporate CO #311, Increase for Initiate Canyon & Central Plateau Risk Reduction Documents |                                  |                                        |                     |                                                                                                                |                     |                                                   |                     |                                                                                                             |                                                     |                                                |              |                                          |              |                               |                             |                         |        |        |        |        |        |           |         |         |         |         |         |        |           |
| BCR-040-17-005R0, Add TPA Milestone 255                                                                        |                                  |                                        |                     |                                                                                                                |                     |                                                   |                     |                                                                                                             |                                                     |                                                |              |                                          |              |                               |                             |                         |        |        |        |        |        |           |         |         |         |         |         |        |           |
| BCR-040-17-006R0, Add TPA Milestones 250B and 250C                                                             |                                  |                                        |                     |                                                                                                                |                     |                                                   |                     |                                                                                                             |                                                     |                                                |              |                                          |              |                               |                             |                         |        |        |        |        |        |           |         |         |         |         |         |        |           |
| BCR-041-17-006R0, Incorporate CO#307 and NTE Increase for 100-K Waste Sites                                    |                                  |                                        |                     |                                                                                                                |                     |                                                   |                     |                                                                                                             |                                                     |                                                |              |                                          |              |                               |                             |                         |        |        |        |        |        |           |         |         |         |         |         |        |           |
| BCRA-PRC-17-014R0, HPIC Updates January 2017                                                                   |                                  |                                        |                     |                                                                                                                |                     |                                                   |                     |                                                                                                             |                                                     |                                                |              |                                          |              |                               |                             |                         |        |        |        |        |        |           |         |         |         |         |         |        |           |
| BCR-PRC-17-013R0, Undistributed Budget Adjustments January 2017                                                |                                  |                                        |                     |                                                                                                                |                     |                                                   |                     |                                                                                                             |                                                     |                                                |              |                                          |              |                               |                             |                         |        |        |        |        |        |           |         |         |         |         |         |        |           |
| c. PM BASELINE (END OF PERIOD)                                                                                 |                                  |                                        |                     |                                                                                                                |                     |                                                   |                     |                                                                                                             |                                                     |                                                |              |                                          |              | 4,903,847                     | 37,000                      | 40,444                  | 45,618 | 39,066 | 37,149 | 42,308 | 30,728 | 3,391,477 | 391,653 | 471,323 | 504,826 | 456,588 | 441,448 | 8,463  | 5,665,776 |
| 7. MANAGEMENT RESERVE                                                                                          |                                  |                                        |                     |                                                                                                                |                     |                                                   |                     |                                                                                                             |                                                     |                                                |              |                                          |              |                               |                             |                         |        |        |        |        |        |           |         |         |         |         |         |        | 68,821    |
| 8. TOTAL                                                                                                       |                                  |                                        |                     |                                                                                                                |                     |                                                   |                     |                                                                                                             |                                                     |                                                |              |                                          |              |                               |                             |                         |        |        |        |        |        |           |         |         |         |         |         |        | 5,734,597 |

\* 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**

Dollars in: FTE

|                         |
|-------------------------|
| <b>FORM APPROVED</b>    |
| OMB No. 0704-0188       |
| <b>4. REPORT PERIOD</b> |
| a. FROM (YYYYMMDD)      |
| 2016 / 12 / 26          |
| b. TO (YYYYMMDD)        |
| 2017 / 01 / 22          |

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

| WBS.Resp Org Group<br><br>ORGANIZATIONAL<br>CATEGORY<br>(1) | ACTUAL<br>CURRENT<br>PERIOD<br>(2) | ACTUAL<br>END OF<br>CURRENT PERIOD<br>(Cumulative)<br>(3) | FORECAST (Non-Cumulative)                           |                       |                       |                       |                       |                        |                         |              |                 | AT<br>COMPLETION<br>(15) |      |
|-------------------------------------------------------------|------------------------------------|-----------------------------------------------------------|-----------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|-------------------------|--------------|-----------------|--------------------------|------|
|                                                             |                                    |                                                           | SIX MONTH FORECAST BY MONTH (Enter names of months) |                       |                       |                       |                       |                        | ENTER SPECIFIED PERIODS |              |                 |                          |      |
|                                                             |                                    |                                                           | +1<br>FEB 2017<br>(4)                               | +2<br>MAR 2017<br>(5) | +3<br>APR 2017<br>(6) | +4<br>MAY 2017<br>(7) | +5<br>JUN 2017<br>(8) | +6<br>JULY 2017<br>(9) | REMAIN FY17<br>(10)     | FY18<br>(11) | FY19-LC<br>(12) |                          |      |
|                                                             |                                    |                                                           | 300 - Office of the President                       | 4                     | 673                   | 5                     | 5                     | 5                      | 5                       | 5            | 5               |                          | 5    |
| 303 - Internal Audit                                        | 1                                  | 434                                                       | 5                                                   | 5                     | 5                     | 5                     | 5                     | 5                      | 5                       | 10           | 60              | 0                        | 534  |
| 304 - General Counsel                                       | 2                                  | 408                                                       | 5                                                   | 5                     | 5                     | 5                     | 5                     | 5                      | 5                       | 10           | 60              | 0                        | 508  |
| 31 - Communications                                         | 6                                  | 949                                                       | 10                                                  | 10                    | 10                    | 10                    | 10                    | 10                     | 10                      | 19           | 108             | 0                        | 1134 |
| 32 - Safety Health Security & Quality                       | 37                                 | 6730                                                      | 67                                                  | 67                    | 67                    | 67                    | 67                    | 67                     | 67                      | 130          | 785             | 0                        | 8047 |
| 34 - Env Program & Strategic Plng                           | 27                                 | 4478                                                      | 49                                                  | 49                    | 51                    | 49                    | 48                    | 48                     | 48                      | 93           | 603             | 0                        | 5468 |
| 35 - Business Services                                      | 45                                 | 7159                                                      | 74                                                  | 74                    | 74                    | 74                    | 74                    | 74                     | 74                      | 145          | 772             | 0                        | 8520 |
| 36 - Prime Contract & Proj Integr                           | 41                                 | 4511                                                      | 67                                                  | 67                    | 67                    | 67                    | 66                    | 66                     | 66                      | 129          | 701             | 0                        | 5741 |
| 38 - Project Technical Services                             | 19                                 | 5308                                                      | 39                                                  | 39                    | 39                    | 39                    | 39                    | 39                     | 39                      | 75           | 426             | 0                        | 6045 |
| 3B - PFP Closure Project                                    | 226                                | 46719                                                     | 386                                                 | 403                   | 380                   | 256                   | 197                   | 171                    | 251                     | 100          | 0               | 48864                    |      |
| 3C - Waste & Fuels Management Project                       | 238                                | 47202                                                     | 343                                                 | 339                   | 350                   | 332                   | 339                   | 332                    | 633                     | 4233         | 694             | 54798                    |      |
| 3D - Soil & Groundwater Remediation                         | 184                                | 33742                                                     | 282                                                 | 284                   | 283                   | 285                   | 281                   | 272                    | 535                     | 3460         | 780             | 40205                    |      |
| 3G - K Basin Oper & Plateau Remediation Project             | 252                                | 44718                                                     | 407                                                 | 387                   | 393                   | 333                   | 340                   | 326                    | 659                     | 3813         | 207             | 51583                    |      |
| 3H - 618-10 and ERDF                                        | 37                                 | 261                                                       | 175                                                 | 168                   | 164                   | 153                   | 149                   | 153                    | 251                     | 273          | 0               | 1747                     |      |
| <b>g. TOTAL DIRECT</b>                                      | <b>1118</b>                        | <b>203294</b>                                             | <b>1914</b>                                         | <b>1904</b>           | <b>1893</b>           | <b>1680</b>           | <b>1625</b>           | <b>1572</b>            | <b>2949</b>             | <b>15457</b> | <b>1681</b>     | <b>233971</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<br>FORMAT 5 - EXPLANATIONS AND PROBLEM ANALYSES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |             |                                                |                       |                         |                                                     |                                             | FORM APPROVED<br>OMB No. 0704-0188            |            |            |
| <b>1. CONTRACTOR</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             | <b>2. CONTRACT</b>                             |                       |                         | <b>3. PROGRAM</b>                                   |                                             | <b>4. REPORT PERIOD</b>                       |            |            |
| <b>a. NAME</b><br>CH2M HILL<br>Plateau Remediation Company                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |             | <b>a. NAME</b><br>Plateau Remediation Contract |                       |                         | <b>a. NAME</b><br>Plateau Remediation Contract      |                                             | <b>a. FROM (YYYY/MM/DD)</b><br><br>2016/12/26 |            |            |
| <b>b. LOCATION (Address and ZIP Code)</b><br><br>Richland, WA 99354                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             | <b>b. NUMBER</b><br>DE-AC06-08RL14788          |                       | <b>b. PHASE</b><br>Base |                                                     | <b>b. TO (YYYY/MM/DD)</b><br><br>2017/01/22 |                                               |            |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             | <b>c. TYPE</b><br>CPAF                         | <b>d. SHARE RATIO</b> |                         | <b>c. EVMS ACCEPTANCE</b><br>2009/09/18<br>NO YES X |                                             |                                               |            |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>BCWS</b> | <b>BCWP</b>                                    | <b>ACWP</b>           | <b>SV in \$</b>         | <b>SV in %</b>                                      | <b>CV in \$</b>                             | <b>CV %</b>                                   | <b>SPI</b> | <b>CPI</b> |
| <b>Current:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 37,000      | 34,323                                         | 29,166                | (2,677)                 | -7.2%                                               | 5,158                                       | 15.0%                                         | 0.93       | 1.18       |
| <b>Cumulative:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 4,903,847   | 4,837,631                                      | 4,684,757             | (66,217)                | -1.4%                                               | 152,873                                     | 3.2%                                          | 0.99       | 1.03       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | BAC         | EAC                                            | VAC in \$             | VAC in %                | TCPI                                                |                                             |                                               |            |            |
| <b>At Complete:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 5,665,777   | 5,505,638                                      | 160,139               | 2.8%                    | 1.01                                                |                                             |                                               |            |            |
| <b>Explanation of Variance/Description of Problem:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |                                                |                       |                         |                                                     |                                             |                                               |            |            |
| <b>Current Period Schedule Variance:</b> The current month negative schedule variance is primarily due to PBS RL-0030 delay of the 100-NR-2 Barrier maintenance and expansion activities, caused by funding limitations and pending resolution of cultural clearance items. Also contributing is the preparation of the 200-OA-1 RI/FS work plan being deferred to FY2018 to align with the priority list and available funding. This is partially offset by PBS RL-0012 accelerating the field schedule by working overtime in order to achieve sludge retrievals by 2018 and work has started earlier than planned on Procurement Set 9 – fabrication of the fill tube and float assemblies for STSCs 14 through 24.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |                                                |                       |                         |                                                     |                                             |                                               |            |            |
| <b>Current Period Cost Variance:</b> The current month positive cost variance is primary due to PBS RL-0012 awarding fabrication of STSC vessels 14-24, and equipment installation performed at a lower cost as Firm Fix Price contracts were awarded at a lower planned cost with minimal design changes to date. Also contributing to the current month positive cost variance is PBS RL-0041 unusual abundance of site closures and delays due to adverse weather conditions, resulting in less resources charging as usual. Completing Confirmatory Sampling No Action (CSNA) waste sites early and under cost. Low waste volumes at ERDF have created efficiencies in labor and materials. The variance is partially offset 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 Min Safe, Maintenance, and D&D project management resources. Also, the unusually cold/snowy winter resulting in work delays or cancellations, have delayed the progress on discrete D&D work scope (apportioned) and increased costs in fleet maintenance and consumable materials such as PPE. 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. |             |                                                |                       |                         |                                                     |                                             |                                               |            |            |
| <b>Cumulative Schedule Variance:</b> The variance is within reporting thresholds.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |                                                |                       |                         |                                                     |                                             |                                               |            |            |
| <b>Cumulative Cost Variance:</b> The variance is within reporting thresholds.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |                                                |                       |                         |                                                     |                                             |                                               |            |            |
| <b>Impact:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |                                                |                       |                         |                                                     |                                             |                                               |            |            |
| <b>Current Period Schedule:</b> The lifecycle EAC has been updated. No significant impact overall.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |                                                |                       |                         |                                                     |                                             |                                               |            |            |
| <b>Current Period Cost:</b> PBS RL-0011 had unexpected impacts (additional E4 and process vacuum set-up, asbestos interferences), which has impacted the ability to finish the project within the planned budget.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |                                                |                       |                         |                                                     |                                             |                                               |            |            |
| <b>Cumulative Schedule:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |                                                |                       |                         |                                                     |                                             |                                               |            |            |
| <b>Cumulative Cost:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |             |                                                |                       |                         |                                                     |                                             |                                               |            |            |
| <b>Corrective Action:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |                                                |                       |                         |                                                     |                                             |                                               |            |            |
| <b>Current Period Schedule:</b> No Corrective actions, the EAC has been adjusted accordingly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |                                                |                       |                         |                                                     |                                             |                                               |            |            |
| <b>Current Period Cost:</b> 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 Mike Douglas due 6/30/17.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |             |                                                |                       |                         |                                                     |                                             |                                               |            |            |
| <b>Cumulative Schedule:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |                                                |                       |                         |                                                     |                                             |                                               |            |            |
| <b>Cumulative Cost:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |             |                                                |                       |                         |                                                     |                                             |                                               |            |            |
| <b>Monthly Summary (to include technical causes of VARs, Impacts, and Corrective Action(s):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |                                                |                       |                         |                                                     |                                             |                                               |            |            |
| CHPRC continues to track completion of contract scope within budget and is currently projecting a Variance at Completion of \$160.1 million with \$68.8 million of Management Reserve (MR) for a total positive variance of \$228.9 million. For January, the project was 7.2 percent behind schedule and 15.0 percent under planned cost. Contract to Date (CTD), the project was 1.4 percent behind schedule and 3.2 percent under planned cost.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |                                                |                       |                         |                                                     |                                             |                                               |            |            |
| There were five significant BCRs in the period that impacted the PMB; BCR-040-17-001R0 – <i>Incorporate CO #309, Additional Assessment of PUREX Tunnels 1 &amp; 2</i> , BCR-040-17-002R0 – <i>Incorporate CO #311, Increase for Perform REDOX Roof Replacement</i> ; BCR-040-17-004R0 – <i>Incorporate CO #311, Increase for Initiate Canyon &amp; Central Plateau Risk Reduction Documents</i> , BCR-041-17-006R0 – <i>Incorporate CO #307 and NTE increase for 100-K Waste Sites</i> ; BCR-PRC-17-013R0 – <i>Undistributed Budget Adjustments January 2016</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |                                                |                       |                         |                                                     |                                             |                                               |            |            |

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

|                                                                                                                                                                          |                                |                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------|
| <b>Contractually Required Cost, Schedule, EAC variance, Management Reserve Use</b>                                                                                       |                                |                  |
| Variance in Performance BAC and EAC: The variance at complete (VAC) between the BAC and EAC this month is a + \$160.1 million, +2.8% and is within reporting thresholds. |                                |                  |
| <b>Format 1 and 3 Contract Data:</b>                                                                                                                                     |                                |                  |
| <b>Contract Price Adjustments</b>                                                                                                                                        |                                |                  |
| CPS - In Process                                                                                                                                                         |                                |                  |
|                                                                                                                                                                          | Total Authorized Unpriced Work | \$152,011        |
| Approved Adjustments to Contract Price (not reflected in B.4-1 Table)                                                                                                    |                                |                  |
|                                                                                                                                                                          | Total Negotiated Cost Changes  | -                |
| <b>Grand Total Adjustments</b>                                                                                                                                           |                                | <b>\$152,011</b> |

| <b>Use of Undistributed Budget (UB), Management Reserve (MR), and Fee Activity:</b> |                                                      |                                 |             |           |
|-------------------------------------------------------------------------------------|------------------------------------------------------|---------------------------------|-------------|-----------|
| <b>Undistributed Budget Activity</b>                                                |                                                      |                                 |             |           |
| BCR Number                                                                          | Title                                                | PBS                             | Fiscal Year | UB        |
| BCR-PRC-17-013R0                                                                    | <i>Undistributed Budget Adjustments January 2017</i> | RL-0030,<br>RL-0040,<br>RL-0041 | 2017-2018   | \$-5,586K |
| The Undistributed Budget decreased by \$5,586K.                                     |                                                      |                                 |             |           |
| <b>Management Reserve Activity</b>                                                  |                                                      |                                 |             |           |
| BCR Number                                                                          | Title                                                | PBS                             | Fiscal Year | MR        |
| N/A                                                                                 | N/A                                                  | N/A                             | 2017 - 2018 | N/A       |
| Overall, there was no change in Management Reserve (MR) during January.             |                                                      |                                 |             |           |
| <b>Fee Activity</b>                                                                 |                                                      |                                 |             |           |
| BCR Number                                                                          | Title                                                | PBS                             | Fiscal Year | Fee       |
| N/A                                                                                 | N/A                                                  | N/A                             | 2017 - 2018 | N/A       |
| Overall, there was no change to Fee during January.                                 |                                                      |                                 |             |           |

**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><br>Project Control Staff | <b>Date:</b><br>2/22/2017 | <b>Approved by:</b> | <b>Date:</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.

# 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

January 2017  
CHPRC-2017-01, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

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

D. A. Millikin  
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  | 0%     |
| 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 web site.                                                                                                                   | 10/9/17* | 0%     |
| 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  | 32%    |
| 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  | 32%    |

\*This O&T is a continuation of a FY16 O&T. They are starting FY17 with 45% complete.

## TARGET ZERO PERFORMANCE

|                                            | Current Month | Rolling<br>12 Month | Comment |
|--------------------------------------------|---------------|---------------------|---------|
| Days Away,<br>Restricted or<br>Transferred | 0             | 0                   | N/A     |
| Total<br>Recordable<br>Injuries            | 0             | 2                   | N/A     |
| First Aid<br>Cases                         | 0             | 6                   | N/A     |
| Near-Misses                                | 0             | 0                   | N/A     |

## KEY ACCOMPLISHMENTS

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

- There were no first aid cases during the month of January in the functional groups.
  - o Occupational Safety and Industrial Hygiene (OS&IH) accomplishments:
    - Completion of DOE-HQ VPP Onsite Review to retain VPP STAR status until end of contract.
    - Published Interim Fall Protection Program Management Directive.
    - Endorsed and transitioned to the Mission Support Alliance (MSA) Scaffold Procedure.
  - o Radiological Control accomplishments:
    - Completed annual dosimetry change out.
    - Completed As Low As Reasonable Achievable (ALARA) Assessment.
    - Completed efforts to clarify dosimetry operation procedures.
    - Provided radiological work planning assistance to Waste and Fuels Project.
    - Completed reviews and approved the Fast Flux Test Facility Technical Evaluation (TE) for Characterization and Sludge Treatment/100K TE.
    - Continuing an assessment of the Radioactive Material Area program.
    - Revised PRC-PRO-RP-40029, *Required Radiological Surveillances*, to address a weakness in program associated with inclement weather.
  - o Nuclear Operations Support & Compliance accomplishments:
    - Correspondence sent to Department Of Energy Richland Operations Office (RL):
      - Letter, CHPRC-1700160, dated January 16, 2017, *Request for Approval of the One-Time Request for Shipment for Sludge Transport from K West Basin to T Plant, CHPRC-03111, Revision 0.*
    - Correspondence received from RL:
      - Letter, 17-NSD-0006\_RL, dated January 3, 2017, *Rejection of “105KW Facility Documented Safety Analysis,” PRC-STP-00946, Revision 0, ‘105KW Facility Technical Safety Requirements,’ PRC-STP-00946, Revision 0, and Comments on ‘Fire Hazards Analysis for the 105KW Facility,’ HNF-SD-SNF-FHA-001,” Revision 4.*
      - Proposal, 1605819.1A, dated January 30, 2017, *Contract Mod 571 Issue Change Order 323 Management of the Hanford Sitewide Transportation Safety Document.*

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- Other:
  - Completed SHS&Q-2017-MA-16479, *Management Assessment for the Transportation Safety Document (TSD) Implementation of Sections 8.0, “Routine Transfers,” and 9.0, “Nonroutine Transfers.”*
  - Completed the Plutonium Finishing Plant (PFP) annual Technical Safety Requirement (TSR) Surveillance Requirement worksite assessment of TRU waste containers for acceptable container types, venting, and incompatible chemical contents.
- o Contractor Assurance Regulatory Reporting (CARR) accomplishments:
  - 123 Condition Reports (CRs) were screened:
    - No significant issues identified.
    - Two adverse issues identified.
    - 64 Track until Fixed issues identified.
    - 24 Trend Only items identified.
    - 30 Opportunity for Improvement (OFI) items identified.
    - Three Screened Out.
  - 183 CRs administratively closed.
  - 355 CRs actions administratively closed.
  - Provided Course #600082, *Responsible Manager Training, Issues Management*, to 12 employees.
  - Provided full time support to PFP Issues Management and Occurrence Reporting activities.
  - Transmitted two new Occurrence Reporting and Processing System (ORPS) reports associated with PFP: EM-RL--CPRC-PFP-2017-0001, *PFP Worker Experienced an Electrical Shock While Plugging a Battery Charger into a Power Source*; and EM-RL--CPRC-PFP-2017-0002, *Branch Line on Fire Riser 11 Broken During D&D Activities*.
  - Provided support and coordination for the Bi-Monthly conference call with the Defense Nuclear Facilities Safety Board (DNFSB) to discuss the PFP demolition planning/readiness.
  - Provided support for the upcoming DNFSB review of aging electrical infrastructure at Hanford.
  - Six documents were provided in response to DNFSB requests for information.
  - Provided support to DOE HQ in the revision of DOE O 232.2, *Occurrence Reporting and Processing Operations Information*.
  - Published the December 2016 Contractor Assurance System Summary Report.
  - One internal Lessons Learned was submitted to OPEXShare January 2017: LL-2017-PFP-0001, *Verify Pressure Systems are Depressurized Before Cutting*.
- o Performance Oversight, Assessment, and Quality Assurance accomplishments:
  - Supported a Corporate Assist Visit to the West Valley project to evaluate concerns with Safety Culture indications of concern.
  - Continued analysis/evaluation of lessons learned from PFP readiness assessment.
  - Provided specific mentoring and feedback to assessors and responsible managers that conducted management assessments. Feedback was provided to help improve the quality, including clarity and readability of future reports. Provided assessment mentoring to KBO&PR, PC&PI, and Soil & Groundwater organizations.
  - Issued final report for 10 CFR 835 Subpart H, Records. There were three issues identified related to CHPRC implementing procedures.
  - Continued to work on periodic review and updates to QA Procedures.
  - Surveillance SHS&Q-2017-SURV-16456, PRC-PRO-QA-599, *Quality Assurance Program, NQA-1, Requirement 15 and Requirement 16*, field work in progress.
  - Supported qualification of two Quality Assurance Engineers to support Waste & Fuels and K-Basins Operations.

- o Fire Protection accomplishments:
  - The 242-Z Facility Fire System Deactivation Plan was prepared and approved.
  - CHPRC-03157, *Deactivation Analysis for the 234-5Z and 234-5ZA Fire Alarm System and Emergency Lighting Systems*, was drafted and routed for internal review in January. It is anticipated that the document will be transmitted to the Hanford Fire Marshal (HFMO) for formal review in February.
  - All field actions associated with CR-2016-2426, *Fire Extinguisher Deficiencies identified at PFP by HFD*, have been completed. The final field actions were completed in January and CR-2016-2426 closed on January 26, 2017.
  - The following TSR activities were completed:
    - W&FMP:
      - o 2T-16-07192, T Plant 3 month Combustible Surveillance
    - PFP:
      - o SR 5.12.4.2 – Monthly inspection of sprinkler deactivation or deviation areas.
      - o SR 5.18.4.2 – Monthly inspection of facility and exterior for compliance with fire protection combustible controls.
      - o SR 5.19.4.3 – Monthly inspection of facility for energized power cords, energized battery chargers and spontaneous ignition source material.
      - o SAC 5.20.2 – Bi-weekly inspection of front side ventilation zone 1 areas – performed by Fire Safety Officer (FSO).
      - o SAC 5.20.2 – Monthly inspection of front side ventilation zone 1 areas – performed by Project Fire Protection Engineer (PFPE).
  - Facility Hazards Analysis (FHA):
    - The 105KW FHA, HNF-SD-SNF-FHA-001 Rev 3, was approved in December. Technical editing due to WORD version incompatibilities that corrupted the final file has been completed and the document is in final review before publication.
    - The Plutonium Uranium Extraction (PUREX) FHA, CP-41822, was completed; HFMO comments have been received and resolution is in progress.
    - The B Plant FHA, CP-41843, was transmitted to the HFMO in January.
    - The U Plant FHA is under development.
    - The 402 Building FHA is under development; the document is expected to enter the formal review process in February.
    - The 324 Building FHA is under development to incorporate the 300-296 Project.
    - Revision to the 618-10 FHA is underway.
    - Preparation of an Integrated Disposal Facility FHA has been initiated.
  - All field actions associated with CR-2016-2426, *Fire Extinguisher Deficiencies identified at PFP by Hanford Fire Department (HFD)* have been completed. The final field actions were completed in January and CR-2016-2426 closed on January 26, 2017.
  - On January 16, 2016, a PFP Riser 11 sprinkler line was damaged causing a water leak in room 262. The fire alarm was activated and HFD responded. Riser 11 was isolated at OS&Y-121-2 and the main drain opened slightly to drain water from the system. LCO 3.4.1 was entered and fire surveillance was implemented.
  - Inclement weather (multiple site closure days) contributed to the need to request extension of two PFP ITM work packages. Additionally, restricted access to the 291-Z facility from past January month end, prevented completion of functional test of the FCP-1414 Fire Alarm Control Unit.

- CHPRC is supporting the MSA led L-849 and L-850 Projects. The Projects will replace the existing 1.1 million gallon Sanitary Water (SW) Tanks in 200E and 200W. Calculations have been prepared to document the required Fire Water for CHPRC managed 200 Area facilities, including PUREX, REDOX, B Plant, T Plant, and U Plant. Comments were provided to the MSA in early January and comment acceptance/document approval have been received.
- CHPRC continues to support the MSA Radio Fire Alarm Reporter (RFAR) Project. Issues associated with the performance of the 105KW RFAR Unit are being worked in support of the MSA. The full scope of the support work will include the development and processing of Facility Modification Plans (FMPs). Interface Management is working with MSA to identify funding for the CHPRC actions.
- Forty-eight Facility Fire Protection Assessments are planned for calendar year 2017. Preparations were initiated in January.
- Planning has been initiated for revision to WHC-SD-GN-TI-20004 Rev 0, *A method for estimating ground areas contamination by a postulated fire in a facility containing radioactive material*. A meeting was held with the DOE-RL in January to discuss the path forward.
- Offers have been accepted by two Oklahoma State University (OSU) Fire Protection Engineering program students for Associate Fire Protection Engineer (FPE) positions. Expected start dates are April/May 2017 and June/July 2017.
- SHS&Q Focus Areas:
  - o **Issue:** Beryllium program assessment findings from Department of Energy (DOE-HQ), Office of Safety, Health and Security Independent Oversight Inspection report.
  - o **Status:** Revision 3 was signed off by T. L. Vaughn. Implementation continues.
  - o **Action:** Beryllium facility assessments and characterization on schedule. Beryllium facility assessments have been completed on 1,455 CHPRC facilities.
  - o **Issue:** Accident & Injury Reduction.
  - o **Status:** Continue investigating recordable, days away, restricted, or transferred, and first aid injuries to determine cause, prevention, reduction, to prevent recurrence.
  - o **Action:** CHPRC is conducting the root cause analysis for the recent Waste and Fuels -Mission Support Alliance (MSA) teamster vehicle incident. Anticipate completion in January.
  - o **Issue:** PFP support.
  - o **Status:** Supporting PFP with dedicated OS&IH personnel and Radiological Control personnel, from the SHS&Q Central group for oversight of high-risk work activities.
  - o **Action:** Providing senior supervisory watch for Plutonium Reclamation Facility (PRF) demolition activities based upon specific hazard activities in coordination with PFP management.
  - o **Issue:** Fire Protection program improvements.
  - o **Status:** CHPRC Fire Protection personnel are actively interfacing with HFD and RL regarding Fire Protection program improvements related to fire hazard analyses.
  - o **Action:** Continued interface with MSA regarding CHPRC fire system maintenance back log items. Latest follow-up meeting with MSA on the Joint Fire System Maintenance Workshop actions occurred January 16, 2017.

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

### Environmental Protection

- **Compliance Status**
  - o CHPRC initiated transition into the lead for project management and delivery for reissuance of the Hanford Facility RCRA Permit (Rev. 9) in accordance with RL direction received in December 2016. The detailed scope and cost to support the contract change will be developed and submitted to RL in February 2017

- o CHPRC is developing a position paper and strategy for resolution of issues with WAC-173-303-200(1)(d) major risk labeling requirements identified by Ecology during recent inspections.

### **Environmental Management System (EMS)**

- **Objectives and Target Status**
  - o Targets and Objectives for FY2017 are approved.

### **Environmental Compliance & Quality Assurance (ECQA)**

- **Assessment Program**
  - o A surveillance assessing conformance to regulatory agency notification protocols outlined in CHPRC procedures was conducted by EC&QA from January 3-17, 2017. The surveillance report, which will be issued the end of January, identified four findings and three OFI.

### **Business Services**

- **Acquisition Planning:**
  - o Met with IT representatives on the process to renew software licensing and maintenance agreements. Drafted statements of work for their use on a near-term procurement action.
  - o Assist PFP and Procurement with the identification of near-term needs for waste packaging products. Provided the information to Procurement for the purposes of expediting shipments to the Hanford site.
  - o Assisted ERDF operation with identifying the correct contract vehicle to receive maintenance repairs at their general purpose facilities. Provided points of contact within the Facilities and Property Management organization.
  - o Updated and issued a revision to the Functional & Project Concurrence checklist. The revision incorporates revised questions and updates to the points of contact for the functional areas.
  - o Worked with the 618-10 Project to determine on-going needs for temporary generator equipment. Developed a number of acquisition strategy options and presented those options to Procurement for action.
  - o Completed a review of contract and statement of work templates and made recommendations to include craft-specific hazard analysis as part of the contractor work-planning process.
  - o Coordinated the removal of left over construction material in the 300-296 mockup facility. The construction material was left behind by a construction contractor hired by the property owner prior to CHPRC assuming control of the leased facility.
  - o Met with CHPRC Safety Health Security & Quality organization to ensure Procurement is taking the correct approach when hiring contractors that require medical screening prior to commencement of work. There was some concern that contractors were starting work prior to all medical screenings were complete. Procurement has adequate controls in place to ensure this concern is addressed.
- **Facilities & Property Management (F&PM):**
  - o FY2016 Physical Property Inventory has been completed. F&PM completed locating 99.82 percent of 3,317 items through January 2017. All RL targets were either met or exceeded. Two items remain to be reconciled. Inventory is scheduled to be frozen February 27, 2017, in preparation of FY2017 Physical Property Inventory.
  - o Move planning/execution for RL and CHPRC between Federal Building and 2420 Stevens continues. Turnaround offices and LR/HR moved in January 2017. President Office and General Council to move in February 2017. Working balance of move sequencing and final master schedule. Painting/carpeting underway in 2420, as well as facility upgrades within the Federal Building.

- o Efforts to remove and replace Mobile Office (MO029) at Waste Encapsulation and Storage Facility (WESF) continue. Target completion date of February 28, 2017, may slip due to mobile office Manufacture's production schedule.
- o Adding a shower trailer to support Soil and Groundwater Remediation Project (S&GRP) Drilling and Sampling Operations at Waste Sampling and Characterization Facility continues. Alternate location established due to water lines running beneath original placement location.
- o A newer single wide office trailer is being planned in the 400 Area in support of potable water operations. Working with MSA on placement permits, including cultural review for required trenching.
- o A single wide restroom trailer is being planned for addition to the 300 Area in support of the 324 Building project. Working with project to establish required permits.
- o Work continued in January to restore potable water connections to MO061 and MO245 in the 300 Area. Plant Forces to perform work, currently discussing options using regulated guzzler truck vs backhoe/hand dig. Portable toilets are the temporary solution.
- o Continuing work with Engineering to resolve 300 area above ground utilities issue.
- **Finance:**
  - o January month end completed with no cost suspensions.
  - o Received a draft report from RL regarding the FY2015 Incurred Cost Audit.
  - o Drafted a corrective action plan for resolution of RL Construction Work in Process balances.
- **Human Resources (HR):**
  - o Completed the annual Affirmative Action Plan and preparing the dissemination of information to senior management.
  - o Two new HR Field Representatives were hired. One position was backfilling an open position and the second was a new position due to the addition of work scope and two new project organizations (ERDF/618 and 300Area).
  - o Human Resources received approval from RL to update the CHPRC Exempt, Salaried Nonexempt, and Drafter/Designer Salary Structures. The Salary Structures were adjusted upward by 2.1% with an effective date of January 1, 2017.
  - o Provided RL with the FY2016 Top 5 Executive Compensation Report.
  - o CHPRC HR initiated efforts with MSA Information Services to make user enhancements to the Salary Planning Module. These enhancements will be utilized during the CY2017 Salary Planning Process in the fall. Performed auditing activities as part of the annual issuance of employee 1095-C forms and communicated with all employees regarding availability of tax information.
  - o HR teamed up with MSA to work out the roles and responsibility for each organization to help facilitate compliance with the Federal Identity, Credential, and Access Management (FICAM) standards. HR will help new employees understand the process for obtaining a Logical Access Control System (LACS) badge requirement as part of the new hire orientation. Physical Access Control Systems (PACS) badges, used at the Federal Building, will continue to be initiated by an employee's manager after starting work.
- **Labor Relations (LR):**
  - o Grievances PRC-015-051 and PRC-016-014 continue dealing with purchasing items (i.e. pipe spools) from offsite vendors have been requested to proceed to arbitration, although the union put a hold on selecting the panel until they can further review.
  - o Arbitration scheduled for October 11, 2016, was postponed by mutual agreement in an effort to allow parties additional time to reach settlement in regards to Grievance PRC-015-011 in which the Union is claiming miss-assignment of work in regard to respirator maintenance. Parties are in discussions to try and reach a settlement.

- **Procurement:**

- o Awarded/amended 108 contracts with a total value of \$3.0 million. Additionally, awarded 151 new material Purchase Orders (PO) valued at \$586,531 to support ongoing project objectives.
- o At the end of the first 100 months of the CHPRC project, procurement volume has been significant; \$2.48 billion in contract activity has been recorded with approximately 54.31 percent, or \$1.34 billion, in awards to small businesses. This includes 7,612 contract releases, 22,178 POs, and 264,666 P-Card transactions.
- o Contract 56189-10 was awarded to Holt Services, Inc. on December 27, 2016. This is a firm fixed price contract for the “Installation of 25 Injection and 11 monitoring wells in the 300-FF-5.” This award is valued at \$590,000.
- o Contract 56189-11 was awarded to Holt Services Inc. on December 27, 2016. This is a firm fixed price contract for the “Installation of 23 Injection, 8 monitoring wells, & Optional Decommissioning of 15 Wells in the 300-FF-5.” This award is valued at \$495,750.
- o Contract 36883-036 was awarded to Ojeda Business Services on January 3, 2017. This is a firm fixed price contract for the installation of a stainless steel covered concrete pad at the Maintenance and Storage Facility (MASF). This award is valued at \$158,047.58.
- o Contract 62089 was awarded to Columbia Energy & Environmental Services, Inc. on January 5, 2017. This is a firm fixed price contract for the fabrication of the 324 Building airlock track and cart assemblies. This award is valued at \$234,681.74.
- o Contract 48767 Release 5 was awarded to Cascade Drilling on January 11, 2017. This is a firm fixed price contract for the installation of one injection well and four vapor monitoring wells. This award is valued at \$227,000.
- o Contract 36883 Release 35 was awarded to Ojeda Business Ventures on January 12, 2017 (LNTP issued on December 21, 2016). This contract is a firm fixed price contract for PFP Mobile Office Trailer Lease and Installation. This award is valued at \$337,959.80.
- o Contract 52041 Release 39 was awarded to Ojeda Business Ventures on January 3, 2017. This contract is a fixed unit rate contract for the “Relocation of MO2236.” This award is valued at \$80,661.55.
- o Contract 41114 Release 22 was awarded to Pacific Mobile Structures, Inc. on January 12, 2017. This contract is a firm fixed price contract to “Procure 5-wide Mobile Office and RR Trailer for WESF.” This award is valued at \$295,000.

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

- **Prime Contract Compliance (PCC):**

- o In January, PCC received and processed four contract modifications (559, 568, 569, and 571) from RL.
- o The Correspondence Review Team received and determined the distribution for 50 incoming letters/documents. The PCC Manager reviewed 35 outgoing correspondence packages.
- o Issued CHPRC-1700104, *Notification of Differing Site Condition at the Plutonium Finishing Plant.*
- o Issued CHPRC-1700206, *Request for Excusable Delay Due to Unusually Severe Weather.*
- o Issued CHPRC-1700188, *Performance Measure Completion Request for Contracting Officer Acceptance Per PRC Clause B.8(C) – RL-013, Fiscal Year 2016, PM-13-5-17.* This Performance Measure was to Submit a Hanford Site Waste Flow Optimization Plan for Environmental Restoration Disposal Facility and Perma-Fix Northwest.

## Integrated Services

### • Estimating & Program Support

- o Four Change Proposals/Request for Equitable Adjustments (CPs/REAs) were submitted to RL in January 2017:
  - CP 013 PRC 1634 - *Temporary Storage of the Waste Encapsulation and Storage Facility Concrete Cores*, submitted on January 23, 2017.
  - CP 013 314 1638 - *Outside Storage Area Closure Plan Revisions*, submitted on January 18, 2017.
  - CP 040 RFP 1641 - *Miscellaneous Project Baseline Summary RL-0040 Work Scope*, submitted January 26, 2017.
  - CP 041 320 1642 - *Sand Filter Media Removal Design*, submitted on January 24, 2017.
- o Eleven CPs/REAs have been submitted FY2017 to-date, ten on or ahead of schedule with one CP/REA submitted late.
- o Continued development of five CPs/REAs:
  - CP 012 PRC 1643 - *Sludge Retrieval Project Acceleration*.
  - CP 013 308 1629 - *Management of the Cesium and Strontium Capsules Capital Asset Project Deductive Proposal*.
  - CP 013 322 1639 - *Integrated Disposal Facility Revised Operational Requirements*.
  - CP 041 319 1640 - *Garnet Filter Media Removal*.
  - CP 040 321 1645 - *Resource Conservation and Recovery Act (RCRA) Revision 9 Management and Coordination*.
- o Initiated development of three CPs/REAs:
  - CP 030 318 1618 - *200-WA-1 and 200-BC-1 Operable Units Characterization*.
  - CP 000 PRC 1644 - *Hanford Site Wide Transportation Safety Document*.
  - CP 000 REA 1646 - *Hanford Site Safety - Confined Space*.
- o Supported four 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 041 307 1621 - *100K Additional Tons FY2016 and FY2017*.
  - CP 013 310 1624 - *Solid Waste Operations Complex Hazards Mitigation Activities*.
  - CP 040 311 1625 - *Emergency Response for Facility/Waste Site Environmental, Safety, Health, and Quality (ESH&Q) or Remediation*.

### • Interface Management:

- o Interfaces (Technical, Administrative and Regulatory):
  - Continue to support communications between WRPS at 222-S and CHPRC at REDOX. USQ reviews of adjacent contractor work packages are ongoing. Current project activities include the REDOX roof upgrade.
  - Provided the MSA project team with facility points of contact for planning and facility access. Also, awaiting schedule and scope details from the MSA project team to determine facility impacts.
  - Facilitated communications between PFP and the MSA warehouse. Issues range from misplaced orders, to Acquisition Verification Service priorities. Interface Management will continue to maintain communications and track issues upon request from the Project.
  - Provided the Other Hanford Contractors with notification of the new PRC scope to provide the administrative update responsibilities for the Hanford Sitewide Transportation Safety Plan, DOE/RL-2001-36. This was previously managed directly by DOE-RL. Currently in discussion with the Other Hanford Contractors (OHCs) on the need for a J.3 table update and other potential impacts of this change.

- Attended the weather delayed Infrastructure Services and Alignment Plan (ISAP) kickoff meeting and initiated internal reviews and data call collection for the annual ISAP reporting request from MSA.
- Provided MSA Long Term Stewardship with a map, access requirements, and signage and monitoring information for the Underground Radioactive Material Areas (URMAs) in/around the 324 facility.
- Provided requested feedback to MSA on MSA Performance Incentive 2.1.4 Integration with OHCS. Topics covered included: interface planning, site services process, site services cost reporting, and Business Management Systems.
- o Annual Forecast of Services:
  - Continued flow of communication/requests for MSA resources, as required by emerging project needs.
- o Inter-Contractor Issue Resolution:
  - Continued communications between MSA Biological Controls and CHPRC representatives regarding tumbleweed and tree line removal southwest of CWC. Drafted an intercontractor work order; resolution pending agreement by all parties on the roles and responsibilities related to disposition of the tumbleweeds and the tree line.
  - Increased communications with MSA related to site snow removal; increased snow fall created many questions related to roles and responsibilities. Drafted an intercontractor work order for increased coverage of CHPRC facilities in the 300 Area. As questions arise, Interface Management will continue to clarify company responsibilities, any jurisdictional issues and/or project roles.
  - Sent email communication to MSA Fire Systems Maintenance in response to Condition Reporting and Resolution System (CRRS) item CR-2016-2440 and Operational Assessment-OA68867, regarding managing field changes and following work instructions in the MSA Work Packages/Data Sheets.
  - Engaged in communications with MSA management regarding the unilateral change by the MSA Fire Systems Maintenance program to remove CHPRC facility from operations acceptance on Radio Fire Alarm Reporters and Hydrant Maintenance work packages. CHPRC facility management is not in concurrence with this change.
- o Controlling and Service Agreements:
  - Published MOA-HPMC-CHPRC-2013, Revision 1, Memorandum of Agreement (MOA) for the Performance of Services between HPM Corporation (HPMC) Occupational Medical Services and CHPRC.
  - Drafted PRC-AIA-PNNL-00495, AIA between CHPRC and PNNL for demolition of MO-226 in the 300 Area, documenting the roles and responsibilities of each party.
  - Reviewed and provided comments on six Service Delivery Documents during the month of January 2017.
- o J.3 Table Maintenance:
  - Awaiting J.3 Table contract modifications for the Effluent Treatment Facility and RCCC scope transitions and other miscellaneous changes.
  - PRC received a contract modification that re-assigned Resource Conservation and Recovery Act (RCRA) Part B permit administration and coordination from MSA to PRC. A redline of the J.3 #25 Environmental Regulatory Management modification is under review with the OHCs and will be processed through MSA to RL.
- o J.13 and J.14 Tables Maintenance:
  - Continue tracking new assignments related to the RCCC transition that will be captured in the next J.13/J.14 table review and other contract related actions.

- Assembled review package for the update of the J.14 table in response to newly assigned Waste Sites per Contract Modification 461 and Change Order 296.
- o Internal Operations:
  - Working several documents revisions/cancellations related to the RCCC scope transfer to CHPRC. Involved parties include City of Richland, Pacific Northwest National Laboratory, 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.
- **Information Management:**
  - o Processed 18,249 Electronic Records into the Integrated Document Management System (IDMS).
  - o Work with MSA is continuing to improve network connectivity and speed in 300 Area for Soil Remediation Project and 600 Area for 618-10 Project. A walk down with the electrical services subcontractor was performed, and work will begin as soon as weather allows.
  - o Continued support to internal data validation and tests of DOE Earned Value Cost and Schedule Analysis (EVCSA) tool.

### **Project Integration**

- o During January, Project Integration facilitated and supported the processing of 10 BCRs.
- o In support of the “Integration of the CHPRC Project Controls System Description and the Earned Value Management Interpretation Handbook (EVMSIH)” initiative reported in the December 2016 Monthly Report, two (2) Requests for Proposals were issued and responded to by two (2) bidders. The subject proposals are currently being evaluated for technical capabilities.
- o A team of subject matter experts (SMEs) have been working through the DOE-HQ Office of Project Management Oversight and Assessments (PM-30) “Earned Value Cost and Schedule Analysis” (EVCSA) tool process to evaluate and analyze the tool test results. EVCSA data (once validated) will be an indicator of CHPRC’s capital projects earned value health.

### **Program Integration**

- **000 Project EVM Support:**
  - o Met with Control Account Managers to review December data and update FY2017 fiscal year spend forecast (FYSF). Performed month end analysis of 000 control accounts and variance analysis reporting.
  - o Worked with Prime Contract Compliance and Project Integration to determine proper PBS to account for the change to the Site Wide Transportation Safety Document.
  - o Met with Project Integration, Interface Management, and Directors of PCPI on MSA Quantity Based Estimate Tool to share issues and propose changes.
- **Risk Management and Reporting:**
  - o Conducted meeting with RL related to the FY2017 Estimate to Completion (ETC) Review Comment Record (RCRs). Anticipate to have supplemental documentation for final disposition late February.
  - o Continued to support RL-0011 risk event impact cross-walk for potential drawdowns of management reserve.
  - o Conducted quarterly risk register reviews with Projects.
  - o Issued the CHPRC December Monthly Performance Report to RL.
  - o Supported development of the CHPRC December Monthly Highlights to the Nuclear Business Group.

- Developed new CHPRC monthly project review packet.
- Issued CHPRC December Corporate project review report.
- Finalized internal CHPRC KPG chart to maintain progress for FY2017.
- Conducted Internal Project Team reviews of project performance for December data.
- Provided PCPI input into Contractor Assurance System (CAS) December Report.
- Conducted risk meetings to support change proposals in development.
- **Strategic Management:**
  - Updated CHPRC FY2017 Execution Year Priority list per January Field Execution Schedule projected completion dates and incorporated in DOE Integrated Priority List (IPL) ranking. The execution year priority list will be updated monthly and posted on CHPRC internal website.
  - Produced internal CHPRC draft of a multi-year CHPRC IPL to incorporate near term and long-term priorities for CHPRC. On-going activities include ranking long range plan scope and emerging priorities with the release of the DOE 2020 vision. After CHPRC review a meeting will be scheduled to review with RL.
  - A joint venture between Business and Environmental Strategic Planning continued in January to strategize key projects to focus near-term and out year planning. The overall goal will be to align both project and regulatory key strategic initiatives to support successful project completions.
  - Held monthly Productivity Tracking Log meeting with the projects. Discussed company level metrics and Projects briefed their metrics of productivity delays and efficiencies.
  - Drafted Matrix of corrective actions for CR-2014-2322 to support RL Closure review.
  - Developed Lines of Inquiry for Project assessments of the Productivity Tracking Log process. Assessments are due in March.
  - Continued work with various projects on Long Range Planning to support work from FY2018-FY2021, including KW Deactivation & Demolition, Soil & Groundwater, and Waste and Fuels M-91 and Dry Storage.
  - Provided input to key project initiatives, including burial ground waste research, the cesium/strontium dry storage project and the alpha caisson retrieval project.
  - Assisted DOE with GAO requests regarding remaining TRU waste inventories at Hanford and future disposal needs to analyze current Waste Isolation Pilot Plant (WIPP) capacity.
  - 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.

## PTS

- Engineering Services
  - Released new revision for “*HEPA Filter Service Life Evaluation Process*,” PRC-PRO-EN-24208, Revision 4/Change 0 procedure.
  - Engineering, Nuclear Safety, and Procedures finalized actions to allow 324 Engineering to convert over to using the CHPRC Engineering Procedure set. All 324 Engineering staff have completed their required CHPRC engineering qualifications.
- Training and Procedures
  - Worked with HAMMER to develop scheduling strategy for training impacted by site closure days.
  - Completed first session of Crucial Conversations in support of Safety Conscious Work Environmental goals.
  - Teamed with MSA and WRPS to develop standardized Hanford Site Training Metrics.

- o Teamed with site contractors to develop software requirements for a new Enterprise Learning Management System.
- Operations Program
  - o Conduct of Operations (ConOps)/Work Control/Conduct of Work
    - Provided Field Work Supervisor training class.
    - Developed and submitted a Frequently Asked Question's page for Lockout/Tagout Primary Authorized Worker.
    - Began Work Site Assessment of Important to Safety (ITS) Corrective Maintenance Backlog.
    - Continued General Industry Hazard Analysis/Craft Specific Hazard Analysis updates.
    - Provided facilities with list of Preventative Maintenance Authority changes made by MSA on fire related Job Control System activities for evaluation/validation.
    - Coordinated with MSA to review activities to improve performance of maintenance on fire systems.
    - Issued PRC implementation memo for Hanford Site Lockout/Tagout Procedure - Controlled Work Area.
    - Supported Conduct of Work Improvement Plan Common Cause Analysis.
    - Conducted Craft Specific Hazard Analysis training for 324.
  - o Emergency Preparedness (EP)
    - Provided Chemical Screening Training to the new EP Coordinators and new EP Lead.
    - Commenced EP Assessment of all Facilities.
    - Commenced RL Triennial Assessment Corrective Action Plan revisions.
    - Conducted three Facility level drills.
- Project Delivery
  - o Federal Building Upgrades
    - Approved Negative Exposure Assessment for asbestos-containing material approach and plan.
    - Continued with upgrades.
  - o Radio Fire Alarm Reporter (RFAR) and Fire Alarm Control Panel (FACP) upgrades
    - Project placed on hold awaiting further RL direction of scope.
  - o 300-296 Soil Remediation Project
    - Awarded the construction contract for 300-296 and mockup infrastructure to DGR Grant, Construction. Held post award meeting.
    - Issued Contract for test pad construct at Maintenance and Storage Facility to Ojeda Business Ventures.

### Communications

- o Communications supported RL in the development of EM newsletter articles regarding the PFP McClusky Room demolition.
- o Communications supported RL in rolling out a video regarding an overview of 324 Building Disposition Project.
- o Communications supported RL in conducting interviews that will generate articles in the media, including:
  - Uranium Sequestration in the 300 Area.
  - REDOX EE/CA Public Comment Period
- o Communications supported RL in the response to media inquiries regarding contamination spread during PFP demolition waste handling.

- o Communications supported RL in the development of several social media posts, including:
  - 324 Building Disposition Project.
  - Fiscal Year 2017 Quarter 1 Review.
  - Hanford Giving, employees highlighted for community giving.

## PROJECT BASELINE PERFORMANCE

### Current Month

(\$M)

| WBS 000<br>Project Services and Support      | Budgeted<br>Cost<br>of Work<br>Scheduled | Budgeted<br>Cost<br>of Work<br>Performed | Actual<br>Cost<br>of Work<br>Performed | Schedule<br>Variance<br>(\$) | Schedule<br>Variance<br>(%) | Cost<br>Variance<br>(\$) | Cost<br>Variance<br>(%) |
|----------------------------------------------|------------------------------------------|------------------------------------------|----------------------------------------|------------------------------|-----------------------------|--------------------------|-------------------------|
| Office of the President                      | 0.1                                      | 0.1                                      | 0.1                                    | 0.0                          | 0.0%                        | 0.0                      | 10.7%                   |
| Internal Audit                               | 0.1                                      | 0.1                                      | 0.0                                    | 0.0                          | 0.0%                        | 0.1                      | 83.7%                   |
| General Counsel                              | 0.1                                      | 0.1                                      | 0.0                                    | 0.0                          | 0.0%                        | 0.1                      | 58.6%                   |
| Communications                               | 0.1                                      | 0.1                                      | 0.1                                    | 0.0                          | 0.0%                        | 0.0                      | 20.3%                   |
| Safety, Health, Security and Quality         | 1.1                                      | 1.1                                      | 0.9                                    | 0.0                          | 0.0%                        | 0.3                      | 23.7%                   |
| Environmental Program and Strategic Planning | 0.4                                      | 0.4                                      | 0.2                                    | 0.0                          | 0.0%                        | 0.2                      | 49.9%                   |
| Business Services                            | 1.8                                      | 1.8                                      | 1.7                                    | 0.0                          | 0.0%                        | 0.0                      | 1.2%                    |
| Prime Contract and Project Integration       | 1.8                                      | 1.8                                      | 1.2                                    | 0.0                          | 0.0%                        | 0.6                      | 31.1%                   |
| Project Technical Services                   | 0.6                                      | 0.6                                      | 0.4                                    | 0.0                          | -0.2%                       | 0.2                      | 32.7%                   |
| <b>Indirect WBS 000 Total</b>                | <b>6.1</b>                               | <b>6.1</b>                               | <b>4.7</b>                             | <b>0.0</b>                   | <b>0.0%</b>                 | <b>1.4</b>               | <b>23.0%</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: (+\$1.4M/+23.0%)

The current month positive cost variance is primarily due to the significant number of work delays, early releases, and cancellations due to adverse weather conditions. Another contributor was the unanticipated lower than planned on demand services for the WBS 000.17.03.02 Information Technical Management.

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

| WBS 000<br>Project Services and<br>Support      | Budgeted<br>Cost of Work<br>Scheduled | Budgeted<br>Cost of Work<br>Performed | Actual<br>Cost of Work<br>Performed | Schedule<br>Variance<br>(\$) | Schedule<br>Variance<br>(%) | Cost<br>Variance<br>(\$) | Cost<br>Variance<br>(%) | Budget at<br>Completion<br>(BAC) |
|-------------------------------------------------|---------------------------------------|---------------------------------------|-------------------------------------|------------------------------|-----------------------------|--------------------------|-------------------------|----------------------------------|
| Office of the President                         | 0.5                                   | 0.5                                   | 0.5                                 | 0.0                          | 0.0%                        | 0.1                      | 14.5%                   | 1.8                              |
| Internal Audit                                  | 0.3                                   | 0.3                                   | 0.2                                 | 0.0                          | 0.0%                        | 0.2                      | 49.1%                   | 1.2                              |
| General Counsel                                 | 0.4                                   | 0.4                                   | 0.3                                 | 0.0                          | 0.0%                        | 0.1                      | 25.0%                   | 1.5                              |
| Communications                                  | 0.3                                   | 0.3                                   | 0.3                                 | 0.0                          | 0.0%                        | 0.0                      | -13.2%                  | 1.1                              |
| Safety, Health, Security<br>and Quality         | 4.5                                   | 4.5                                   | 3.7                                 | 0.0                          | 0.0%                        | 0.8                      | 18.3%                   | 15.6                             |
| Environmental Program<br>and Strategic Planning | 1.6                                   | 1.6                                   | 1.1                                 | 0.0                          | 0.0%                        | 0.5                      | 28.5%                   | 5.5                              |
| Business Services                               | 7.0                                   | 7.0                                   | 6.4                                 | 0.0                          | 0.0%                        | 0.6                      | 8.5%                    | 24.1                             |
| Prime Contract and<br>Project Integration       | 7.1                                   | 7.1                                   | 6.1                                 | 0.0                          | 0.0%                        | 1.0                      | 14.6%                   | 24.5                             |
| Project Technical Services                      | 2.2                                   | 2.2                                   | 2.0                                 | 0.0                          | 0.6%                        | 0.2                      | 8.9%                    | 7.5                              |
| <b>Indirect WBS 000 Total</b>                   | <b>24.1</b>                           | <b>24.1</b>                           | <b>20.7</b>                         | <b>0.0</b>                   | <b>0.1%</b>                 | <b>3.4</b>               | <b>14.3%</b>            | <b>82.9</b>                      |

Numbers are rounded to the nearest \$0.1 million.

### Indirect WBS 000

#### FYTD Schedule Performance: (+\$0.0M/+0.1%)

The variance is within reporting thresholds.

#### FYTD Cost Performance: (+\$3.4M/+14.3%)

The FYTD positive cost variance is primarily due to the significant number of work delays, early releases, and cancellations due to adverse weather conditions. Another contributor was the unanticipated lower than planned on demand services for the WBS 000.17.03.02 Information Technical Management. The Safety Health Security & Quality organization are experiencing less FTEs than budgeted to also contribute to the positive cost variance.

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

| WBS 000<br>Project Services and Support       | FY 2017      |                |                           |                |                    |                             |
|-----------------------------------------------|--------------|----------------|---------------------------|----------------|--------------------|-----------------------------|
|                                               | FYTD<br>BCWS | FYTD<br>Actual | FYTD<br>Variance<br>(O)/U | FY2017<br>BCWS | FY2017<br>Forecast | FY2017<br>Variance<br>(O)/U |
| <b>General &amp; Administrative (G&amp;A)</b> | <b>24.1</b>  | <b>20.7</b>    | <b>3.4</b>                | <b>82.9</b>    | <b>81.3</b>        | <b>1.6</b>                  |
| Office of the President                       | 0.5          | 0.5            | 0.1                       | 1.8            | 1.8                | 0.1                         |
| Internal Audit                                | 0.3          | 0.2            | 0.2                       | 1.2            | 1.0                | 0.1                         |
| General Counsel                               | 0.4          | 0.3            | 0.1                       | 1.5            | 1.3                | 0.2                         |
| Communications                                | 0.3          | 0.3            | (0.0)                     | 1.1            | 1.4                | (0.3)                       |
| Safety, Health, Security and Quality          | 4.5          | 3.7            | 0.8                       | 15.6           | 14.7               | 0.9                         |
| Env. Program & Strategic Planning             | 1.6          | 1.1            | 0.5                       | 5.5            | 4.7                | 0.8                         |
| Business Services                             | 7.0          | 6.4            | 0.6                       | 24.1           | 25.1               | (1.0)                       |
| Prime Contract and Project Integration        | 7.1          | 6.1            | 1.0                       | 24.5           | 23.4               | 1.1                         |
| Project Technical Services                    | 2.2          | 2.0            | 0.2                       | 7.5            | 7.9                | (0.4)                       |

| FY2017                                  |               |               |
|-----------------------------------------|---------------|---------------|
| <b>G&amp;A Distribution</b>             | <b>(24.2)</b> | <b>(89.9)</b> |
| <b>G&amp;A Liquidation (Over)/Under</b> | <b>(3.5)</b>  | <b>(8.6)</b>  |

### Liquidation Analysis

For January, application of the G&A rate has over-liquidated total to date G&A cost by \$3.5 million. The FY2017 year-end projected over-liquidation of \$8.6 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  
RL-0011\_C1, RL-0011\_C2, and RL-0012\_C1\_1



January 2017  
CHPRC-2017-01, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

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



T. E. Bratvold  
Vice President for  
PFP Closure Project

January 2017  
CHPRC-2017-01, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

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 will be complete on April 13, 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 at 94 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                          | -                         | -                            | 174                    | 164                       |
| <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 glovebox process equipment removal has been completed. Final preparations to support the physical removal of the remaining gloveboxes will be completed by April 13, 2017. As the project nears the ready for demolition milestone for the 234-5Z building (approximately May 2017), more gloveboxes will begin to be removed from the facility.
- Continued activities in preparation of removal of Gloveboxes HA-7A, HC-18M, and HC-7C.

## 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<br>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><br>No major changes to the monthly spotlight chart in the month of <b>January</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>January</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:<br>Glove<br>Box/Equipment<br>Removal/Demolition<br>Material Handling<br>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.<br><b>Risk Handling Strategy:</b> Accept<br><br><b>Probability:</b> Low (10% to 25%)<br><b>Worst Case Impacts:</b> \$150K, 30 days |  |  | <b>Risk Trigger:</b> During pre-demolition/demolition activities in FY2017. |                |          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                      |                                                                                   |                                                                                   | <b>Mitigation action(s)</b>                                                 | <b>FC Date</b> | <b>%</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                      |                                                                                   |                                                                                   | None identified at this time.                                               | N/A            | N/A      |
| <b>Mitigation Assessment:</b> <b>Mitigation Assessment:</b><br>No change in the month of <b>January</b> .<br>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.<br>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>January</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>January</b> .                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                      |                                                                                   |                                                                                   |                                                                             |                |          |

## CRITICAL PATH SCHEDULE

The PFP C1 Critical Path Schedule is a resource-driven float path in which the critical path starts Asbestos abatement throughout 234-5Z, which leads to final Cold & Dark activities. This transitions 234-5Z to be ready for demolition. 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. CD-4 closeout will commence once the final glovebox is removed from RADTU in 234-5Z.

## 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   | 10/18/17        | 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 April 13, 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 22 day gain for the month of January. This is as a result of gained efficiencies on asbestos removal activities. However, unusual inclement weather, are continuing to impact the ability to demolish the facility. 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 94 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.

# RL-0011\_C1

## Contract Performance Reports

Format 1 - Work Breakdown Structure

Format 2 - Organizational Categories

Format 3 - Baseline

Format 4 - Staffing

Format 5 - Explanation and Problem Analysis



January 2017  
CHPRC-2017-01, 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<br>CH2M HILL Plateau Remediation Company   |  | a. NAME<br>Plateau Remediation Contract |  | a. NAME<br>MPB - RL_0011_C1 - PFP D&D (ARRA/Base)                                                                   |  | b. FROM (YYYYMMDD)<br>2016 / 12 / 26 |  |
| b. LOCATION (Address and ZIP Code)<br>Richland, WA |  | b. NUMBER<br>RL14788                    |  | b. PHASE                                                                                                            |  | b. TO (YYYYMMDD)<br>2017 / 01 / 22   |  |
| c. TYPE<br>CPAF                                    |  | d. SHARE RATIO                          |  | c. EVMS ACCEPTANCE<br>NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18 |  |                                      |  |

|                         |                  |                               |                                                    |                               |                            |                               |                                |                                          |                               |
|-------------------------|------------------|-------------------------------|----------------------------------------------------|-------------------------------|----------------------------|-------------------------------|--------------------------------|------------------------------------------|-------------------------------|
| <b>5. CONTRACT DATA</b> | a. QUANTITY<br>1 | b. NEGOTIATED COST<br>317,545 | c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK<br>0 | d. TARGET PROFIT/FEE<br>9,878 | e. TARGET PRICE<br>327,423 | f. ESTIMATED PRICE<br>344,656 | g. CONTRACT CEILING<br>327,423 | h. ESTIMATED CONTRACT CEILING<br>344,656 | 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)<br>Dickerson, Kala K |  | b. TITLE<br>Prime Contract Compliance Manager |  |
| a. BEST CASE<br>332,385                |  |                          |  |                                                |  | c. SIGNATURE                                               |  | d. DATE SIGNED (YYYYMMDD)                     |  |
| b. WORST CASE<br>335,162               |  |                          |  |                                                |  |                                                            |  |                                               |  |
| c. MOST LIKELY<br>334,778              |  | 317,545                  |  | -17,233                                        |  |                                                            |  |                                               |  |

| CAPN-PBS<br>Control Account-PARS 2 WBS (2)                  | 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) |                           |                         |             |               |                |               |
| ITEM (1)                                                    |                    |                    |                                |              |          |                    |                    |                                |               |           |                           |                         |             |               |                |               |
| RL-0011 Nuclear Mat Stab & Disp PFP                         | 0                  | 0                  | 0                              | 0            | 0        | 0                  | 0                  | 0                              | 0             | 0         | 0                         | 0                       | 0           | 0             | 0              |               |
| RL_0011_C1.02 Maintain Safe & Compliant PFP                 | 0                  | 0                  | 0                              | 0            | 0        | 0                  | 0                  | 0                              | 0             | 0         | 0                         | 0                       | 0           | 0             | 0              |               |
| RL_0011_C1.05 Disposition PFP Facility                      | 0                  | 101                | 14                             | 101          | 87       | 235,514            | 234,685            | 259,152                        | -830          | -24,467   | 0                         | 0                       | 0           | 235,514       | 259,598        | -24,084       |
| 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                                     |                    |                    |                                |              |          |                    |                    |                                |               |           |                           |                         |             |               |                |               |
| e. SUBTOTAL                                                 | 0                  | 101                | 14                             | 101          | 87       | 315,152            | 314,322            | 331,939                        | -830          | -17,617   | 0                         | 0                       | 0           | 315,152       | 332,385        | -17,233       |
| f. MANAGEMENT RESERVE                                       |                    |                    |                                |              |          |                    |                    |                                |               |           |                           |                         |             | 2,393         |                |               |
| g. TOTAL                                                    | 0                  | 101                | 14                             | 101          | 87       | 315,152            | 314,322            | 331,939                        | -830          | -17,617   | 0                         | 0                       | 0           | 317,545       |                |               |

|                                                      |  |  |  |  |  |  |  |  |  |      |         |  |         |         |         |
|------------------------------------------------------|--|--|--|--|--|--|--|--|--|------|---------|--|---------|---------|---------|
| <b>9. RECONCILIATION TO CONTRACT BUDGET BASELINE</b> |  |  |  |  |  |  |  |  |  |      |         |  |         |         |         |
| a. VARIANCE ADJUSTMENT                               |  |  |  |  |  |  |  |  |  |      |         |  |         |         |         |
| b. TOTAL CONTRACT VARIANCE                           |  |  |  |  |  |  |  |  |  |      |         |  |         |         |         |
|                                                      |  |  |  |  |  |  |  |  |  | -830 | -17,617 |  | 317,545 | 332,385 | -14,840 |

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

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<br>CH2M HILL Plateau Remediation Company   |  | a. NAME<br>Plateau Remediation Contract |  | a. NAME<br>MPB - RL_0011_C1 - PFP D&D (ARRA/Base)                                 |  | a. FROM (YYYYMMDD)<br>2016 / 12 / 26 |  |
| b. LOCATION (Address and ZIP Code)<br>Richland, WA |  | b. NUMBER<br>RL14788                    |  | b. PHASE                                                                          |  | b. TO (YYYYMMDD)<br>2017 / 01 / 22   |  |
| c. TYPE<br>CPAF                                    |  | d. SHARE RATIO                          |  | c. EVMS ACCEPTANCE<br>NO <input type="checkbox"/> X YES (YYYYMMDD) 2009 / 09 / 18 |  |                                      |  |

| WBS.Resp Org Group<br><br>ITEM<br>(1)                 | CURRENT PERIOD           |                          |                                         |                 |             |                          | CUMULATIVE TO DATE       |                                         |                  |              |                           |                               | REPROGRAMMING ADJUSTMENTS |                  |                   | AT COMPLETION    |  |  |
|-------------------------------------------------------|--------------------------|--------------------------|-----------------------------------------|-----------------|-------------|--------------------------|--------------------------|-----------------------------------------|------------------|--------------|---------------------------|-------------------------------|---------------------------|------------------|-------------------|------------------|--|--|
|                                                       | BUDGETED COST            |                          | ACTUAL<br>COST WORK<br>PERFORMED<br>(4) | VARIANCE        |             | BUDGETED COST            |                          | ACTUAL<br>COST WORK<br>PERFORMED<br>(9) | VARIANCE         |              | COST<br>VARIANCE<br>(12a) | SCHEDULE<br>VARIANCE<br>(12b) | BUDGET<br>(13)            | BUDGETED<br>(14) | ESTIMATED<br>(15) | VARIANCE<br>(16) |  |  |
|                                                       | WORK<br>SCHEDULED<br>(2) | WORK<br>PERFORMED<br>(3) |                                         | SCHEDULE<br>(5) | COST<br>(6) | WORK<br>SCHEDULED<br>(7) | WORK<br>PERFORMED<br>(8) |                                         | SCHEDULE<br>(10) | COST<br>(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                        | 101                      | 14                                      | 101             | 87          | 254,725                  | 253,895                  | 279,359                                 | -830             | -25,464      | 0                         | 0                             | 0                         | 254,725          | 279,805           | -25,080          |  |  |
| <b>b. COST OF MONEY</b>                               | 0                        | 0                        | 0                                       | 0               | 0           | 0                        | 0                        | 0                                       | 0                | 0            | 0                         | 0                             | 0                         | 0                | 0                 | 0                |  |  |
| <b>c. GENERAL AND ADMINISTRATIVE</b>                  | 0                        | 0                        | 0                                       | 0               | 0           | 0                        | 0                        | 0                                       | 0                | 0            | 0                         | 0                             | 0                         | 0                | 0                 | 0                |  |  |
| <b>d. UNDISTRIBUTED BUDGET</b>                        |                          |                          |                                         |                 |             |                          |                          |                                         |                  |              |                           |                               |                           | 0                | 0                 | 0                |  |  |
| <b>e. SUBTOTAL (Performance Measurement Baseline)</b> | 0                        | 101                      | 14                                      | 101             | 87          | 315,152                  | 314,322                  | 331,939                                 | -830             | -17,617      | 0                         | 0                             | 0                         | 315,152          | 332,385           | -17,233          |  |  |
| <b>f. MANAGEMENT RESERVE</b>                          |                          |                          |                                         |                 |             |                          |                          |                                         |                  |              |                           |                               |                           | 2,393            |                   |                  |  |  |
| <b>g. TOTAL</b>                                       | 0                        | 101                      | 14                                      | 101             | 87          | 315,152                  | 314,322                  | 331,939                                 | -830             | -17,617      | 0                         | 0                             | 0                         | 317,545          |                   |                  |  |  |

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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<br>CH2M HILL Plateau Remediation Company   |  | a. NAME<br>Plateau Remediation Contract |  | a. NAME<br>MPB - RL_0011_C1 - PFP D&D (ARRA/Base)                                                                   |  | a. FROM (YYYYMMDD)<br>2016 / 12 / 26 |  |
| b. LOCATION (Address and ZIP Code)<br>Richland, WA |  | b. NUMBER<br>RL14788                    |  | b. PHASE                                                                                                            |  | b. TO (YYYYMMDD)<br>2017 / 01 / 22   |  |
| c. TYPE<br>CPAF                                    |  | d. SHARE RATIO                          |  | c. EVMS ACCEPTANCE<br>NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18 |  |                                      |  |

| WBS.Resp Org Group<br><br>ORGANIZATIONAL<br>CATEGORY<br>(1) | ACTUAL<br>CURRENT<br>PERIOD<br>(2) | ACTUAL<br>END OF<br>CURRENT PERIOD<br>(Cumulative)<br>(3) | FORECAST (Non-Cumulative)                           |                       |                       |                       |                       |                        |                         |              |                 |                    |          | AT<br>COMPLETION<br>(15) |          |              |
|-------------------------------------------------------------|------------------------------------|-----------------------------------------------------------|-----------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|-------------------------|--------------|-----------------|--------------------|----------|--------------------------|----------|--------------|
|                                                             |                                    |                                                           | SIX MONTH FORECAST BY MONTH (Enter names of months) |                       |                       |                       |                       |                        | ENTER SPECIFIED PERIODS |              |                 |                    |          |                          |          |              |
|                                                             |                                    |                                                           | +1<br>FEB 2017<br>(4)                               | +2<br>MAR 2017<br>(5) | +3<br>APR 2017<br>(6) | +4<br>MAY 2017<br>(7) | +5<br>JUN 2017<br>(8) | +6<br>JULY 2017<br>(9) | REMAIN FY17<br>(10)     | FY18<br>(11) | FY19-LC<br>(12) | ATCOMPLETE<br>(13) |          |                          |          |              |
| 35 - Business Services                                      | 0                                  | 17                                                        | 0                                                   | 0                     | 0                     | 0                     | 0                     | 0                      | 0                       | 0            | 0               | 0                  | 0        | 0                        | 0        | 17           |
| 3B - PFP Closure Project                                    | 1                                  | 15407                                                     | 7                                                   | 7                     | 7                     | 0                     | 1                     | 3                      | 9                       | 0            | 0               | 0                  | 0        | 0                        | 0        | 15442        |
| <b>g. TOTAL DIRECT</b>                                      | <b>1</b>                           | <b>15424</b>                                              | <b>7</b>                                            | <b>7</b>              | <b>7</b>              | <b>0</b>              | <b>1</b>              | <b>3</b>               | <b>9</b>                | <b>0</b>     | <b>0</b>        | <b>0</b>           | <b>0</b> | <b>0</b>                 | <b>0</b> | <b>15459</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<br>CH2M HILL Plateau Remediation Company   |  | a. NAME<br>Plateau Remediation Contract |  | a. NAME<br>MPB - RL_0011_C1 - PFP D&D (ARRA/Base)        |  | a. FROM (YYYYMMDD)<br><br>2016/12/26 |  |
| b. LOCATION (Address and ZIP Code)<br>Richland, WA |  | b. NUMBER<br>RL14788                    |  | b. PHASE                                                 |  | b. TO (YYYYMMDD)<br><br>2017/01/22   |  |
| c. TYPE<br>CPAF                                    |  | d. SHARE RATIO                          |  | c. EVMS ACCEPTANCE<br>No X Yes (YYYYMMDD) 2009 / 09 / 18 |  |                                      |  |

**Direct Projects**

| 5. Evaluation | Budget     | Earned     | Actuals          | SV in \$        | SV in %            | CV in \$           | CV in % | SPI  | CPI  |
|---------------|------------|------------|------------------|-----------------|--------------------|--------------------|---------|------|------|
| Current:      | 0          | 101        | 14               | 101             | -                  | 87                 | 86%     | -    | 7.08 |
| Cumulative:   | 315,152    | 314,322    | 331,939          | -830            | -0.3%              | -17,617            | -5.6%   | 1.00 | 0.95 |
|               | <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:  | 315,152    | 332,385    | -17,233          | -5.5%           | -                  | 1.86               |         |      |      |

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

Current Period:  
Schedule Variance: Within Threshold

Cost Variance: The current month positive cost variance is associated with completing historical BCWS on fabrication of fixtures needed for glovebox removal, electrical isolations in A-line and C-line as well as the effort to remove the elephant foot for glovebox 7C in a more efficient manner than originally planned.

Cumulative To Date:  
Schedule Variance: Within Threshold  
Cost Variance: Within Threshold

**Impact:**

Schedule Impact: The RL-011.C1 project baseline completion date is January 16, 2016. The current schedule now reflects a completion date of October 18, 2017, resulting in a gain of 22 calendar days since January, 2016. This is as a result of the completion of ready for demolition activities on asbestos removal activities more efficiently and timely than assumed.

The current RL-11 performance schedule indicates that the PFP project will achieve slab-on-grade by August 16, 2017. The project gained 13 days since January, 2016. This is as a result of gained efficiencies on ready for demolition activities associated with asbestos removal. Impacts from snow days and realignment of team members diverting them to support higher critical path work continue to impact ability to recover schedule on ready for demolition activities in 234-5Z and 291-Z. Efficiencies have previously been identified in readying the 234-5Z facility for demolition wherein NDA and characterization data supports leaving more piping and ducting in place for demolition. In addition, efficiencies were recognized in 236-Z (PRF) wherein work was performed on filter boxes in parallel with the gallery gloveboxes allowing acceleration of the start of 236-Z demolition. This is turn accelerated when additional field team resources were reallocated from 236-Z to 234-5Z to get the facility ready for demolition. This is partially offset by delay in readying the 234-5Z facility for demolition as a result of lack of RCT resources. 234-5Z contains the gloveboxes requiring removal to meet the end state of the KPP and TPA milestone. The project expects to increase progress in the 234-5Z facility as all resources have been reassigned to complete the demo preparations in this facility. The PFP Project is currently on track to meet the re-negotiated TPA milestone M-083-00A due date of 9/30/17 for achieving slab-on-grade.

Cost Impact: The historical negative cost variance of ~\$17.6M and 5.6%, and CPI of .95 reflect impacts of the safety pauses, stop works, contamination events, and increased complexity of the HA-9A/HC-9B size reduction efforts. This variance is not considered recoverable. The cost variance is partially offset by recognized efficiencies in cleaning up the RMA/RMC control rooms after completion of the size reduction efforts of the 9A/9B gloveboxes. The EAC increased by \$31K the month of January which is insignificant.

Cost variance is not considered recoverable. As efficiencies continue to be recognized, the EAC will be adjusted. It is not expected that the cost variance will be recovered as there is only a small amount of scope remaining to complete the KPP.

**Corrective Action:**

No Corrective Actions Required

**No Corrective Actions Required**

- Schedule Margin Analysis: There is no schedule margin associated with the RL-011.C1 capital asset account.
- IMS Data dictionary Changes: None in the month of January.
- Forecast Schedule with No Baseline: None in the month of January.
- UB Balance: None in the month of January.
- Negative ACWP: None in the month of January.
- EAC Analysis: Best Case = \$332,386; Most Likely = \$334,779; Worst Case = \$335,162
- Negative CV > VAC: Scope to perform size reduction efforts on the high gram glovebox removal efforts was estimated to be completed in a much shorter time frame with much fewer resources than originally planned causing the large Cost Variance. The EAC is reflective of the current approach to perform the remaining work scope.
- MR Transactions: None in the month of January.
- Freeze Period Changes: None in the month of January.
- Retroactive Changes: None in the month of January.
- EVT Changes: None in the month of January.

Prepared by: \_\_\_\_\_ Date: \_\_\_\_\_ Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

# Appendix C

## Capital Asset Project

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



T. E. Bratvold  
Vice President for  
PFP Closure Project

January 2017  
CHPRC-2017-01, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

Progress continued to work toward CD-4 closure as teams continued to ready the Plutonium Finishing Plant (PFP) facilities for demolition. Demolition on the Plutonium Reclamation Facility (PRF) facility began on November 8, 2016. 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                      | -                         |
| Complete Demolition of 242-Z                                              | -                         | -                            | 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

- Continued demolition activities on 236-Z Facility
- Completed demolition of building 242-ZA.

## MAJOR ISSUES

On October 24, 2016, a stop work was issued at PFP on the use of Mine Safety Appliance, OptimAir TL powered air purifying respirators (PAPRs). The stop work was the result of the discovery of paint inside the blower housing (past the filter). Upon further investigation, it was discovered that with the Mine Safety Appliance (MSA) OptimAir TL PAPR in configuration of using the chemical-OV cartridges in conjunction with the “bumper guard,” there was no seal between the filter and the blower, allowing air to bypass the filter.

### Corrective Action:

- All in service MSA OptimAir TL PAPRs at PFP were removed from service.
- An intrusive survey of the internals of several PAPRs were conducted.
- New PAPRs were put into service.
- Initiated an investigation of the affected time period in which this configuration was utilized.

**Status:**

- Collecting air sample data for the time period in which this configuration was worn.
- PFP continues to collect air sample data associated with the use of the bumper guard in conjunction with the Chemical-OV cartridge.
- Completed list of employees that were issued chemical-OV cartridges during the time period in which bumper guards were used at PFP.
- Continue to collect survey/air sample data from effected time period.

## 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<br>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 stoplight chart:</b><br>No major changes to the monthly stoplight chart in the month of <b>January</b> . |                                                                                                                                                                                                                                                                                                                                        |                                                    |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                       |           |         |   |                               |            |          |   |
| <b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>                                                                                |                                                                                                                                                                                                                                                                                                                                        |                                                    |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                       |           |         |   |                               |            |          |   |
| PFP-DEMO-23:<br>Demolition<br>Equipment<br>Reliability and<br>Modification                                                                                      | Ineffective demolition equipment attachments or mechanical failures impact the demolition of PFP. Equipment modification, leasing, or replacement will be required resulting in cost impacts<br><b>Risk Handling Strategy:</b> Accept<br><br><b>Probability:</b> Medium (26% to 74%)<br><b>Worst Case Impacts:</b> \$1 million, 66 day | <span style="color: red; font-size: 2em;">●</span> | <span style="color: blue; font-size: 2em;">↑</span> | <b>Risk Event:</b><br>This risk was realized when additional demolition equipment (telescoping fogger) was identified to be needed to mitigate the spread of contamination during demolition efforts. Excessive water puddling has caused issues in the drain systems and allowed water to enter into PFP facilities raising the risk of losing contamination control. The fogger has the potential to become contaminated so leasing is not an option and no other projects have one to loan.<br><br><table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="text-align: left;">Risk Recovery Actions</th> <th>Risk Date</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Receipt of telescoping fogger</td> <td>11/30/2016</td> <td>03/09/17</td> <td>0</td> </tr> </tbody> </table> <b>Recovery Action Assessment:</b><br><span style="color: red;">No changes in the month of January.</span><br>Due to the conditions listed above, this risk has been realized and additional equipment is required. The project will procure a telescoping fogger to mitigate the spread of contamination during demolition. The purchase of this equipment was completed by utilizing management reserve and implementing a BCR in the month of December. Receipt of the fogger is projected in March 2017. | Risk Recovery Actions | Risk Date | FC Date | % | Receipt of telescoping fogger | 11/30/2016 | 03/09/17 | 0 |
| Risk Recovery Actions                                                                                                                                           | Risk Date                                                                                                                                                                                                                                                                                                                              | FC Date                                            | %                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                       |           |         |   |                               |            |          |   |
| Receipt of telescoping fogger                                                                                                                                   | 11/30/2016                                                                                                                                                                                                                                                                                                                             | 03/09/17                                           | 0                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                       |           |         |   |                               |            |          |   |

| Risk Title<br>Risk Owner                                                                                                                                                                                                                                                                                                                                          | Unmitigated Risk Impacts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Assessment                                                                          |                                                                                     | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                       |           |         |                                                     |                                                                                         |            |                                                                                                                   |          |   |                                                                                                             |          |     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------|---------|-----------------------------------------------------|-----------------------------------------------------------------------------------------|------------|-------------------------------------------------------------------------------------------------------------------|----------|---|-------------------------------------------------------------------------------------------------------------|----------|-----|
|                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Month                                                                               | Trend                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |           |         |                                                     |                                                                                         |            |                                                                                                                   |          |   |                                                                                                             |          |     |
| <b>RL-0011/WBS-011.05.C3 (CAP.2)</b>                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |           |         |                                                     |                                                                                         |            |                                                                                                                   |          |   |                                                                                                             |          |     |
| PFP-DEMO-05:<br>Inclement Weather                                                                                                                                                                                                                                                                                                                                 | Inclement weather, including moderate winds, low or high temperatures and thunderstorms will impact the demolition of PFP.<br><b>Risk Handling Strategy:</b> Accept<br><br><b>Probability:</b> Medium (26% to 74%)<br><b>Worst Case Impacts:</b> \$0K, 32 days<br><br>*Cost increase will result in cost per day impacts from crews, and hotel load.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |    |    | <p><b>Risk Event:</b> This risk was realized during the months of December and January due to winter weather limiting demolition activities and causing site closures/early releases.</p> <table border="1"> <thead> <tr> <th>Risk Recovery Actions</th> <th>Risk Date</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>12/14/2016</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b><br/>Winter weather continues to impact PFP demolition activities. During the month of January, the project incurred site closure days on January 9th, 18th, and 19th. There were also three-hour delays or early release on January 3rd, 10th, 11th, 17th and 23rd. The PFP project was also impacted due to increased snow removal, frozen water lines, and weather/temperature restrictions (freezing temperatures) on demolition activities. The PFP project will continue to adjust daily work scope to plan for projected weather impacts.</p>                                          | Risk Recovery Actions | Risk Date | FC Date | %                                                   | Obtain weather conditions for the area and adjust daily work scope/schedule accordingly | 12/14/2016 | Ongoing                                                                                                           | N/A      |   |                                                                                                             |          |     |
| Risk Recovery Actions                                                                                                                                                                                                                                                                                                                                             | Risk Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | FC Date                                                                             | %                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |           |         |                                                     |                                                                                         |            |                                                                                                                   |          |   |                                                                                                             |          |     |
| Obtain weather conditions for the area and adjust daily work scope/schedule accordingly                                                                                                                                                                                                                                                                           | 12/14/2016                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Ongoing                                                                             | N/A                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |           |         |                                                     |                                                                                         |            |                                                                                                                   |          |   |                                                                                                             |          |     |
| <b>Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)</b>                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |           |         |                                                     |                                                                                         |            |                                                                                                                   |          |   |                                                                                                             |          |     |
| <b>FY2017 Risk Triggers (Risk could be realized in FY2017)</b>                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |           |         |                                                     |                                                                                         |            |                                                                                                                   |          |   |                                                                                                             |          |     |
| PFP-DEMO-21:<br>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.<br><b>Risk Handling Strategy:</b> Accept<br><br><b>Probability:</b> Low (10% to 25%)<br><b>Worst Case Impacts:</b> \$150K, 30 days                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |    | <p><b>Risk Trigger:</b> During pre-demolition/demolition activities in FY2017.</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><br/>No changes in the month of January. 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.</p>                                                                                                                                                                                                                                                                                                                          | Mitigation action(s)  | FC Date   | %       | None identified at this time.                       | N/A                                                                                     | N/A        |                                                                                                                   |          |   |                                                                                                             |          |     |
| Mitigation action(s)                                                                                                                                                                                                                                                                                                                                              | FC Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | %                                                                                   |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |           |         |                                                     |                                                                                         |            |                                                                                                                   |          |   |                                                                                                             |          |     |
| None identified at this time.                                                                                                                                                                                                                                                                                                                                     | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | N/A                                                                                 |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |           |         |                                                     |                                                                                         |            |                                                                                                                   |          |   |                                                                                                             |          |     |
| PFP-DEMO-07:<br>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.<br><b>Risk Handling Strategy:</b> Control<br><br><b>Probability:</b> Likely (75% to 90%)<br><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>0</td> </tr> <tr> <td>Apply fixative to internals of equipment intended to be removed during demolition to contain contamination.</td> <td>Complete</td> <td>100</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b><br/>No changes in the month of January. 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 | 0 | Apply fixative to internals of equipment intended to be removed during demolition to contain contamination. | Complete | 100 |
| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0                                                                                   |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |           |         |                                                     |                                                                                         |            |                                                                                                                   |          |   |                                                                                                             |          |     |
| Apply fixative to internals of equipment intended to be removed during demolition to contain contamination.                                                                                                                                                                                                                                                       | Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 100                                                                                 |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |           |         |                                                     |                                                                                         |            |                                                                                                                   |          |   |                                                                                                             |          |     |
| <b>High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)</b>                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |           |         |                                                     |                                                                                         |            |                                                                                                                   |          |   |                                                                                                             |          |     |
| No high threat value risks identified in the month of January.                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |           |         |                                                     |                                                                                         |            |                                                                                                                   |          |   |                                                                                                             |          |     |
| <b>Unassigned Risks (Pending ownership of identified risks/opportunities)</b>                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |           |         |                                                     |                                                                                         |            |                                                                                                                   |          |   |                                                                                                             |          |     |
| To ensure success of the project ownership needs to be established to further identify and address potential impacts to project cost and schedule. There are cases when risks are identified but are outside the control and management of the contractor. However, CHPRC risk management process identifies all risks that could impact overall project success. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |           |         |                                                     |                                                                                         |            |                                                                                                                   |          |   |                                                                                                             |          |     |
| PFP-DEMO-18:<br>Level of Readiness Effort                                                                                                                                                                                                                                                                                                                         | PFP Demolition activities and hazard categorization provide for a Readiness Assessment (RA); however, due to the first-of-its-kind project at the Hanford Site, CHPRC will be directed by the customer to perform a more rigorous RA than planned resulting in cost impacts and schedule delays.<br><br><b>CHPRC Comment:</b> The rework required between the first submittal on May 26, 2015, through the resubmittal on August 27, 2015, and subsequent approval on October 8, 2015, has increased cost of demolition and impacted schedule. The additional cost is due to a technical difference in the readiness scoring by RL that is not consistent with historical scoring. The addition of a readiness team and performance of an exercise versus a drill have impacted the project. The additional requirements may represent realization of previously identified risk PRC-010, Requirements Change. Accordingly, CHPRC is entitled to an adjustment to cost and fee to implement the direction. In December, a notice of change was sent to RL for the potential change. The letter was re-submitted based on RL feedback. The project continues to wait for direction from RL and will revisit after completion of the RA as actual costs will be able to be compiled. |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |           |         |                                                     |                                                                                         |            |                                                                                                                   |          |   |                                                                                                             |          |     |

## CRITICAL PATH SCHEDULE

The PFP Critical Path Schedule is a resource-driven float path in which the critical path starts Asbestos abatement throughout 234-5Z, which leads to final Cold & Dark activities. This transitions 234-5Z to be ready for demolition. 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. This leads to post-demolition demobilization and the final CD-4 closeout of the project.

## 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------|---------------------------------------------|------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RL-011.C2 | Completion Demolition of all PFP Facilities | 8/31/18    | 1/11/18         | 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 1, 2016, and completion of demolition activities will occur in August 2017. There was a gain of 13 days for the month of December. This is as a result of gained efficiencies on asbestos removal activities. 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 94 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)

None to report at this time.

## DOE ACTIONS / DECISIONS

None to report at this time.

# RL-0011\_C2

## Contract Performance Reports

Format 1 - Work Breakdown Structure

Format 2 - Organizational Categories

Format 3 - Baseline

Format 4 - Staffing

Format 5 - Explanation and Problem Analysis



January 2017  
CHPRC-2017-01, 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<br>CH2M HILL Plateau Remediation Company           |                              | a. NAME<br>Plateau Remediation Contract            |                                | a. NAME<br>RL 0011_C2 PFP Demolition Capital Asset Project |                              |                                                            | a. FROM (YYYYMMDD)<br>2016 / 12 / 26    |                                               |               |           |                           |                         |             |               |                |               |
| b. LOCATION (Address and ZIP Code)<br>Richland, WA         |                              | b. NUMBER<br>RL14788                               |                                | b. PHASE                                                   |                              |                                                            | b. TO (YYYYMMDD)<br>2017 / 01 / 22      |                                               |               |           |                           |                         |             |               |                |               |
|                                                            |                              | c. TYPE<br>CPAF                                    |                                | d. SHARE RATIO                                             |                              | c. EVMS ACCEPTANCE                                         |                                         |                                               |               |           |                           |                         |             |               |                |               |
|                                                            |                              |                                                    |                                |                                                            |                              | NO X YES (YYYYMMDD) 2009 / 09 / 18                         |                                         |                                               |               |           |                           |                         |             |               |                |               |
| <b>5. CONTRACT DATA</b>                                    |                              |                                                    |                                |                                                            |                              |                                                            |                                         |                                               |               |           |                           |                         |             |               |                |               |
| a. QUANTITY<br>1                                           | b. NEGOTIATED COST<br>51,683 | c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK<br>0 | d. TARGET PROFIT/FEE<br>5,000  | e. TARGET PRICE<br>56,683                                  | f. ESTIMATED PRICE<br>49,180 | g. CONTRACT CEILING<br>56,683                              | h. ESTIMATED CONTRACT CEILING<br>49,180 | 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)<br>Dickerson, Kala K |                                         | b. TITLE<br>Prime Contract Compliance Manager |               |           |                           |                         |             |               |                |               |
| a. BEST CASE                                               |                              | 41,082                                             |                                |                                                            |                              | c. SIGNATURE                                               |                                         | d. DATE SIGNED (YYYYMMDD)                     |               |           |                           |                         |             |               |                |               |
| b. WORST CASE                                              |                              | 57,877                                             |                                |                                                            |                              |                                                            |                                         |                                               |               |           |                           |                         |             |               |                |               |
| c. MOST LIKELY                                             |                              | 44,180                                             | 51,683                         | 7,504                                                      |                              |                                                            |                                         |                                               |               |           |                           |                         |             |               |                |               |
| <b>8. PERFORMANCE DATA</b>                                 |                              |                                                    |                                |                                                            |                              |                                                            |                                         |                                               |               |           |                           |                         |             |               |                |               |
| CAPN.PBS<br>Control Account.PARS 2 WBS (2)<br><br>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      |           | ADJUSTMENTS               |                         |             | 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) | COST VARIANCE (12a)       | SCHEDULE VARIANCE (12b) | BUDGET (13) |               |                |               |
| RL-0011 Nuclear Mat Stab & Disp PFP                        |                              |                                                    |                                |                                                            |                              |                                                            |                                         |                                               |               |           |                           |                         |             |               |                |               |
| RL_0011_C2.05 Disposition PFP Facility                     | 1,951                        | 355                                                | 1,827                          | -1,596                                                     | -1,472                       | 47,114                                                     | 11,514                                  | 16,238                                        | -35,600       | -4,725    | 0                         | 0                       | 0           | 48,586        | 41,082         | 7,504         |
| 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                                                | 1,951                        | 355                                                | 1,827                          | -1,596                                                     | -1,472                       | 47,114                                                     | 11,514                                  | 16,238                                        | -35,600       | -4,725    | 0                         | 0                       | 0           | 48,586        | 41,082         | 7,504         |
| f. MANAGEMENT RESERVE                                      |                              |                                                    |                                |                                                            |                              |                                                            |                                         |                                               |               |           |                           |                         |             | 3,097         |                |               |
| g. TOTAL                                                   | 1,951                        | 355                                                | 1,827                          | -1,596                                                     | -1,472                       | 47,114                                                     | 11,514                                  | 16,238                                        | -35,600       | -4,725    | 0                         | 0                       | 0           | 51,683        |                |               |
| <b>9. RECONCILIATION TO CONTRACT BUDGET BASELINE</b>       |                              |                                                    |                                |                                                            |                              |                                                            |                                         |                                               |               |           |                           |                         |             |               |                |               |
| a. VARIANCE ADJUSTMENT                                     |                              |                                                    |                                |                                                            |                              |                                                            |                                         |                                               |               |           |                           |                         |             |               |                |               |
| b. TOTAL CONTRACT VARIANCE                                 |                              |                                                    |                                |                                                            |                              |                                                            |                                         |                                               |               |           |                           |                         |             | 51,683        | 41,082         | 10,601        |

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<br>CH2M HILL Plateau Remediation Company   |  | a. NAME<br>Plateau Remediation Contract |  | a. NAME<br>RL 0011 C2 PFP Demolition Capital Asset Project                        |  | a. FROM (YYYYMMDD)<br>2016 / 12 / 26 |  |
| b. LOCATION (Address and ZIP Code)<br>Richland, WA |  | b. NUMBER<br>RL14788                    |  | b. PHASE                                                                          |  | b. TO (YYYYMMDD)<br>2017 / 01 / 22   |  |
| c. TYPE<br>CPAF                                    |  | d. SHARE RATIO                          |  | c. EVMS ACCEPTANCE<br>NO <input type="checkbox"/> X YES (YYYYMMDD) 2009 / 09 / 18 |  |                                      |  |

| WBS.Resp Org Group<br><br>ITEM<br>(1)          | CURRENT PERIOD     |                    |                  |              |          | CUMULATIVE TO DATE |                    |                  |               |           | REPROGRAMMING ADJUSTMENTS |                   |        | AT COMPLETION |           |          |
|------------------------------------------------|--------------------|--------------------|------------------|--------------|----------|--------------------|--------------------|------------------|---------------|-----------|---------------------------|-------------------|--------|---------------|-----------|----------|
|                                                | BUDGETED COST      |                    | ACTUAL COST WORK | VARIANCE     |          | BUDGETED COST      |                    | ACTUAL COST WORK | VARIANCE      |           | COST VARIANCE             | SCHEDULE VARIANCE | BUDGET | BUDGETED      | ESTIMATED | VARIANCE |
|                                                | WORK SCHEDULED (2) | WORK PERFORMED (3) | (4)              | SCHEDULE (5) | COST (6) | WORK SCHEDULED (7) | WORK PERFORMED (8) | (9)              | SCHEDULE (10) | COST (11) | (12a)                     | (12b)             | (13)   | (14)          | (15)      | (16)     |
| 3B - PFP Closure Project                       | 1,951              | 355                | 1,827            | -1,596       | -1,472   | 47,114             | 11,514             | 16,238           | -35,600       | -4,725    | 0                         | 0                 | 0      | 48,586        | 41,082    | 7,504    |
| 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) | 1,951              | 355                | 1,827            | -1,596       | -1,472   | 47,114             | 11,514             | 16,238           | -35,600       | -4,725    | 0                         | 0                 | 0      | 48,586        | 41,082    | 7,504    |
| f. MANAGEMENT RESERVE                          |                    |                    |                  |              |          |                    |                    |                  |               |           |                           |                   |        | 3,097         |           |          |
| g. TOTAL                                       | 1,951              | 355                | 1,827            | -1,596       | -1,472   | 47,114             | 11,514             | 16,238           | -35,600       | -4,725    | 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<br>CH2M HILL Plateau Remediation Company   |  | a. NAME<br>Plateau Remediation Contract |  | a. NAME<br>RL 0011_C2 PFP Demolition Capital Asset Project                                                          |  | a. FROM (YYYYMMDD)<br>2016 / 12 / 26 |  |
| b. LOCATION (Address and ZIP Code)<br>Richland, WA |  | b. NUMBER<br>RL14788                    |  | b. PHASE                                                                                                            |  | b. TO (YYYYMMDD)<br>2017 / 01 / 22   |  |
| c. TYPE<br>CPAF                                    |  | d. SHARE RATIO                          |  | c. EVMS ACCEPTANCE<br>NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (YYYYMMDD) 2009 / 09 / 18 |  |                                      |  |

| 5. PERFORMANCE DATA                                         |                                    |                                                           |                                                     |                       |                       |                       |                       |                        |                         |              |                 |                    |                          |            |
|-------------------------------------------------------------|------------------------------------|-----------------------------------------------------------|-----------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|-------------------------|--------------|-----------------|--------------------|--------------------------|------------|
| WBS.Resp Org Group<br><br>ORGANIZATIONAL<br>CATEGORY<br>(1) | ACTUAL<br>CURRENT<br>PERIOD<br>(2) | ACTUAL<br>END OF<br>CURRENT PERIOD<br>(Cumulative)<br>(3) | FORECAST (Non-Cumulative)                           |                       |                       |                       |                       |                        |                         |              |                 |                    | AT<br>COMPLETION<br>(15) |            |
|                                                             |                                    |                                                           | SIX MONTH FORECAST BY MONTH (Enter names of months) |                       |                       |                       |                       |                        | ENTER SPECIFIED PERIODS |              |                 |                    |                          |            |
|                                                             |                                    |                                                           | +1<br>FEB 2017<br>(4)                               | +2<br>MAR 2017<br>(5) | +3<br>APR 2017<br>(6) | +4<br>MAY 2017<br>(7) | +5<br>JUN 2017<br>(8) | +6<br>JULY 2017<br>(9) | REMAIN FY17<br>(10)     | FY18<br>(11) | FY19-LC<br>(12) | ATCOMPLETE<br>(13) |                          |            |
| 3B - PFP Closure Project                                    | 20                                 | 207                                                       | 40                                                  | 41                    | 39                    | 77                    | 105                   | 112                    | 134                     | 134          | 41              | 0                  | 0                        | 795        |
| <b>g. TOTAL DIRECT</b>                                      | <b>20</b>                          | <b>207</b>                                                | <b>40</b>                                           | <b>41</b>             | <b>39</b>             | <b>77</b>             | <b>105</b>            | <b>112</b>             | <b>134</b>              | <b>134</b>   | <b>41</b>       | <b>0</b>           | <b>0</b>                 | <b>795</b> |

CLASSIFICATION (When Filled In)

| CLASSIFICATION (When Filled In)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |               |                                         |                                                          |                 |                                                            |                    |                |                                  |                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------|----------------------------------------------------------|-----------------|------------------------------------------------------------|--------------------|----------------|----------------------------------|------------------------------------|
| CONTRACT PERFORMANCE REPORT<br>FORMAT 5 - Explanations and Problem Analysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               |                                         |                                                          |                 |                                                            |                    |                |                                  | FORM APPROVED<br>OMB No. 0704-0188 |
| <b>1. CONTRACTOR</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               | <b>2. CONTRACT</b>                      |                                                          |                 | <b>3. PROGRAM</b>                                          |                    |                | <b>4. REPORT PERIOD</b>          |                                    |
| a. NAME<br>CH2M HILL Plateau Remediation Company                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               | a. NAME<br>Plateau Remediation Contract |                                                          |                 | a. NAME<br>RL_0011_C2 PFP Demolition Capital Asset Project |                    |                | a. FROM (YYYYMMDD)<br>2016/12/26 |                                    |
| b. LOCATION (Address and ZIP Code)<br>Richland, WA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |               | b. NUMBER<br>RL14788                    |                                                          |                 | b. PHASE                                                   |                    |                | b. TO (YYYYMMDD)<br>2017/01/22   |                                    |
| c. TYPE<br>CPAF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |               | d. SHARE RATIO                          | c. EVMS ACCEPTANCE<br>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:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1,951.5       | 355.3                                   | 1,827.0                                                  | -1,596.2        | -81.8%                                                     | -1,471.7           | -414.2%        | 0.18                             | 0.19                               |
| Cumulative:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 47,113.8      | 11,513.7                                | 16,238.4                                                 | -35,600.1       | -75.6%                                                     | -4,724.7           | -41.0%         | 0.24                             | 0.71                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <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:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 48,585.9      | 41,082.3                                | 7,503.7                                                  | 15.4%           | 1.15                                                       | 1.49               |                |                                  |                                    |
| <b>Explanation of Variance/Description of Problem:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |               |                                         |                                                          |                 |                                                            |                    |                |                                  |                                    |
| Current Month:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               |                                         |                                                          |                 |                                                            |                    |                |                                  |                                    |
| Schedule Variance: The current month negative schedule variance is associated with the delay in the demobilization and installation of the cover cap following demolition. This work is significantly impacted due to delays in getting 236-Z, 242-Z, 291-Z, and 234-5Z ready for demolition and cannot occur until all buildings are demolished. In addition, the Hanford Site is experiencing an unusually severe winter weather causing unplanned work delays, closures and frigid temperatures causing the inability to operate the heavy equipment. Weather impacts resulted in the ability to only work one normal dayshift and two overtime shifts for the entire month of January.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |               |                                         |                                                          |                 |                                                            |                    |                |                                  |                                    |
| Cost Variance: The current month cost variance is due to significant down time for demolition due to significant winter weather on the Hanford Site during the month. The weather limited the demolition team to perform work on 236-Z and 242-Z to one day shift and two overtime shifts for the entire month. The remaining of the month was impacted by 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               |                                         |                                                          |                 |                                                            |                    |                |                                  |                                    |
| 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) and increased characterization efforts. The contract to date negative schedule variance is due to work scope associated with the demolition of 236-Z, 242-Z, 291-Z, and 234-5Z not being performed as originally scheduled. The demolition of these facilities has been delayed due to resources being redirected to support ready for demolition activities (project critical path work). 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 and demolition of 242-ZA.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               |                                         |                                                          |                 |                                                            |                    |                |                                  |                                    |
| 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 January 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 are being 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 to the weather impacts. This is partially offset by recognized efficiencies associated with the demolition of the 2727-Z and 2729-Z facilities. |               |                                         |                                                          |                 |                                                            |                    |                |                                  |                                    |
| <b>Impact:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               |                                         |                                                          |                 |                                                            |                    |                |                                  |                                    |
| Schedule Impact: Work efforts in getting 234-5Z ready for Cold & Dark resulted in a gain of 13 days since January to the critical path to achieving the CD-4 closeout. This is as a result of recognized efficiencies on asbestos removal activities. 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. Finally, subcontracted MSA resources specializing in facility demolition continue to charge the project until ready for demo status is achieved. Mitigation actions are being reviewed and, when finalized, will be put in place to partially recover the cost impact.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |                                         |                                                          |                 |                                                            |                    |                |                                  |                                    |
| 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. The projected net EAC impact of \$1.7M since January is the result of adjustment of needed consumable materials required to repair the demolition equipment during the unusually cold temperatures.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |                                         |                                                          |                 |                                                            |                    |                |                                  |                                    |
| <b>Corrective Action:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |                                         |                                                          |                 |                                                            |                    |                |                                  |                                    |
| 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 Mike Douglas 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 mitigation 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 4/30/2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |                                         |                                                          |                 |                                                            |                    |                |                                  |                                    |
| 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               |                                         |                                                          |                 |                                                            |                    |                |                                  |                                    |
| <b>Monthly Summary (to include technical causes of VARS, Impacts) and Corrective Action(s):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |               |                                         |                                                          |                 |                                                            |                    |                |                                  |                                    |
| 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 February 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 January                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               |                                         |                                                          |                 |                                                            |                    |                |                                  |                                    |
| 3. Forecast Schedule with No Baseline: No change in the month of January                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |               |                                         |                                                          |                 |                                                            |                    |                |                                  |                                    |
| 4. UB Balance: No change in the month of January                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               |                                         |                                                          |                 |                                                            |                    |                |                                  |                                    |
| 5. Negative ACWP: No change in the month of January                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |                                         |                                                          |                 |                                                            |                    |                |                                  |                                    |
| 6. EAC Analysis: Best Case = \$41,082; Most Likely = \$44,180; Worst Case = \$57,877                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               |                                         |                                                          |                 |                                                            |                    |                |                                  |                                    |
| 7. Negative CV > VAC: No change in the month of January                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               |                                         |                                                          |                 |                                                            |                    |                |                                  |                                    |
| 8. MR Transactions: No change in the month of January                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |                                         |                                                          |                 |                                                            |                    |                |                                  |                                    |
| 9. Freeze Period Changes: No change in the month of January                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               |                                         |                                                          |                 |                                                            |                    |                |                                  |                                    |
| 10. Retroactive Changes: No change in the month of January                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |               |                                         |                                                          |                 |                                                            |                    |                |                                  |                                    |
| 11. EVT Changes: No change in the month of January                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |                                         |                                                          |                 |                                                            |                    |                |                                  |                                    |
| <b>Prepared by:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |                                         |                                                          | <b>Date:</b>    |                                                            |                    |                | <b>Approved by:</b>              | <b>Date:</b>                       |

**Appendix C**  
**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**  
**(KBO&PR)**

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

**January 2017**  
**CHPRC-2017-01, Rev. 0**  
**Contract DE-AC06-08RL14788**  
**Deliverable C.3.1.3.1 - 1**



## PROJECT SUMMARY

1. Based upon discussions between RL and CHPRC Senior Management, the Sludge Treatment Plant (STP) Team has modified the field execution schedule (FES) to implement acceleration opportunities that could potentially facilitate the transfer of all sludge to T Plant in fiscal year (FY) 2018. 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 schedule duration.
  - Reduced approval time on T Plant safety documentation is necessary.
  - CD-4 approval must occur concurrently with commencing sludge retrieval operations.
  - Approval of integrated 105K West Documented Safety Analysis (DSA) will occur within 120 days of submittal.
2. CHPRC staff continued to close comments with individual Safety Basis Review Team (SBRT) members on the 105K West Facility DSA and technical safety requirement (TSR) documents. Proposed resolutions are in development. CHPRC staff will continue to work with the SBRT to address comments as efficiently as possible, with the expectation that the activities in the Field Execution Schedule can be met. The DSA/TSR must be approved and implemented prior to integrated K Basin Preoperational Acceptance Testing (KPAT) activities that transfer 105K West Basin water into the 105K West Annex.

## KEY ACCOMPLISHMENTS

### **RL-0012 C1 1 Accomplishments**

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

- Engineered Container Retrieval and Transfer System (ECRTS) Process Equipment Procurement:
  - o Procurement Set #8: Sludge Transport & Storage Container (STSC) Vessels – ABW personnel have been evaluating the change orders associated with delivery of 24 STSCs that are free of iron contamination. Once CHPRC and ABW agree on the outstanding change orders, ABW & HiLine will proceed with testing and cleaning activities on STSC 402-409. ABW continues to make excellent progress on the fabrication of STSC vessels #414-424 within the provision of the contract/corrective action plan.
  - o Procurement Set #9: Safety Significant STSC Assemblies (Instrumentation & Appurtenances) – CHPRC personnel have approved the Becht Engineering model/calculation that provides the seismic response spectra, which will be utilized when testing the STSC Instrumentation & Appurtenances. A third completed STSC assembly was delivered to MASF and will be temporarily stored there pending a more permanent STSC storage location.
  - o Maintenance and Storage Facility (MASF) Facility –  
The MASF test team completed the effort to re-establish the ECRTS mockup and finalized leak testing of the spare ECRTS production equipment. The Joint Test Group (JTG) continued their review of the MASF Pre-Operational Acceptance Test (MPAT) final test report. Two sessions were held with solid progress achieved. Solid progress is also being made on producing the documentation to support the K-Basin Preoperational Acceptance Test (KPAT) at the 105KW Basin/Annex early next calendar year.

**PTS Accomplishments**

- Field Work
  - o KW Annex Construction
    - Continued installation of Truck Scale Trailer Bumpers and Loading Dock Guard railing.
    - Truck scale calibration completed.
    - Performed final welds and tie-in for Nitrogen System.
    - Final positioned and secured Nitrogen System bottle racks.
    - Completed nitrogen system high-pressure leak test.
    - Continued air dryer exhaust modification.
    -
  - o KW Basin In Basin Modifications Construction
    - Set continuous air monitors in the Basin and completed final power tie-in for radiation monitoring system.
    - Removed scaffolding that supported electrical installation and started demobilization efforts.

## MAJOR ISSUES

**Sludge Removal Project****Issue 1:**

Based upon iron contamination discoveries in STSC 402, 403, and 410-413, ABW was instructed to conduct free iron testing of all remaining STSCs (STSC 404-409 & 414-424).

**Corrective Action:**

ABW and CHPRC Technical Staff have developed procedures to aggressively remove iron contamination from STSCs and validate cleanliness via free iron testing of all 12 STSCs fabricated in FY2016 (first production run) and all 11 STSCs being fabricated in FY2017 (second production run).

**Status:**

1. STSC 410-413 were cleaned, retested, and accepted by CHPRC - Complete.
2. CHPRC has completed a causal analysis, which provides the basis for settling outstanding change orders and resolving this issue - Complete.
3. STSC 402-403 remain at HiLine (with instrumentation/appurtenances installed) and will be tested, cleaned, and retested by HiLine personnel, due to the difficulty and expense of returning these vessels to Arlington, WA, with instrumentation and appurtenance installed. Anticipate this work starting in February.
4. STSC 404-409 have been shipped back to Arlington, WA, for testing, cleaning, and retesting, as appropriate. This work scope is on hold until CHPRC and ABW reach agreement on a change order. Anticipate this work commencing in February.
5. STSC 414-424 will be tested for free-iron, cleaned, and retested, as appropriate – forecasted delivery 09/17.

**Issue 2:**

The schedule for resolving DOE-RL Safety Basis Review Team (SBRT) comments on the 105K West Basin/Annex DSA/TSR is slipping putting the activity in jeopardy of negatively impacting the KPAT Integrated Test.

**Corrective Action:**

Continue working closely with the DOE-RL SBRT to resolve comments prior to the end of February. Expedite comment incorporation, CHPRC internal approval of the update DSA/TSR Package, and DOE-RL approval of that package.

**Status:**

CHPRC is forecasting a completion date for having all DOE-RL SBRT comments incorporated by February 22, 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 spotlight chart:</b><br>No major changes to the monthly spotlight chart in the month of <b>January</b> . |                                                                                                                                                                                                                                                                                                                                          |                                                    |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         |           |         |   |                                                                                         |          |         |     |                                                                                |         |        |    |                                  |         |         |    |                                |         |         |   |
| <b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>                                                                                |                                                                                                                                                                                                                                                                                                                                          |                                                    |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         |           |         |   |                                                                                         |          |         |     |                                                                                |         |        |    |                                  |         |         |    |                                |         |         |   |
| STP-072:<br>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.<br><br><b>Risk Handling Strategy:</b> Control<br><br><b>Probability:</b> Medium (26% to 74%)<br><b>Worst Case Impacts:</b> \$3,000K 120 days | <span style="color: red; font-size: 2em;">●</span> |       | <p><b>Risk Event:</b><br/>Event 1: Rust was discovered in STSCs. As a result, additional testing and cleaning is required to correct this condition.<br/>Event 2: 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" 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>Event 1 - Finalize Field FES activities dates consistent with change orders</td> <td>5/13/16</td> <td>2/28/17</td> <td>70</td> </tr> <tr> <td>Event 2 – Establish Scope of STS Cask Rework and Submit Change Order to HiLine</td> <td>12/7/16</td> <td>2/2/17</td> <td>85</td> </tr> <tr> <td>Complete Procurement/Fabrication</td> <td>12/7/16</td> <td>2/30/17</td> <td>25</td> </tr> <tr> <td>Deliver equipment to 100K Area</td> <td>12/7/16</td> <td>3/30/17</td> <td>0</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b><br/>Event 1: STSCs 410-413 were successfully cleaned and shipped to the Hanford site. ABW is on hold for further cleaning until a CO for STSCs 410-413 is settled with CHPRC, explaining the slip in completion date. The change order is forecasted to complete on February 2, 2017.<br/>Event 2: A change order was provided to HiLine to procure new seals and bolts to facilitate establishing a STS Cask with leak tight integrity. New seal system should increase reliability of system and facilitate minimal corrective maintenance during shipping campaign. HiLine provided a cost proposal and CHPRC is conducting a fair cost estimate prior to final approval.</p> | Risk recovery action(s) | Risk Date | FC Date | % | Event 1 - Finalize Field FES activities dates consistent with change orders             | 5/13/16  | 2/28/17 | 70  | Event 2 – Establish Scope of STS Cask Rework and Submit Change Order to HiLine | 12/7/16 | 2/2/17 | 85 | Complete Procurement/Fabrication | 12/7/16 | 2/30/17 | 25 | Deliver equipment to 100K Area | 12/7/16 | 3/30/17 | 0 |
| Risk recovery action(s)                                                                                                                                         | Risk Date                                                                                                                                                                                                                                                                                                                                | FC Date                                            | %     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         |           |         |   |                                                                                         |          |         |     |                                                                                |         |        |    |                                  |         |         |    |                                |         |         |   |
| Event 1 - Finalize Field FES activities dates consistent with change orders                                                                                     | 5/13/16                                                                                                                                                                                                                                                                                                                                  | 2/28/17                                            | 70    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         |           |         |   |                                                                                         |          |         |     |                                                                                |         |        |    |                                  |         |         |    |                                |         |         |   |
| Event 2 – Establish Scope of STS Cask Rework and Submit Change Order to HiLine                                                                                  | 12/7/16                                                                                                                                                                                                                                                                                                                                  | 2/2/17                                             | 85    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         |           |         |   |                                                                                         |          |         |     |                                                                                |         |        |    |                                  |         |         |    |                                |         |         |   |
| Complete Procurement/Fabrication                                                                                                                                | 12/7/16                                                                                                                                                                                                                                                                                                                                  | 2/30/17                                            | 25    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         |           |         |   |                                                                                         |          |         |     |                                                                                |         |        |    |                                  |         |         |    |                                |         |         |   |
| Deliver equipment to 100K Area                                                                                                                                  | 12/7/16                                                                                                                                                                                                                                                                                                                                  | 3/30/17                                            | 0     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         |           |         |   |                                                                                         |          |         |     |                                                                                |         |        |    |                                  |         |         |    |                                |         |         |   |
| STP-125-B:<br>Inclement Weather - ECRTS Annex/In-Basin Equip.                                                                                                   | Inclement weather and site closure days will have a day-for-day impact on construction execution and contractor performance with ECRTS equipment delivery and placement in the Annex or Basin.<br><br><b>Risk Handling Strategy:</b> Accept<br><br><b>Probability:</b> Likely (75% to 90%)<br><b>Worst Case Impacts:</b> \$50K, 12 days  | <span style="color: red; font-size: 2em;">●</span> |       | <p><b>Risk Event:</b><br/>The project has incurred lost time delays in January as a result of inclement weather. The project incurred site closure days on January 9th, 18th, and 19<sup>th</sup>. There were also three hour delays or early release on January 3rd, 10th, 11th, 17th and 23rd.</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>Obtain weather conditions for the area and adjust daily work scope/schedule accordingly</td> <td>12/15/16</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b><br/>Project estimates, per RL, allow only fair weather estimating practices and do not consider the impacts associated with normal local weather conditions. The implication is that planned time in the Annex and Basin will be reduced during both warm and cold weather. Common weather conditions such as high winds, ice storms, snow storms, and lightning will cause work scope delays potentially extending the project schedule duration and increasing costs. Work/Rest regiments can consume 2-4 hours each day and ice, snow, and wind closures have a day-to-day impact on the project schedule. No additional mitigation actions have been identified at this time.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Risk recovery action(s) | Risk Date | FC Date | % | Obtain weather conditions for the area and adjust daily work scope/schedule accordingly | 12/15/16 | Ongoing | N/A |                                                                                |         |        |    |                                  |         |         |    |                                |         |         |   |
| Risk recovery action(s)                                                                                                                                         | Risk Date                                                                                                                                                                                                                                                                                                                                | FC Date                                            | %     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         |           |         |   |                                                                                         |          |         |     |                                                                                |         |        |    |                                  |         |         |    |                                |         |         |   |
| Obtain weather conditions for the area and adjust daily work scope/schedule accordingly                                                                         | 12/15/16                                                                                                                                                                                                                                                                                                                                 | Ongoing                                            | N/A   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         |           |         |   |                                                                                         |          |         |     |                                                                                |         |        |    |                                  |         |         |    |                                |         |         |   |

| 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>January</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:<br>K Basin Pre-Operational Acceptance Testing (KPAT) & ECRS Startup                                                 | The ECRS 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.<br><br><b>Risk Handling Strategy:</b> Control<br><br><b>Probability:</b> Medium (26% to 74%)<br><b>Worst Case Impacts:</b> \$4.5 million, 90 days |            |       | <b>Risk Trigger:</b><br>1) The ECRS equipment does not operate as expected.<br>2) Unexpected attrition of critical testing personnel.<br><br><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>3/15/17</td> <td>25</td> </tr> <tr> <td>Develop streamline strategy (work packages and procedures) to perform in-basin/annex integrated testing and troubleshooting.</td> <td>3/15/17</td> <td>10</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><br><b>Mitigation Assessment:</b><br>No major changes in the month of <b>January</b> .<br>Forecasted mitigation dates are consistent with overall STP critical path schedule. | Mitigation action(s) | FC Date | % | Develop and refine procedures based upon feedback from testing and operations personnel. | 3/15/17 | 25 | Develop streamline strategy (work packages and procedures) to perform in-basin/annex integrated testing and troubleshooting. | 3/15/17 | 10 | 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.                                     | 3/15/17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 25         |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |         |   |                                                                                          |         |    |                                                                                                                              |         |    |                                              |           |     |                                                                                                     |           |     |
| Develop streamline strategy (work packages and procedures) to perform in-basin/annex integrated testing and troubleshooting. | 3/15/17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 10         |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |         |   |                                                                                          |         |    |                                                                                                                              |         |    |                                              |           |     |                                                                                                     |           |     |
| 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>Unassigned Risks</b> (Pending ownership of identified threats/opportunities)                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |         |   |                                                                                          |         |    |                                                                                                                              |         |    |                                              |           |     |                                                                                                     |           |     |
| No unassigned risks identified in the month of <b>January</b> .                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |         |   |                                                                                          |         |    |                                                                                                                              |         |    |                                              |           |     |                                                                                                     |           |     |

### CRITICAL PATH SCHEDULE

The critical path flows through preparation of the Sludge Transportation System Cask & STSC Assembly for installation into the 105K West Annex in support of Construction Acceptance and Preoperational Acceptance Testing. 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 Project is implementing acceleration strategies to complete sludge retrieval by September 30, 2018.

## 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 | 8/12/2018       | 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 2/07/2018. |

\*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 |
|----------------------------------------------------|---------------------|-------------|
| DOE-RL Issue SER for Integrated KW Basin DSA/TSR   | 3/03/17             | 3/17/17     |
| RL Concur on Integrated DSA/TSR Comment Resolution | 1/27/17             | 2/09/17     |
| RL Prepare Integrated DSA/TSR SER                  | 2/10/17             | 2/21/17     |
| RL SRB Review of Integrated DSA/TSR                | 2/24/17             | 3/02/17     |
| RL Review of OTRS                                  | 1/17/17 (A)         | 5/16/17     |

# RL-0012\_C1\_1

## Contract Performance Reports

**Format 1 - Work Breakdown Structure**

**Format 2 - Organizational Categories**

**Format 3 - Baseline**

**Format 4 - Staffing**

**Format 5 - Explanation and Problem Analysis**



January 2017  
CHPRC-2017-01, 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

|                                                       |                               |                                                    |                               |                                                     |                               |                                                                                   |                                          |                                               |                                |                                      |           |                         |               |                     |                |               |  |
|-------------------------------------------------------|-------------------------------|----------------------------------------------------|-------------------------------|-----------------------------------------------------|-------------------------------|-----------------------------------------------------------------------------------|------------------------------------------|-----------------------------------------------|--------------------------------|--------------------------------------|-----------|-------------------------|---------------|---------------------|----------------|---------------|--|
| <b>1. CONTRACTOR</b>                                  |                               | <b>2. CONTRACT</b>                                 |                               | <b>3. PROGRAM</b>                                   |                               | DOLLARS IN                                                                        |                                          | Thousands of \$                               |                                | FORM APPROVED                        |           |                         |               |                     |                |               |  |
| a. NAME<br>CH2M HILL Plateau Remediation Company      |                               | a. NAME<br>Plateau Remediation Contract            |                               | a. NAME<br>15 D 401 KW Basin Sludge Removal Project |                               |                                                                                   |                                          |                                               |                                | OMB No. 0704-0188                    |           |                         |               |                     |                |               |  |
| b. LOCATION (Address and ZIP Code)<br>Richland, WA    |                               | b. NUMBER<br>RL14788                               |                               | b. PHASE                                            |                               |                                                                                   |                                          |                                               |                                | a. FROM (YYYYMMDD)<br>2016 / 12 / 26 |           |                         |               |                     |                |               |  |
|                                                       |                               | c. TYPE<br>CPAF                                    |                               | d. SHARE RATIO                                      |                               | c. EVMS ACCEPTANCE<br>NO <input type="checkbox"/> X YES (YYYYMMDD) 2019 / 09 / 18 |                                          |                                               |                                | b. TO (YYYYMMDD)<br>2017 / 01 / 22   |           |                         |               |                     |                |               |  |
| <b>5. CONTRACT DATA</b>                               |                               |                                                    |                               |                                                     |                               |                                                                                   |                                          |                                               |                                |                                      |           |                         |               |                     |                |               |  |
| a. QUANTITY<br>1                                      | b. NEGOTIATED COST<br>295,873 | c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK<br>0 | d. TARGET PROFIT/FEE<br>7,950 | e. TARGET PRICE<br>303,823                          | f. ESTIMATED PRICE<br>301,706 | g. CONTRACT CEILING<br>303,823                                                    | h. ESTIMATED CONTRACT CEILING<br>301,706 | 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)<br>Dickerson, Kala K                        |                                          | b. TITLE<br>Prime Contract Compliance Manager |                                |                                      |           |                         |               |                     |                |               |  |
| a. BEST CASE                                          |                               | 287,689                                            |                               |                                                     |                               | c. SIGNATURE                                                                      |                                          | d. DATE SIGNED (YYYYMMDD)                     |                                |                                      |           |                         |               |                     |                |               |  |
| b. WORST CASE                                         |                               | 297,350                                            |                               |                                                     |                               |                                                                                   |                                          |                                               |                                |                                      |           |                         |               |                     |                |               |  |
| c. MOST LIKELY                                        |                               | 293,756                                            | 295,873                       | 2,117                                               |                               |                                                                                   |                                          |                                               |                                |                                      |           |                         |               |                     |                |               |  |
| <b>8. PERFORMANCE DATA</b>                            |                               |                                                    |                               |                                                     |                               |                                                                                   |                                          |                                               |                                |                                      |           |                         |               |                     |                |               |  |
| CAPN.PBS<br>Control Account.PARS 2 WBS (2)            |                               | CURRENT PERIOD                                     |                               |                                                     |                               | CUMULATIVE TO DATE                                                                |                                          |                                               |                                | REPROGRAMMING ADJUSTMENTS            |           |                         | AT COMPLETION |                     |                |               |  |
| ITEM (1)                                              |                               | BUDGETED COST                                      |                               | ACTUAL COST WORK PERFORMED                          |                               | VARIANCE                                                                          |                                          | BUDGETED COST                                 |                                | ACTUAL COST WORK PERFORMED           |           | VARIANCE                |               | COST VARIANCE (12a) |                |               |  |
|                                                       |                               | WORK SCHEDULED (2)                                 | WORK PERFORMED (3)            | WORK PERFORMED (4)                                  | SCHEDULE (5)                  | COST (6)                                                                          | WORK SCHEDULED (7)                       | WORK PERFORMED (8)                            | ACTUAL COST WORK PERFORMED (9) | SCHEDULE (10)                        | COST (11) | SCHEDULE VARIANCE (12b) | BUDGET (13)   | BUDGETED (14)       | ESTIMATED (15) | VARIANCE (16) |  |
| RL-0012 SNF Stabilization & Disp                      |                               | 0                                                  | 0                             | 0                                                   | 0                             | 0                                                                                 | 156,861                                  | 156,861                                       | 156,758                        | 0                                    | 103       | 0                       | 0             | 156,861             | 156,758        | 103           |  |
| RL_0012_C1_1.16 Sludge Treatment Project              |                               | 0                                                  | 0                             | 0                                                   | 0                             | 0                                                                                 | 156,861                                  | 156,861                                       | 156,758                        | 0                                    | 103       | 0                       | 0             | 156,861             | 156,758        | 103           |  |
| RL_0012_C1_1.17 D-401 KW Basin Sludge Removal Project |                               | 3,070                                              | 4,665                         | 2,684                                               | 1,595                         | 1,981                                                                             | 96,336                                   | 99,684                                        | 90,209                         | 3,347                                | 9,475     | 0                       | 0             | 132,775             | 130,931        | 1,844         |  |
| b. COST OF MONEY                                      |                               | 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             |  |
| d. UNDISTRIBUTED BUDGET                               |                               |                                                    |                               |                                                     |                               |                                                                                   |                                          |                                               |                                |                                      |           |                         |               |                     |                |               |  |
| e. SUBTOTAL                                           |                               | 3,070                                              | 4,665                         | 2,684                                               | 1,595                         | 1,981                                                                             | 253,197                                  | 256,545                                       | 246,968                        | 3,347                                | 9,577     | 0                       | 0             | 289,636             | 287,689        | 1,947         |  |
| f. MANAGEMENT RESERVE                                 |                               |                                                    |                               |                                                     |                               |                                                                                   |                                          |                                               |                                |                                      |           |                         |               | 6,067               |                |               |  |
| g. TOTAL                                              |                               | 3,070                                              | 4,665                         | 2,684                                               | 1,595                         | 1,981                                                                             | 253,197                                  | 256,545                                       | 246,968                        | 3,347                                | 9,577     | 0                       | 0             | 295,703             |                |               |  |
| <b>9. RECONCILIATION TO CONTRACT BUDGET BASELINE</b>  |                               |                                                    |                               |                                                     |                               |                                                                                   |                                          |                                               |                                |                                      |           |                         |               |                     |                |               |  |
| a. VARIANCE ADJUSTMENT                                |                               |                                                    |                               |                                                     |                               |                                                                                   |                                          |                                               |                                |                                      |           |                         |               |                     |                |               |  |
| b. TOTAL CONTRACT VARIANCE                            |                               |                                                    |                               |                                                     |                               |                                                                                   |                                          |                                               |                                |                                      |           | 3,347                   | 9,577         | 295,703             | 287,689        | 8,014         |  |

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<br>CH2M HILL Plateau Remediation Company   |  | a. NAME<br>Plateau Remediation Contract |  | a. NAME<br>15_D_401 KW Basin Sludge Removal Project                                                                   |  | a. FROM (YYYYMMDD)                 |  |
| b. LOCATION (Address and ZIP Code)<br>Richland, WA |  | b. NUMBER<br>RL14788                    |  | b. PHASE                                                                                                              |  | 2016 / 12 / 26                     |  |
|                                                    |  | c. TYPE<br>CPAF                         |  | d. SHARE RATIO                                                                                                        |  | b. TO (YYYYMMDD)<br>2017 / 01 / 22 |  |
|                                                    |  |                                         |  | c. EVMS ACCEPTANCE<br>NO <input type="checkbox"/> X YES <input checked="" type="checkbox"/> (YYYYMMDD) 2019 / 09 / 18 |  |                                    |  |

| WB5.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 (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       | 3,070              | 4,665              | 2,684                          | 1,595        | 1,981    | 253,197            | 256,545            | 246,968                        | 3,347         | 9,577     | 0                   | 0                       | 0                         | 289,636       | 287,689        | 1,947         |  |  |
| <b>b. COST OF MONEY</b>                               | 0                  | 0                  | 0                              | 0            | 0        | 0                  | 0                  | 0                              | 0             | 0         | 0                   | 0                       | 0                         | 0             | 0              | 0             |  |  |
| <b>c. GENERAL AND ADMINISTRATIVE</b>                  | 0                  | 0                  | 0                              | 0            | 0        | 0                  | 0                  | 0                              | 0             | 0         | 0                   | 0                       | 0                         | 0             | 0              | 0             |  |  |
| <b>d. UNDISTRIBUTED BUDGET</b>                        |                    |                    |                                |              |          |                    |                    |                                |               |           |                     |                         |                           |               |                |               |  |  |
| <b>e. SUBTOTAL (Performance Measurement Baseline)</b> | 3,070              | 4,665              | 2,684                          | 1,595        | 1,981    | 253,197            | 256,545            | 246,968                        | 3,347         | 9,577     | 0                   | 0                       | 0                         | 289,636       | 287,689        | 1,947         |  |  |
| <b>f. MANAGEMENT RESERVE</b>                          |                    |                    |                                |              |          |                    |                    |                                |               |           |                     |                         |                           | 6,067         |                |               |  |  |
| <b>g. TOTAL</b>                                       | 3,070              | 4,665              | 2,684                          | 1,595        | 1,981    | 253,197            | 256,545            | 246,968                        | 3,347         | 9,577     | 0                   | 0                       | 0                         | 295,703       |                |               |  |  |

CLASSIFICATION (When Filled In)



CLASSIFICATION (When Filled In)

| CONTRACT PERFORMANCE REPORT<br>FORMAT 4 - STAFFING          |                                    |                                                           |                                                     |                       |                       |                       |                                                                                                                     |                        |                         |              |                                      | FORM APPROVED<br>OMB No. 0704-0188 |                          |
|-------------------------------------------------------------|------------------------------------|-----------------------------------------------------------|-----------------------------------------------------|-----------------------|-----------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------|------------------------|-------------------------|--------------|--------------------------------------|------------------------------------|--------------------------|
|                                                             |                                    |                                                           |                                                     |                       |                       |                       |                                                                                                                     |                        |                         |              | Dollars in: FTE                      |                                    |                          |
| <b>1. CONTRACTOR</b>                                        |                                    |                                                           | <b>2. CONTRACT</b>                                  |                       |                       |                       | <b>3. PROGRAM</b>                                                                                                   |                        |                         |              | <b>4. REPORT PERIOD</b>              |                                    |                          |
| a. NAME<br>CH2M HILL Plateau Remediation Company            |                                    |                                                           | a. NAME<br>Plateau Remediation Contract             |                       |                       |                       | a. NAME<br>15_D_401 KW Basin Sludge Removal Project                                                                 |                        |                         |              | a. FROM (YYYYMMDD)<br>2016 / 12 / 26 |                                    |                          |
| b. LOCATION (Address and ZIP Code)<br>Richland, WA          |                                    |                                                           | b. NUMBER<br>RL14788                                |                       | b. PHASE              |                       | c. EVMS ACCEPTANCE<br><input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (YYYYMMDD) 2019 / 09 / 18 |                        |                         |              |                                      | b. TO (YYYYMMDD)<br>2017 / 01 / 22 |                          |
| c. TYPE<br>CPAF                                             |                                    |                                                           | d. SHARE RATIO                                      |                       |                       |                       |                                                                                                                     |                        |                         |              |                                      |                                    |                          |
| <b>5. PERFORMANCE DATA</b>                                  |                                    |                                                           |                                                     |                       |                       |                       |                                                                                                                     |                        |                         |              |                                      |                                    |                          |
| WBS.Resp Org Group<br><br>ORGANIZATIONAL<br>CATEGORY<br>(1) | ACTUAL<br>CURRENT<br>PERIOD<br>(2) | ACTUAL<br>END OF<br>CURRENT PERIOD<br>(Cumulative)<br>(3) | FORECAST (Non-Cumulative)                           |                       |                       |                       |                                                                                                                     |                        |                         |              |                                      |                                    | AT<br>COMPLETION<br>(15) |
|                                                             |                                    |                                                           | SIX MONTH FORECAST BY MONTH (Enter names of months) |                       |                       |                       |                                                                                                                     |                        | ENTER SPECIFIED PERIODS |              |                                      |                                    |                          |
|                                                             |                                    |                                                           | +1<br>FEB 2017<br>(4)                               | +2<br>MAR 2017<br>(5) | +3<br>APR 2017<br>(6) | +4<br>MAY 2017<br>(7) | +5<br>JUN 2017<br>(8)                                                                                               | +6<br>JULY 2017<br>(9) | REMAIN FY17<br>(10)     | FY18<br>(11) | FY19-LC<br>(12)                      | ATCOMPLETE<br>(13)                 |                          |
| 3G - K Basin Oper & Plateau Remediation Pro                 | 48                                 | 6542                                                      | 74                                                  | 72                    | 83                    | 76                    | 94                                                                                                                  | 94                     | 205                     | 335          | 0                                    | 0                                  | 7574                     |
| <b>g. TOTAL DIRECT</b>                                      | <b>48</b>                          | <b>6542</b>                                               | <b>74</b>                                           | <b>72</b>             | <b>83</b>             | <b>76</b>             | <b>94</b>                                                                                                           | <b>94</b>              | <b>205</b>              | <b>335</b>   | <b>0</b>                             | <b>0</b>                           | <b>7574</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<br>CH2M HILL Plateau Remediation Company   | a. NAME<br>Plateau Remediation Contract | a. NAME<br>012- RL-12 SNF Stabilization and Disposition |                                           | a. FROM (YYYYMMDD)<br><br>2016/12/26 |
| b. LOCATION (Address and ZIP Code)<br>Richland, WA | b. NUMBER<br>RL14788                    | b. PHASE                                                |                                           | b. TO (YYYYMMDD)<br><br>2017/01/22   |
|                                                    | c. TYPE<br>CPAF                         | d. SHARE RATIO                                          | c. EVMS ACCEPTANCE<br>No X Yes (YYYYMMDD) | 2009 / 09 / 18                       |

**5. Evaluation**

**Direct Projects**

|              | Budget    | Earned    | Actuals   | SV in \$ | SV in %     | CV in \$    | CV in % | SPI  | CPI  |
|--------------|-----------|-----------|-----------|----------|-------------|-------------|---------|------|------|
| Current:     | 3,070.4   | 4,665.2   | 2,683.9   | 1,594.8  | 51.9%       | 1,981.3     | 42.5%   | 1.52 | 1.74 |
| Cumulative:  | 253,197.2 | 256,544.6 | 246,967.5 | 3,347.4  | 1.3%        | 9,577.1     | 3.7%    | 1.01 | 1.04 |
|              | BAC       | EAC       | VAC in \$ | VAC in % | TCPI to BAC | TCPI to EAC |         |      |      |
| At Complete: | 289,636.1 | 287,689.3 | 1,946.8   | 0.7%     | 0.78        | 0.81        |         |      |      |

**Explanation of Variance/Description of Problem:**  
 Current Period:  
 Schedule Variance: The project is showing a significant positive schedule variance due to utilization of overtime to accelerate installation of field equipment in the Annex and In-Basin areas, and construction acceptance testing to achieve sludge retrievals by 2018. Also contributing to the positive variance is work starting earlier than planned on Procurement Set 9 – fabrication of the fill tube and float assemblies for STSCs 14 through 24 as this work was initiated in conjunction with STSCs 2 through 13.

Cost Variance: The current month positive cost variance has several contributors. The initial award for fabrication of STSC vessels 14-24 was lower than planned to date, however fabrication is still in process and the possibility of future contract changes still exist. Equipment installation is being performed at a lower cost than planned as FFP contracts were awarded at a price less than planned with minimal design changes to date. Efficiencies have been achieved by centralizing program management responsibilities to reduce overall resource requirements to the PBS. All required work scope is being accomplished with the reduced staff. Labor continues to underrun in the ECRS Testing account, as technicians and engineers are supporting other projects. Long-term, the ECRS testing scope is expected to complete under budget, and the EAC reflects this current and projected underrun.

Cumulative To Date:  
 Schedule Variance: Within Threshold.  
 Cost Variance: Within Threshold.

**Impact:**  
 Schedule Impact: None identified at this time – project is within threshold.

The project continues to pursue acceleration of the first sludge container from the current plan of April 11, 2018 (non-risk adjusted date). The project is on schedule to meet TPA milestones M-016-177 "Complete 105-KW Sludge Transfer Equipment Installation" by 9/30/2017 and M-016-175 "Begin Sludge Removal from 105-KW Fuel Storage Basin" by 9/30/2018.

Cost Impact: Within Threshold

The current ETC reflects the expected overall costs and further ETC adjustments will be considered as preparations are made to start KPAT testing (April 2017). Work was initiated on the truck scale calibration and the team completed the nitrogen system high pressure leak test. The MASF test team continues their efforts to make installed equipment operational. Currently, the EAC is projecting \$287.7M overall for the project, against a life-cycle budget of \$289.6M.

**Corrective Action:**  
 Schedule: No corrective actions identified in the month of January.

Cost: The project is in the process of verifying all CACNs for 12.16 are closed. An evaluation will be performed to assure all final contract costs and adjustments are reflected in the accounts, prior to closing. Approximately 75% of the CACNs have been closed. The remaining CACNs should be closed by March 31, 2017. Delay in completing this action is primarily attributed to experiencing a significant number of work delays, early releases, and cancellations due to adverse weather conditions on the Hanford Site and surrounding communities, where non-essential personnel were advised not to report to work. Also, there have been higher priority work demands.

(Action CAMS. March 31, 2017)

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

- Schedule Margin Analysis: Project schedule margin is 123 days. There were no baseline changes in January which affected the schedule margin. Project continues to evaluate schedule for efficiencies.
- IMS Data dictionary Changes: None in the month of January.
- Forecast Schedule with No Baseline: None in the month of January.
- UB Balance: N/A
- Negative ACWP: None in the month of January.
- EAC Analysis: Best Case = \$287,689; Most likely = \$293,756; Worst Case = \$297,350.
- Negative CV > VAC: N/A
- MR Transactions: None in the month of January.
- Retroactive Changes: None in the month of January.
- EVT Changes: None in the month of January.

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Date: 01/22/17

Approved by:

Date: