

# Monthly Performance Report

May 2016

Prepared for the U.S. Department of Energy  
Assistant Secretary for Environmental Management

Contractor for the U.S. Department of Energy  
under Contract DE-AC06-08RL14788



P.O. Box 1600  
Richland, Washington 99352

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**APPROVED**

*By Janis Aardal at 1:21 pm, Jun 29, 2016*

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Release Approval

Date

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J. A. Ciucci  
President and Chief  
Executive Officer

# Monthly Performance Report

U.S. Department of Energy Contract,  
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May 2016  
CHPRC-2016-05, Revision 1

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### PROJECT BASELINE SUMMARY SECTIONS

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## EXECUTIVE SUMMARY

CH2M HILL Plateau Remediation Company advanced cleanup throughout the Hanford Site during the month of May. Major accomplishments included:

- The Plutonium Finishing Plant (PFP) Closure Project removed glove boxes HC-4 and HC-6 from the building, as well as repaired the canyon crane at the Plutonium Reclamation Facility (PRF) to allow canyon decontamination efforts to continue.
- The Waste and Fuels Management Project (W&FMP) completed the construction of the Environmental Restoration Disposal Facility (ERDF) transfer pipeline that will transfer leachate from ERDF to the 200 West Pump and Treat (P&T) facility.
- The Soil and Groundwater Remediation Project (S&GRP) completed drilling seven of the eight planned remedy monitoring wells in the 100-FR-3 Operable Unit and completed installation of membrane bioreactor (MBR) cassettes at the 200 West P&T facility.
- The K Basin Operations and Plateau Remediation (KBO&PR) Project completed the delivery of Cell Storage equipment that will be installed in the T Plant canyon to allow receipt and storage of the sludge transport and storage containers.



**Workers at PFP removed glove box HC-4 from the facility.**



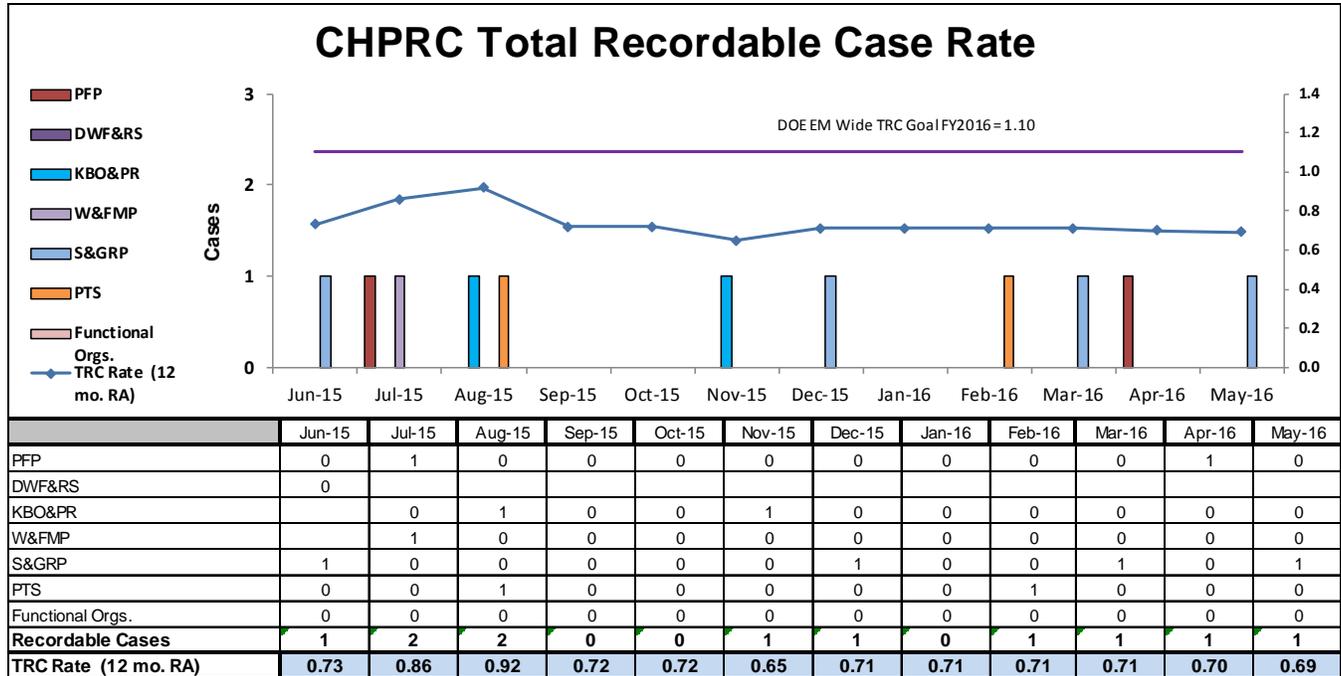
**Workers at the 200 West Pump and Treat facility completed the installation of MBR cassettes.**

- The May 2016 President’s Zero Accident Council (PZAC) meeting was not held in lieu of employees attending the Health and Safety Expo 2016 held on May 10 and 11 of 2016. CH2M HILL Plateau Remediation Company (CHPRC) booth was comprised of displays from each project. The theme of the booth was “Safety By Choice Not By Chance.” In addition to the booth, one of the emergency response trailers, the “Super Bee,” and the TALON, a remote-operated vehicle capable of chemical and radiological monitoring for Emergency Response events, were displayed. This also allowed attendees to “dress” for an emergency assist. CHPRC sponsored the Hanford historical booth as one of the top requested displays from retired Hanford workers! The CHPRC team was awarded the BEST SAFETY MESSAGE Award for the “Safety By Choice, Not By Chance” message.
- The Voluntary Protection Program Participants Association (VPPPA) Region X 22nd Annual Northwest Safety & Health Summit themed “Saddle Up for Safety” was held in Boise, Idaho in May 2016. CHPRC sent nine employees to the conference with three of the employees presenting at workshops. The VPPPA Safety and Health Outreach Award was presented to CHPRC Sludge Treatment Project for the development of the test mockup at the Maintenance and Storage Facility (MASF). This mockup allowed employees to gain valuable working knowledge on the safe operations of the sludge retrieval system.
  - o Five “*Thinking Target Zero*” (TTZ) bulletins were published in May to convey important occupational, safety, health, and environmental messages:
    - Importance of Hydration.
    - Being a DOE-VPP Star Site is Cool!
    - Travel Safety and Security.
    - UV Protection.
  - o EMS – Cultural Sensitivity. May *Weekly Safety Tailgate* briefing packages communicated relevant topics and safety information to the workforce:
    - Five Lessons Learned: 1) CH2M Driving while fatigued, obtaining medical information, and incident notification; 2) Lawrence Livermore National Laboratory incident regarding cutting with saw; 3) Idaho National Laboratory pinched power cord; 4) CHPRC unanticipated chemical reaction during waste load-out; and 5) CH2M heel of shoe gets caught in carpet.
    - Weekly Ethics Moments.
    - Reporting Injuries.
    - Return to work process for work related illness/injury.
    - Dosimetry reminders.
    - Handling of respiratory equipment.
    - Electrical Safety Month.
    - Motorcycle Safety.
    - Migratory Bird Protection.
    - Herbicide/Pesticide Spray Schedule.
    - Badge Replacement.
    - Vehicle Use and Control.

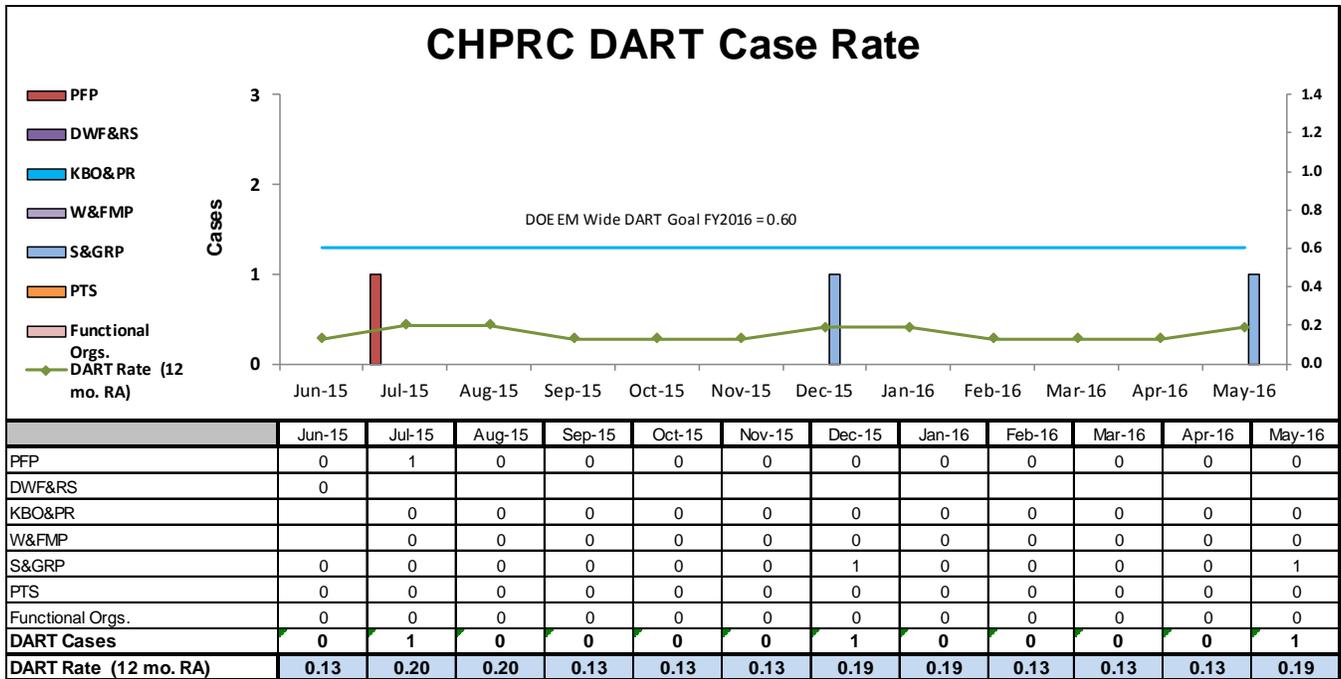
- o The May Kudos Corner recognized individuals and teams who made a significant contribution to safety at work, home or play:
  - Kudos to a 100K Nuclear Chemical Operator for questioning the placement of waste in a 55 gallon drum. As a result of the questioning attitude, procedure changes will provide a better way of storing and dispositioning waste oil at 100K.
  - Kudos to two workers who came up with an efficiency during a high hazard maintenance job at 200 West P&T. With the proper approvals, the team was able to perform work in a way that greatly reduced potential acid exposure to the crafts performing maintenance activities.
  - Kudos to three S&GRP workers, who encountered a vehicle accident and helped until the first responders arrived.
  - Kudos to the KBO&PR/ Sludge Treatment Project (STP) for winning the 2016 VPPPA Region X Safety and Health Outreach Award at the 22nd Annual Northwest Safety & Health Summit held in Boise, Idaho.
- o The Weekly Update presented a Safety Topic by Terry Vaughn, Safety, Health, Security, & Quality (SHS&Q) Vice President to remind all employees to refocus after the holiday and to look for what has changed, follow procedures and work control documents, and stop when unsure.

### TARGET ZERO PERFORMANCE

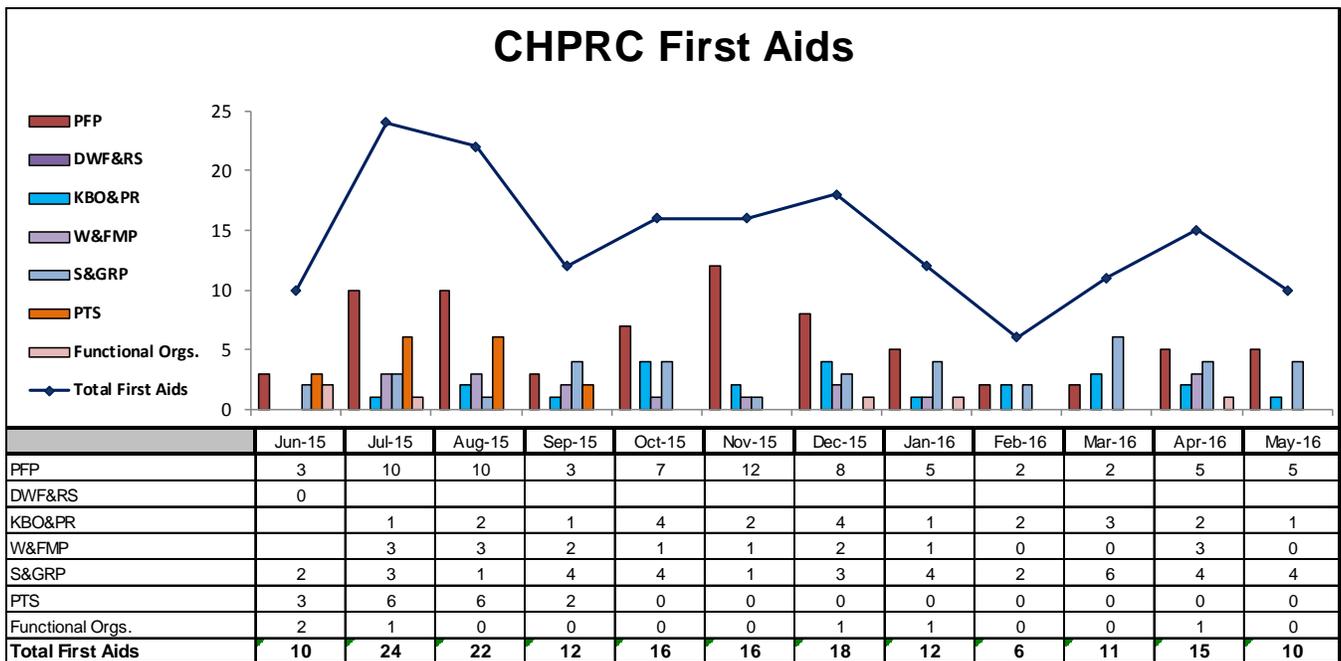
CHPRC continued focusing on integrating and implementing safety programs in all program and project areas.



Total Recordable Injury Case (TRC) Rate: The 12-month rolling average TRC rate of 0.69 is based on a total of eleven Recordable injuries. There was one Recordable case for May.



Days Away, Restricted or Transferred (DART) Workdays Case Rate: The 12-month rolling average DART rate of 0.19 is based upon a total of three Days Away cases. There was one DART case in May.



First Aid Case Summary: CHPRC reported 10 first aid cases in May; of these, four cases required no treatment. There was one self-treat injury. The contributors were four abrasions/bruises/contusions, three miscellaneous (burns, rashes, repetitive motion, etc.), two insect bites and one sprains/strains/pains injury.

## KEY ACCOMPLISHMENTS

### Projects

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

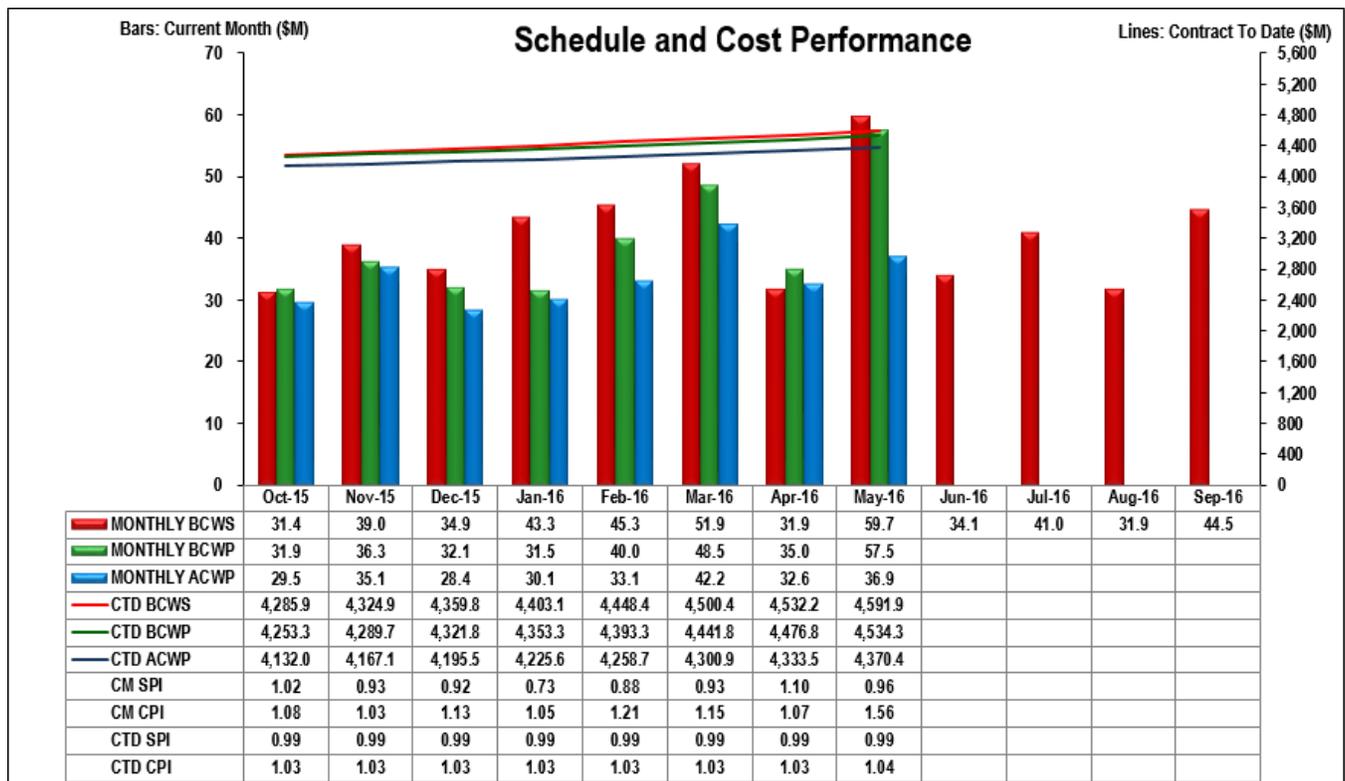
### Project Services and Support

- Refer to the Appendix B section of this report for specific Project Services & Support accomplishments.

## MAJOR ISSUES

Refer to Sections A through G as well as Appendix C of this report for the project specific Major Issues.

## EARNED VALUE MANAGEMENT



|   | \$M            |      |             |          |       | \$M              |         |             |          |        | \$M             |         |          |       |
|---|----------------|------|-------------|----------|-------|------------------|---------|-------------|----------|--------|-----------------|---------|----------|-------|
|   | Current Period |      |             |          |       | Contract to Date |         |             |          |        | Contract Period |         |          |       |
|   | Budgeted Cost  |      | Actual Cost | Variance |       | Budgeted Cost    |         | Actual Cost | Variance |        | BAC             | EAC     | Variance |       |
|   | BCWS           | BCWP | ACWP        | Schedule | Cost  | BCWS             | BCWP    | ACWP        | Schedule | Cost   |                 |         |          |       |
| RL-0011 - Nuclear Materials Stab & Disp PFP | 9.4            | 5.7  | 8.0         | (3.8)    | (2.3) | 938.1            | 890.6   | 905.2       | (47.4)   | (14.5) | 978.9           | 1,030.3 | (51.4)   |       |
| RL-0012 - SNF Stabilization & Disposition   | 24.8           | 26.2 | 5.6         | 1.4      | 20.7  | 591.9            | 595.0   | 573.6       | 3.0      | 21.4   | 741.6           | 717.5   | 24.1     |       |
| RL-0013 - Solid Waste Stab & Disposition    | 7.7            | 7.3  | 7.8         | (0.4)    | (0.6) | 1053.4           | 1052.2  | 987.2       | (1.1)    | 65.0   | 1,333.1         | 1,249.3 | 83.8     |       |
| RL-0030 - Soil & Water Rem-Grndwtr/Vadose   | 12.4           | 11.0 | 9.7         | (1.4)    | 1.3   | 1240.3           | 1225.4  | 1199.7      | (14.8)   | 25.7   | 1,564.8         | 1,525.9 | 38.9     |       |
| RL-0040 - Nuc Fac D&D - Remainder           | 1.8            | 2.0  | 2.3         | 0.2      | (0.3) | 416.5            | 413.3   | 381.9       | (3.2)    | 31.4   | 469.1           | 435.3   | 33.8     |       |
| RL-0041 - Nuc Fac D&D - RC Closure Project  | 3.3            | 5.2  | 3.5         | 1.9      | 1.8   | 330.3            | 336.4   | 305.4       | 6.0      | 31.0   | 408.2           | 376.0   | 32.2     |       |
| RL-0042 - Nuc Fac D&D - FFTF Project        | 0.2            | 0.2  | 0.1         | (0.0)    | 0.0   | 21.4             | 21.4    | 17.5        | 0.0      | 4.0    | 26.5            | 22.9    | 3.5      |       |
| (Values are rounded to the nearest \$0.1M)  | Total          | 59.7 | 57.5        | 36.9     | (2.1) | 20.6             | 4,591.9 | 4,534.3     | 4,370.4  | (57.5) | 163.9           | 5,522.3 | 5,357.3  | 165.0 |
| (Values do not have UB breakout)            |                |      |             |          |       |                  |         |             |          |        |                 |         |          |       |

### Performance Summary

CHPRC continues to track completion of contract scope within budget and is currently projecting a Variance at Completion of \$165.0 million with \$63.6 million of Management Reserve (MR) for a total positive variance of \$228.6 million. For May, the project was 3.5 percent behind schedule and 35.9 percent under planned cost. CTD, the project was 1.3 percent behind schedule and 3.6 percent under planned cost.

The current month favorable cost variance is due to RL-0012 transitioning the Sludge Retrieval Project (STP) to a DOE 413.3 Line Item Capital Asset project. BCR-012C-018R0 Establish SRP Project Baseline for Project Reporting was processed in May to re-align scope prior to implementation of the Capital Asset project. Also contributing to the favorable cost variance is RL-0041 implementation of BCR-041C-16-15R0 #304 *Support Initiation of Transition of River Corridor Contract Scope Activities to PRC* and BCR-041C-16-17R0 CO #304, *Support Initiation of Transition of River Corridor Contract Scope Activities to PRC-300-296 Waste Site* that added BCWS to the PMB for River Corridor Closure Contract (RCCC) scope. The favorable variances for RL-0012 and RL-0041 are partially offset by RL-0011 due to a point adjustment as a result of implementation of BCR-011C-16-006R0 *PFP CAP 2 Project EVM Type Change from LOE to Apportioned*.

## FUNDING ANALYSIS

### FY2016 Funds vs. Fiscal Year Spend Forecast (\$M)

| PBS  | Project  | FY2016            |                   | Variance      |
|--|--|-------------------|-------------------|---------------|
|  |  | Projected Funding | Spending Forecast |               |
| <b>Spending Forecast</b>                           |  |                   |                   |               |
| RL-0011  | Nuclear Materials Stabilization and Disposition  | 110.7             | 108.3             | 2.4           |
| RL-0012  | Spent Nuclear Fuel Stabilization and Disposition | 53.0              | 45.8              | 7.2           |
| RL-0012  | 15-D-401 Sludge Retrieval Project                | 68.1              | 34.5              | 33.6          |
| RL-0013  | Waste and Fuels Management Project               | 106.7             | 92.7              | 14.0          |
| RL-0030  | Soil, Groundwater and Vadose Zone Remediation    | 127.5             | 120.5             | 7.0           |
| RL-0040  | Nuclear Facility D&D, Remainder of Hanford       | 26.5              | 21.9              | 4.6           |
| RL-0041  | Nuclear Facility D&D, River Corridor             | 28.7              | 28.8              | (0.1)         |
| RL-0042  | Fast Flux Test Facility Closure                  | 3.2               | 1.9               | 1.3           |
| <b>Total Spending Forecast</b>                     |  | <b>524.3</b>      | <b>454.3</b>      | <b>70.1</b>   |
| <b>Incremental Scope Pending Change Management</b> |  |                   |                   |               |
| RL-0012  | Spent Nuclear Fuel Stabilization and Disposition |                   | 0.2               | (0.2)         |
| RL-0012  | Spent Nuclear Fuel Stabilization and Disposition |                   | 0.2               | (0.2)         |
| RL-0013  | Waste and Fuels Management Project               |                   | 13.4              | (13.4)        |
| RL-0030  | Soil, Groundwater and Vadose Zone Remediation    |                   | 1.1               | (1.1)         |
| RL-0040  | Nuclear Facility D&D, Remainder of Hanford       |                   | 3.0               | (3.0)         |
| RL-0041  | Nuclear Facility D&D, River Corridor             |                   | 10.1              | (10.1)        |
| <b>Total Non-Contract Work Scope</b>               |  | <b>0.0</b>        | <b>28.0</b>       | <b>(28.0)</b> |
| <b>Total Base:</b>                                 |  |                   |                   |               |
| RL-0011  | Nuclear Materials Stabilization and Disposition  | 110.7             | 108.3             | 2.4           |
| RL-0012  | Spent Nuclear Fuel Stabilization and Disposition | 53.0              | 46.0              | 7.0           |
| RL-0012  | 15-D-401 Sludge Retrieval Project                | 68.1              | 34.7              | 33.4          |
| RL-0013  | Waste and Fuels Management Project               | 106.7             | 106.1             | 0.6           |
| RL-0030  | Soil, Groundwater and Vadose Zone Remediation    | 127.5             | 121.6             | 5.9           |
| RL-0040  | Nuclear Facility D&D, Remainder of Hanford       | 26.5              | 24.8              | 1.6           |
| RL-0041  | Nuclear Facility D&D, River Corridor             | 28.7              | 38.8              | (10.2)        |
| RL-0042  | Fast Flux Test Facility Closure                  | 3.2               | 1.9               | 1.3           |
| <b>Total Base:</b>                                 |  | <b>524.3</b>      | <b>482.2</b>      | <b>42.1</b>   |

#### Funds/Variance Analysis

FY2016 expected funding was increased by \$10.6 million in May for buy-back work scope approved by the RL Hanford Contractor Advisory Board (HCAB) on April 13, 2016. FY2016 expected funding is now \$524.3 million. In May, the Spending Forecast was adjusted for the buy-back scope not previously included and incorporates a decrease in RL-0041 for anticipated year-end passback from WCH for Environmental Restoration Disposal Facility (ERDF) costs.

## BASELINE CHANGE REQUESTS

In May 2016, CHPRC approved and implemented fifteen (15) BCRs into the Performance Measurement Baseline (PMB). Each change request is identified in the table below:

| Change Request #  | Title  | Summary of Change   |
|-------------------|--|---|
| BCR-011C-16-006R0 | <i>PFP CAP 2 EVM Type Change from LOE to Apportioned</i>   | This BCR changed EVM type from Level of Effort (LOE) to Apportioned to allow for performance to more accurately be reported. This BCR does not change the PMB value.  |
| BCR-011-16-007R0  | <i>MR Draw to Align Hotel Load with Ready for Demo Activities</i>                                  | This BCR incorporated a Management Reserve (MR) draw to align the non-Capital Asset Project (CAP) Operational Activities “hotel load” with the RL approved PFP CAP 2 Project CD-2/3 baseline. This BCR increased the PMB by \$7,108K.   |
| BCR-012C-16-018R0 | <i>Establish SRP Project Baseline for Project Reporting</i>  | This BCR incorporated RL direction to establish a formal baseline for SRP based on approval of CD 1/2/3. The BCR draws MR to adjust the PMB to set BCWS & BCWP equal to ACWP. This BCR increased the PMB by \$17,988K.  |
| BCR-012C-16-019R0 | <i>SRP CAP Management Reserve Draw for NE Corner Construction and Annex Facility Maintenance</i>   | This BCR draws MR for unexpected future growth within the currently authorized work scope associated with two Firm Fixed Price (FFP) Contracts associated with KW Basin NE Corner Construction and Annex Facility Maintenance until turnover to operations whose values are greater than planned in the baseline and for added CHPRC oversight of the contractor maintenance activities due to this effort being more complex than assumed in the baseline. This BCR increased the PMB by \$3,374K. |
| BCR-013-16-022R0  | <i>CSB Stack Flow Testing &amp; 90 Mil Venting Deferral</i>  | This BCR added CSB stack flow testing scope to the PMB with an equal offset from work that will not be performed during the contract period (WBS 013.06.01.09.02 –T-Plant 90 Mil Rigid Liner Venting). This BCR does not change the PMB value.  |
| BCR-013-16-023R0  | <i>Realignment of Select M-091 Waste Management Milestones</i>                                     | This BCR incorporated into the PMB schedule the TPA milestone changes documented in CHPRC-1600751, Final Approval Package from Tentative Agreement on Negotiations for the Realignment of Select M-091 Waste Management Milestones. This BCR does not change the PMB value.   |
| BCR-030-16-030R0  | <i>Cultural Resource Review Realized Risk – 100-NR-2 P&amp;T D&amp;D</i>                           | This BCR draws down MR to incorporate in-scope unplanned work for D&D of the 100-NR-2 Pump & Treat (P&T) to mitigate realized risk SGW-NR2-03, Cultural Resource Reviews. This BCR increased the PMB by \$427K.   |
| BCR-030-16-035R0  | <i>Revise Method of Performance for Composite Analysis Workshop Activities</i>                     | This BCR modified the currently planned LOE Earned Value Technique (EVT) FY2017 Composite Analysis activity, which is currently planned within WBS 030.01.02.01.01, Technical Integration, into WBS 030.01.02.01.05, Composite Analysis, with a percent-complete EVT to enable accurate performance measurement, and to allow a portion of the FY2017 Composite Analysis work scope to be performed in FY2016. This BCR decreased the PMB by \$3,104K.  |
| BCR-041C-16-015R0 | <i>CO #304 Support Initiation of Transition of River Corridor Contract Scope Activities to PRC</i> | This BCR incorporated the Contract Modification (CM) 483, Change Order (CO) #304 scope to initiate the transition of RCC scope to PRC into the PMB within the limits of the CO Not To Exceed (NTE) value. This BCR increased the PMB by \$1,671K.   |

| Change Request #   | Title   | Summary of Change  |
|--------------------|---|--|
| BCR-041-16-016R0   | <i>CO #304 - 324 Min Safe Scope, Schedule and Budget Additions</i>  | This BCR incorporated the scope associated with CO #304, 324 Building Minimum Safe Operations, 324 Program Conversions, 324 Building Additional Compliance Scope, and 324 Building Usage Based Services. This BCR increased the PMB by \$4,036K. |
| BCR-041C-16-017R0  | <i>CO #304 Support Initiation of Transition of River Corridor Contract Scope Activities to PRC – 300-296 Waste Site</i> | This BCR incorporated CM 483, CO #304, 300-296 Scope, NTE into baseline to initiate the transition of RCC scope to PRC. This BCR increased the PMB by \$1,399K.  |
| BCR-030-16-036R0   | <i>PBS RL-0030 WBS Dictionary Updates</i>   | This BCR made changes to WBS dictionaries to fix errors and inconsistencies with other WBS dictionaries due to a work site assessment (S&GRP-2015-WSA-15585). This BCR does not change the PMB value.  |
| BCRA-PRC-16-042R0  | <i>HPIC Updates May 2016</i>  | This BCR documents HPIC changes made in May 2016. This BCR does not change the PMB value.  |
| BCRA-012C-16-022R0 | <i>Correct D-401 SRP Baseline BCR Implementation Error</i>  | This CAP BCR corrects CAPN coding errors made during the implementation of BCR-012C-16-010R0. This BCR does not change the PMB value.  |

The Allocated (Distributed) Budget increased by \$36,000K.

#### Undistributed Budget Activity

| BCR Number       | Title  | Fiscal Year | UB         |
|------------------|--|-------------|------------|
| BCR-041-16-012R0 | <i>PBS RL-0041 Undistributed Budget May 2016</i> | 2015 - 2018 | \$ -3,104K |

The Undistributed Budget decreased by \$3,104K for an overall increase to the PMB of \$32,896K during May.

#### Management Reserve Activity

| BCR Number        | Title  | Fiscal Year | MR          |
|-------------------|--|-------------|-------------|
| BCR-011-16-007R0  | <i>MR Draw to Align Hotel Load with Ready for Demo Activities</i>                                | 2015 - 2018 | \$ -7,108K  |
| BCR-012C-16-018R0 | <i>Establish SRP Project Baseline for Project Reporting</i>                                      | 2015 - 2018 | \$ -17,988K |
| BCR-012C-16-019R0 | <i>SRP CAP Management Reserve Draw for NE Corner Construction and Annex Facility Maintenance</i> | 2015 - 2018 | \$ -3,374K  |
| BCR-030-16-030R0  | <i>Cultural Resource Review Realized Risk - 100-NR-2 P&amp;T D&amp;D</i>                         | 2015 - 2018 | \$-427K     |

Overall, there was a decrease of \$28,896K to Management Reserve (MR) during May.

### Fee Activity

| BCR Number | Title | Fiscal Year | Fee |
|------------|-------|-------------|-----|
| N/A        | N/A   | 2015 - 2018 | N/A |

Overall, there was no change to Fee during May.

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):

#### May 2016 Summary of Changes

|                            | FY 2009-2013     | FY2014         | FY2015         | FY2016         | FY2017         | FY2018         | FYs 2014-2018    | Contract Period Total | Total PMB        |
|----------------------------|------------------|----------------|----------------|----------------|----------------|----------------|------------------|-----------------------|------------------|
| <i>April 2016 Estimate</i> |                  |                |                |                |                |                |                  |                       |                  |
| PMB                        | 3,391,477        | 391,653        | 471,323        | 455,991        | 421,774        | 357,209        | 2,097,950        | 5,489,426             | 5,489,426        |
| MR                         | 0                | 0              | 0              | 32,825         | 35,614         | 24,029         | 92,468           | 92,468                | 92,467           |
| Fee                        | 155,504          | 14,325         | 14,501         | 27,303         | 9,696          | 18,011         | 83,835           | 239,339               | 239,339          |
| <b>Total</b>               | <b>3,546,981</b> | <b>405,978</b> | <b>485,824</b> | <b>516,118</b> | <b>467,084</b> | <b>399,249</b> | <b>2,274,253</b> | <b>5,821,233</b>      | <b>5,821,233</b> |
| <i>May 2016 Change</i>     |                  |                |                |                |                |                |                  |                       |                  |
| <b>PMB</b>                 |                  |                |                |                |                |                |                  |                       |                  |
| <i>Change to PMB</i>       | 0                | 0              | 0              | 32,893         | -3,268         | 3,271          | 32,896           | 32,896                | 32,896           |
| <b>MR</b>                  |                  |                |                |                |                |                |                  |                       |                  |
| <i>Change to MR</i>        | 0                | 0              | 0              | -10,072        | -11,616        | -7,208         | -28,896          | -28,896               | -28,896          |
| <b>Fee</b>                 |                  |                |                |                |                |                |                  |                       |                  |
| <i>Change to Fee</i>       | 0                | 0              | 0              | 0              | 0              | 0              | 0                | 0                     | 0                |
| <b>Total Change</b>        | <b>0</b>         | <b>0</b>       | <b>0</b>       | <b>22,820</b>  | <b>-14,884</b> | <b>-3,937</b>  | <b>4,000</b>     | <b>4,000</b>          | <b>4,000</b>     |
| <i>May 2016 Estimate</i>   |                  |                |                |                |                |                |                  |                       |                  |
| PMB                        | 3,391,477        | 391,653        | 471,323        | 488,884        | 418,506        | 360,480        | 2,130,846        | 5,522,322             | 5,522,322        |
| MR                         | 0                | 0              | 0              | 22,752         | 23,999         | 16,821         | 63,572           | 63,572                | 63,571           |
| Fee                        | 155,504          | 14,325         | 14,501         | 27,303         | 9,696          | 18,011         | 83,835           | 239,339               | 239,339          |
| <b>Total</b>               | <b>3,546,981</b> | <b>405,978</b> | <b>485,824</b> | <b>538,939</b> | <b>452,200</b> | <b>395,312</b> | <b>2,278,253</b> | <b>5,825,234</b>      | <b>5,825,232</b> |

**Changes to/Utilization of Management Reserve in May 2016**

|  | FY2009-2013 | FY2014   | FY2015   | FY2016         | FY2017         | FY2018        | FY2014-2018    | Total          |
|--|-------------|----------|----------|----------------|----------------|---------------|----------------|----------------|
| <b>April 2016 MR Totals</b>            |             |          |          |                |                |               |                |                |
| RL-0011                                | 0           | 0        | 0        | 7,585          | 7,375          | 0             | 14,959         | 14,959         |
| RL-0012                                | 0           | 0        | 0        | 6,519          | 14,120         | 10,345        | 30,984         | 30,984         |
| RL-0013                                | 0           | 0        | 0        | 8,072          | 1,716          | 2,668         | 12,457         | 12,457         |
| RL-0030                                | 0           | 0        | 0        | 6,669          | 6,500          | 3,220         | 16,389         | 16,389         |
| RL-0040                                | 0           | 0        | 0        | 1,815          | 941            | 682           | 3,438          | 3,438          |
| RL-0041                                | 0           | 0        | 0        | 4,096          | 2,800          | 7,000         | 13,896         | 13,896         |
| RL-0042                                | 0           | 0        | 0        | 47             | 184            | 113           | 344            | 344            |
| <b>Total</b>                           | <b>0</b>    | <b>0</b> | <b>0</b> | <b>34,803</b>  | <b>33,635</b>  | <b>24,029</b> | <b>92,467</b>  | <b>92,467</b>  |
| <b>May 2016 MR Changes/Utilization</b> |             |          |          |                |                |               |                |                |
| RL-0011                                | 0           | 0        | 0        | -3,554         | -3,554         | 0             | -7,107         | -7,107         |
| RL-0012                                | 0           | 0        | 0        | -6,519         | -7,635         | -7,208        | -21,361        | -21,361        |
| RL-0013                                | 0           | 0        | 0        |                |                |               | 0              | 0              |
| RL-0030                                | 0           | 0        | 0        | 0              | -427           | 0             | -427           | -427           |
| RL-0040                                | 0           | 0        | 0        |                |                |               | 0              | 0              |
| RL-0041                                | 0           | 0        | 0        |                |                |               | 0              | 0              |
| RL-0042                                | 0           | 0        | 0        |                |                |               | 0              | 0              |
| <b>Total</b>                           | <b>0</b>    | <b>0</b> | <b>0</b> | <b>-10,072</b> | <b>-11,616</b> | <b>-7,208</b> | <b>-28,896</b> | <b>-28,896</b> |
| <b>May 2016 MR Totals</b>              |             |          |          |                |                |               |                |                |
| RL-0011                                | 0           | 0        | 0        | 4,031          | 3,821          | 0             | 7,852          | 7,852          |
| RL-0012                                | 0           | 0        | 0        | 0              | 6,486          | 3,137         | 9,623          | 9,623          |
| RL-0013                                | 0           | 0        | 0        | 8,072          | 1,716          | 2,668         | 12,457         | 12,457         |
| RL-0030                                | 0           | 0        | 0        | 6,669          | 6,073          | 3,220         | 15,962         | 15,962         |
| RL-0040                                | 0           | 0        | 0        | 1,815          | 941            | 682           | 3,438          | 3,438          |
| RL-0041                                | 0           | 0        | 0        | 4,096          | 2,800          | 7,000         | 13,896         | 13,896         |
| RL-0042                                | 0           | 0        | 0        | 47             | 184            | 113           | 344            | 344            |
| <b>Total</b>                           | <b>0</b>    | <b>0</b> | <b>0</b> | <b>24,731</b>  | <b>22,020</b>  | <b>16,821</b> | <b>63,572</b>  | <b>63,571</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 -5/31/2016                  |                 |         |        | Planned Subcontracting:  | \$2,564,285,972 |
| Reporting Category                    |                 |         |        | Contract-to-date awards:   | \$2,356,967,214 |
|                                       |                 |         |        | Bal remaining to award:  | \$207,318,758   |
|                                       | \$ Value        | %       | Goal % | Goal award\$   | Bal to Goal     |
| SB                                    | \$1,247,214,009 | 52.92%  | 49.3%  | \$1,264,192,984  | \$16,978,976    |
| SDB                                   | \$216,671,811   | 9.19%   | 8.2%   | \$210,271,450  | -\$6,400,361    |
| SWOB                                  | \$247,676,209   | 10.51%  | 7.5%   | \$192,321,448  | -\$55,354,761   |
| HUB                                   | \$47,944,819    | 2.03%   | 2.2%   | \$56,414,291   | \$8,469,473     |
| VOSB                                  | \$160,188,943   | 6.80%   | 3.5%   | \$89,750,009   | -\$70,438,934   |
| SDVO                                  | \$85,555,614    | 3.63%   | 1.3%   | \$33,335,718   | -\$52,219,897   |
| NAB                                   | \$43,148,825    | 1.83%   | N/A    | PRC clause H.20 small business requirement<br>≥ 17% of CHPRC Contract Price performed by SB. |                 |
| Large                                 | \$620,312,374   | 26.32%  | N/A    |  |                 |
| GOVT                                  | \$2,392,905     | 0.10%   | N/A    |  |                 |
| GOVT CONT                             | \$482,866,522   | 20.49%  | N/A    |  |                 |
| EDUCATION                             | \$104,135       | 0.00%   | N/A    |  |                 |
| NONPROFIT_                            | \$3,713,831     | 0.16%   | N/A    | CHPRC Contract Value:  | \$5,732,255,464 |
| FOREIGN                               | \$363,437       | 0.02%   | N/A    | 17% rqmt:  | \$974,483,429   |
| Total                                 | \$2,356,967,214 | 100.00% | N/A    | SB actual:   | \$1,247,214,009 |
|                                       |                 |         |        | Bal to rqmt  | -\$272,730,580  |

Notes:

1. Since the CHPRC contract award in October 2008, CHPRC has subcontracted over \$2.3 billion in goods and services with over 52 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.2.3.6     | PBS-0013, Transuranic Waste Certification | WIPP provides shipping resources and manages the schedule for transportation of these containers to WIPP. The schedule is variable and the number of shipments is controlled by DOE-HQ on a complex-wide priority. Cost for shipment of TRU waste offsite is borne by the Carlsbad Field Office. | Ongoing |

# Section A

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



T. E. Bratvold  
Vice President for  
PFP Closure Project

May 2016  
CHPRC-2016-05, Rev. 1  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

The PFP Closure Project continues to maintain PFP facilities compliant with authorization agreement requirements.

| <i>Key Performance Indicators</i>                   | <i>Current Month</i> | <i>Contract To Date</i> |
|---|----------------------|-------------------------|
| Glovebox/ Hood Removed or Dispositioned in Place    | -                    | 228 gloveboxes/hoods    |
| KPP Rooms/Areas Ready for Demo                      | -                    | 60 rooms/areas          |
| Asbestos/ACM Removed                                | 210                  | 25,986 feet             |
| Process Vacuum Piping Dispositioned                 | 571                  | 4,478 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                            | -                    | 44 structures           |
| Buildings Demolished or Removed                     | -                    | 44 structures           |
| Non-radioactive Waste Shipped                       | -                    | 73 m <sup>3</sup>       |
| TRU/TRU-M Shipped                                   | 17m <sup>3</sup>     | 2,150 m <sup>3</sup>    |
| LLW/MLLW Shipped                                    | 35m <sup>3</sup>     | 7,056 m <sup>3</sup>    |

The removal of plutonium-contaminated process equipment continued with a particular focus on removing gloveboxes, associated piping, and ductwork. The total number of gloveboxes removed to date is at 98 percent complete.

Significant accomplishments in May included:

- Performed 236-Z PRF Canyon strongbacks removal, decontamination and characterization.
- Completed vacuuming of the 236-Z PRF Gallery Gloveboxes.
- Completed decontamination wash-down of the 236-Z PRF Gallery Gloveboxes.
- Abated 210 feet of asbestos.
- Removed or dispositioned in place 571 feet of process vacuum piping.
- Removed or dispositioned in place 84 feet of E4 ducting.
- Shipped 17m<sup>3</sup> TRU/TRU-M Waste.
- Shipped 35m<sup>3</sup> LLW/MLLW.
- Completed E-4 removal and load out from 242-Z.
- Completed 242-Z tank isolation on mezzanine of control room.
- Completed packaging and waste load out from 242-Z mezzanine in the control room.

## 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 | 90%    |
|                   |  |   | 3. Issue report documenting thorough inspection of 234-5Z | 01/26/17 | 0%     |
|                   |  |   | 4. Issue report documenting thorough inspection of 291-Z  | 01/31/17 | 0%     |
| 16-EMS-PFP-OB1-T2 | Minimize emissions resulting from demolition of 234-5Z, 236-Z, 242-Z, and 291-Z. | Develop an air dispersion model that will guide the D4 processes to keep radiological emissions as low as reasonably achievable below the regulatory limit of 10 mrem/year.   | 5. Issue air dispersion modeling report                   | 12/31/15 | 100%   |

## TARGET ZERO PERFORMANCE

|                                      | Current Month | Rolling 12 Month | Comment  |
|--------------------------------------|---------------|------------------|--|
| Days Away, Restricted or Transferred | 0             | 1                | N/A  |
| Total Recordable Injuries            | 0             | 1                | N/A  |
| First Aid Cases                      | 5             | 72               | <ul style="list-style-type: none"> <li>• 5/9/2016 – Employee developed a rash after handling fire blankets. He was taken to HPMC, evaluated and released to work without restriction. (24001)</li> <li>• 5/9/2016 – Employee developed a rash after handling fire blankets. RCTs performed surveys on employee's forearms. Employee noticed fiberglass like filaments on pant legs of his modesty clothing. He was taken to HPMC, evaluated and released to work without restriction. (24002)</li> <li>• 5/6/2016 – Employee was supporting a team in the Duct Level and performing RAD surveys from a ladder. As the employee turned to set down his instrument from the ladder, he felt a tweak in his lower back. Employee used OTC medicine and returned to work. (24003)</li> <li>• 5/10/2016 – Employee was in the process of walking when he inadvertently stepped off a concrete slab about one foot in height, falling and scraping his right knee and elbow. Wound skin care was applied and employee returned to work. (24006)</li> <li>• 5/20/2016 – Employee was in the process of packaging equipment via a glove box and inadvertently struck the left side of his head/face near the eye, on one of the glove box window "acorn" nuts. Employee noticed he was bleeding, notified an RCT, and immediately left the zone. The employee received nasal smears and was taken to HPMC for evaluation and treatment. Afterwards the employee was taken to Richland to receive a wound count. (24015)</li> </ul> |
| Near Misses                          | 0             | 0                | N/A  |

## KEY ACCOMPLISHMENTS

### 11.02 Maintain Safe & Compliant PFP

- Drafted a revision to DSA Revision 13 to allow the use of a remotely operated mobile crane within the 236-Z Canyon as a contingency should the installed crane malfunction and not be repairable.

### 11.05 Disposition PFP Facility

#### 234-5Z

- Duct Level:
  - Abated 210 feet of asbestos.
  - Removed or dispositioned in place 571 feet of process vacuum piping.
  - Removed or dispositioned in place 84 feet of E4 ducting.

#### PFP Waste Operations

- Shipped 17m<sup>3</sup> TRU/TRU-M waste.
- Shipped 35m<sup>3</sup> LLW/MLLW.

#### 236-Z PRF

- Canyon:
  - Returned Canyon Crane to service on May 19.
  - Performed 236-Z PRF Canyon strongbacks removal, decontamination and characterization.
- Gallery Gloveboxes:
  - Completed vacuuming of the 236-Z PRF Gallery Gloveboxes.
  - Completed decontamination wash-down of the 236-Z PRF Gallery Gloveboxes.

#### 242-Z

- Completed E-4 removal and load out from 242-Z.
- Completed tank isolation on mezzanine of control room.
- Completed packaging and waste load out from mezzanine in control room.

## MAJOR ISSUES

**Issue:**

**PRF Canyon floor scrapings from J Pan, staged in collection trays on the Canyon floor expanded resulting in a clear and unanticipated chemical reaction. A previously noted hard substance was observed within the loose debris on J Pan. This hard substance was originally thought to be concrete (congealed, spalled wall fines) but upon further review was believed to be a plasticized material, which was not expected.**

**Corrective Action:**

- Unpackage and place previously packaged J Pan waste back in the PRF Canyon.
- Develop waste packaging instructions for J Pan wastes.
- PFP will perform a visual inspection of waste drums that contain PRF canyon waste prior to shipment from the facility.

**Status:**

- Waste packaging instructions for J Pan wastes were developed and waste has been packaged per the waste packaging instructions.
- PFP is performing 100 percent visual inspections of waste drums that contain PRF canyon waste prior to shipment.
- Waste Shipment of PRF Canyon Waste to CWC has commenced with shipment of Non-J Pan wastes.
- PNNL analysis of waste samples is complete. Fauske and Associates has completed their evaluation of the potential for a self-accelerating thermal reaction within drums.
- PFP is preparing a final report documenting an evaluation of the PNNL analysis results, the Fauske and Associates evaluation, and an analysis of radiolytic gas generation.

**Issue:**

**On April 28, 2016, the wire rope on the PRF Crane jumped a sheave on the drum causing the rope to jam in the block during re-installation of a canyon strong back. The crane and strong back were placed in a safe configuration while a plan was developed to investigate the issue.**

**Corrective Action:**

- Perform a canyon entry to inspect the wire rope and sheaves.
- Re-string the wire rope back onto the drum and block sheaves.
- Perform wire rope inspection and test functionality of crane.

**Status:**

- Initial inspection of viewable wire rope indicates minimal damage.
- Wire rope has been realigned on the drum.
- Wire rope was realigned on the block, followed by a complete wire rope inspection and functionality test.
- Corrective maintenance was completed on May 18 and crane was returned to service on May 19.

## 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>May</b> .                      |   |   |  |  |                      |         |   |  |        |    |  |         |    |   |          |     |   |         |    |
| <b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)   |   |   |  |  |                      |         |   |  |        |    |  |         |    |   |          |     |   |         |    |
| No realized risks identified for RL-0011 in the month of <b>May</b> .  |   |   |  |  |                      |         |   |  |        |    |  |         |    |   |          |     |   |         |    |
| <b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)  |   |   |  |  |                      |         |   |  |        |    |  |         |    |   |          |     |   |         |    |
| <b>Lifecycle Risk Triggers</b> (Risk could be realized at any point of the project)  |   |   |  |  |                      |         |   |  |        |    |  |         |    |   |          |     |   |         |    |
| 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> \$158K, 20 days | <span style="color: yellow; font-size: 1.5em;">●</span> | <span style="color: black; font-size: 1.5em;">↔</span> | <p><b>Risk Trigger:</b> Will continue throughout project lifecycle until Demolition activities commence.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="text-align: center;">Mitigation action(s)</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>Perform gamma imaging surveys in conjunction with final PRF canyon cleanup to strategically focus final decontamination.</td> <td style="text-align: center;">7/7/16</td> <td style="text-align: center;">75</td> </tr> <tr> <td>Revise the project DQO to incorporate provisions to leave for demolition higher residual levels of contamination when supported by the air dispersion model and waste operations</td> <td style="text-align: center;">6/23/16</td> <td style="text-align: center;">90</td> </tr> <tr> <td>Develop SAP for steam lines in 291-Z fanhouse to confirm current TSI labelling. There is likelihood that steam lines were presumptively labelled and may not require abatement.</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> <tr> <td>Complete 234-5Z Duct Level and backside inspections to identify piping with TSI dropping through to the first floor ceiling void.</td> <td style="text-align: center;">7/28/16</td> <td style="text-align: center;">85</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b><br/>                     The risk component associated with final characterization of the PRF canyon, gallery gloveboxes, and strongbacks remains critical. This is due to the likelihood that final characterization could demonstrate, after completion of current cleanup activity, that further decontamination of structures and components is necessary. Mitigation actions are being completed in conjunction with ongoing cleanup activity in progress; therefore, risk mitigation is linked to the progress of the deactivation crews. <b>Final safeguards termination NDA surveys in the Gallery Gloveboxes are in progress. PRF crane failure imposed operational delays that impacted completion of the gamma imaging surveys. The draft revision to the DQO has been completed. The forecast date has been adjusted to incorporate comments received from Nuclear Safety, Rad Protection, NDA, and Safeguards programs prior to final issuance.</b><br/>                     The risk component associated with late discovery of asbestos in need of further removal/abatement is no longer critical. Duct level inspections of crawlspaces are in progress. Confirmation of TSI in and above the A-labs resulted in allocation of insulator resources to commence abatement activity, which has slowed progress toward completion of remaining inspections. Project focus now is placed on D&amp;D crews opening up walls to create access to piping suspected to carry TSI. The forecast date for completion of remaining TSI inspections has been adjusted accordingly. Given the sufficient lead time, there is greater confidence that the added work can be completed by existing insulator crew strength assigned to support the project. In this regard, the work has been incorporated into the ETC. No alternative course of actions needed at this time.</p> | Mitigation action(s) | FC Date | % | Perform gamma imaging surveys in conjunction with final PRF canyon cleanup to strategically focus final decontamination. | 7/7/16 | 75 | Revise the project DQO to incorporate provisions to leave for demolition higher residual levels of contamination when supported by the air dispersion model and waste operations | 6/23/16 | 90 | Develop SAP for steam lines in 291-Z fanhouse to confirm current TSI labelling. There is likelihood that steam lines were presumptively labelled and may not require abatement. | Complete | 100 | Complete 234-5Z Duct Level and backside inspections to identify piping with TSI dropping through to the first floor ceiling void. | 7/28/16 | 85 |
| Mitigation action(s)   | FC Date   | %   |  |  |                      |         |   |  |        |    |  |         |    |   |          |     |   |         |    |
| Perform gamma imaging surveys in conjunction with final PRF canyon cleanup to strategically focus final decontamination.   | 7/7/16  | 75  |  |  |                      |         |   |  |        |    |  |         |    |   |          |     |   |         |    |
| Revise the project DQO to incorporate provisions to leave for demolition higher residual levels of contamination when supported by the air dispersion model and waste operations | 6/23/16   | 90  |  |  |                      |         |   |  |        |    |  |         |    |   |          |     |   |         |    |
| Develop SAP for steam lines in 291-Z fanhouse to confirm current TSI labelling. There is likelihood that steam lines were presumptively labelled and may not require abatement.  | Complete  | 100   |  |  |                      |         |   |  |        |    |  |         |    |   |          |     |   |         |    |
| Complete 234-5Z Duct Level and backside inspections to identify piping with TSI dropping through to the first floor ceiling void.  | 7/28/16   | 85  |  |  |                      |         |   |  |        |    |  |         |    |   |          |     |   |         |    |

| Risk Title   | Unmitigated Risk Impacts  | Assessment  |   | Comments   |  |                |          |
|--|---|---|---|--|--|----------------|----------|
|  |   | Month   | Trend   |  |  |                |          |
| <b>RL-0011/WBS-011.OA</b>  |   |   |   |  |  |                |          |
| <b>FY2016 Risk Triggers</b> (Risk could be realized in FY2016)   |   |   |   |  |  |                |          |
| PFP-DEMO-02: Air Modeling Increases Equipment Removal/Decontamination for Demo   | Air Dispersion identified additional MAR reduction higher than planned or RL directs constrains from Revision 12 SER, resulting in additional decontamination/fixatives and equipment removal prior to initiating open-air demolition 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> \$0, 16 days<br><br>*Cost increase will result in cost per day impacts from crews, and hotel load. |    |    | <b>Risk Trigger:</b> July 6, 2015  |  |                |          |
|  |   |   |   | <b>Mitigation action(s)</b>  |  | <b>FC Date</b> | <b>%</b> |
|  |   |   |   | Process Revision 2 to the PNNL Air Dispersion Model  |  | 6/16/16        | 95       |
|  |   |   |   | Once the residual material/contamination is quantified, work with regulators to identify controls to allow for equipment removal and demolition as planned.  |  | 7/12/16        | 75       |
| <b>Mitigation Assessment:</b><br>Completion of Revision 2 to the PNNL Air Dispersion Model is expected June 16, 2016. Competing commitments and priorities at PNNL contributed to the delays for issue of the draft. This risk will remain open until Revision 2 of the air dispersion model is completed and it is determined that the risk no longer poses a threat (i.e., that measured canyon wall and strongback values are within bounding limits). At this time no alternative course of actions needed. Note: An updated version (Revision 3) will be issued after final NDA has been completed. Revision 3 will also address input expected from DNFSB staff during planned visit June 14-16. |   |   |   |  |  |                |          |
| <b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)  |   |   |   |  |  |                |          |
| <b>FY2016 Risk Triggers</b> (Risk could be realized in FY2016)   |   |   |   |  |  |                |          |
| PFP-PRF-22: OPP: NDA Process Allows for Section Results to be used   | Improved NDA process allows for disposition of Gallery Gloveboxes into waste containers by using section data rather than summation of entire glovebox, resulting in schedule efficiencies.<br><b>Risk Handling Strategy:</b> Exploit<br><br><b>Probability:</b> Likely (75% to 90%)<br><b>Worst Case Impacts:</b> \$0, 60 days<br><br>*Cost savings will result in cost per day from crews, and hotel load.  |  |  | <b>Risk Trigger:</b> During glovebox isolations NDA process allows for section results to be used.   |  |                |          |
|  |   |   |   | <b>Mitigation action(s)</b>  |  | <b>FC Date</b> | <b>%</b> |
|  |   |   |   | Complete West Gallery Glovebox Isolation - 2nd Floor, Vacuum Gallery Gloveboxes, And Wipe Down and Decon, Apply Fixative, and Characterize.  |  | 6/23/16        | 63       |
|  |   |   |   | <b>Mitigation Assessment:</b><br>The forecasted completion date for completing the West Gallery Glovebox Isolation slipped one day in the month of May. The delay in completing the mitigation action is due to the deactivation crew availability. The delay does not result in an alternative course of action at this time and there are no foreseeable impacts in the near future. The opportunity will continue to be tracked and monitored throughout the Gallery Glovebox subproject lifecycle. No alternative course of actions needed at this time. |  |                |          |
| <b>Unassigned Risks</b> (Pending ownership of identified risks/opportunities)  |   |   |   |  |  |                |          |
| No unassigned risks identified in the month of May.  |   |   |   |  |  |                |          |

## 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  | 9.4   | 5.7   | 8.0   | (3.8)                        | -39.9%                      | (2.3)                    | -40.2%                  |

Numbers are rounded to the nearest \$0.1 million.

#### CM Schedule Variance: (-\$3.8M/-39.9%)

The current period schedule variance relates to a point adjustment as a result of implementation of BCR-011C-16-006R0 to ensure compliance with EVMS-IH Requirements, specifically LOI 29.C.2, “Level of Effort (LOE) Work Packages with insignificant cumulative ACWP reviewed for purposes of preventing false variance reporting”, this BCR was processed to modify the earned value type from a select few activities on the RL-011.C2 project from LOE to Apportioned better aligning the demolition project management and cross-cutting support activities to the discrete work in support of the demolition of the Plutonium Finishing Plant. This resulted in negative BCWP as a point adjustment in the month of May for activities that were previously LOE. In addition, work scope associated with the demolition of 236-Z (PRF) not being performed as originally scheduled and unplanned repairs to the PRF Canyon Crane are also contributing to the unfavorable schedule variance. The demolition of the major PFP facilities has been delayed due to resources being redirected to support ready for demolition activities associated with 234-5Z and PRF (other project critical path work). Once the buildings are closer to being ready for demo and the resources are available, demolition of the ancillary buildings will occur leading to demolition of PRF. The first ancillary building demolition (225-WC) is scheduled for early June, while PRF demolition is scheduled to begin in September.

#### CM Cost Variance: (-\$2.3M/-40.2%)

The current period unfavorable cost variance relates to a point adjustment as a result of implementation of BCR-011C-16-006R0 to ensure compliance with EVMS-IH Requirements, specifically LOI 29.C.2, “LOE Work Packages with insignificant cumulative ACWP reviewed for purposes of preventing false variance reporting”, this BCR was processed to modify the earned value type from a select few activities on the RL-011.C2 project from LOE to Apportioned better aligning the demolition project management and cross-cutting support activities to the discrete work in support of the demolition of the PFP. This resulted in negative BCWP as a point adjustment in the month of May for activities that were previously LOE, largely contributing to the negative cost variance. In addition, the progress on discrete D&D work scope (apportioned), while a constant staff provides D&D support services. Subcontracted labor support costs are higher than planned due to extension of end date of field work as a result of impacts from discrete work scope being behind schedule. Consumable materials are costing more than planned due to the extended time frame that is taking to complete discrete field work and more Personal Protective Equipment (PAPRs, SCBA, etc.) to support implementation of more stringent radiological controls requirements are driving the increased costs for PFP to achieve Slab on Grade.

## 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   | 938.1                                    | 890.6                                    | 905.2                                  | (47.4)                       | -5.1%                       | (14.5)                   | -1.6%                   | 978.9                            | 1,030.3                            | (51.4)                             |

Numbers are rounded to the nearest \$0.1 million

### CTD Schedule Variance (-\$47.4M/-5.1%)

The CTD schedule variance relates to the progress on discrete D&D work scope (apportioned). Re-sequencing of D&D discrete work to align with availability of D&D workers caused 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, 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 Plutonium Reclamation Facility, 242-Z Americium Facility, and RMA/RMC 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 (i.e., 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 and failure of the PRF Canyon Crane. This is partially offset by recognized efficiencies in asbestos removal and working on future planned work in E4 duct removal. Completion of E4 characterization and scope avoidance of room characterization is also offsetting some of the unfavorable variance.

### CTD Cost Variance (-\$14.5M/-1.6%)

The Cost Variance is within reporting thresholds.

### Variance at Completion (-\$51.4M/-5.2%)

The Variance at Completion 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. The variance at completion is reflective of PFP's current projected date to reach slab on grade. The project is not expected to meet the Tri-Party Agreement milestone of slab on grade by September 30, 2016.

**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 | FY2016               |                      |                   |
|--|----------------------|----------------------|-------------------|
|  | Projected<br>Funding | Spending<br>Forecast | Spend<br>Variance |
| Spending Forecast                                  | 110.7                | 108.3                | 2.4               |
| Incremental Scope Pending<br>Change Management     | 0                    | 0                    | 0                 |
| RL-0011 - Total                                    | 110.7                | 108.3                | 2.4               |

Numbers are rounded to the nearest \$0.1 million

### Funds/Variance Analysis

FY2016 expected funding for RL-0011 remained steady at \$110.7 million. The FYSF for May decreased slightly from \$108.5 million to \$108.3.

### Critical Path Schedule

The PFP Critical Schedule Path is a resource driven float path. The current E4 team in the 234-5Z duct level completes E4 duct and filterbox removals, then transitions to miscellaneous decon throughout 234-5Z to get it into a ready for demo state. Demolition of 234-5Z will occur in the following sequence: 234-5ZA, Frontside, A-Labs, Backside Rooms/PPSL, RMA Process Lines, RMC Process Lines, and finally the RADTU & Basement areas. Once complete, the final step is stabilization of the PFP site leading to completion of the final Tri-Party Agreement milestone – M-083-00A - *PFP Facility Transition and Selection Disposition Activities*.

### Baseline Change Requests

BCR-011-16-007R0 – *MR Draw to Align Hotel Load with Ready for Demo Activities*

BCR-011C-16-006R0 – *Change EVM Type from LOE to Apportioned*

BCRA-PRC-16-042R0 – *HPIC Updates May 2016*

## MILESTONE STATUS

Hanford Federal Facility Agreement and Consent Order (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 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 | 09/30/16 |             | 7/19/17       | There was no change to the forecast completion date of the TPA Milestone for the PFP Project to reach Slab on Grade in July 2017. Stop works associated with PremAire breathing air suits/hoses in support of in-situ size reduction efforts, stop works associated with intrusive work in the 234-5Z duct level, safety pause associated with a radiological event, and reduction to five field work teams vs. eight, and increased durations to the E4 duct removal efforts caused the Tri-Party Agreement milestone projected completion date to gain 8 calendar days from the forecast date in the April report. This is as a result of identifying efficiencies to work parallel scope in the PRF canyon. As the PFP Project continues to make progress on the behind schedule critical path work scope being performed, efficiencies will continue to be evaluated and implemented to recover schedule delays. However, this Tri-Party Agreement completion is not expected to be met. Discussions have been initiated with the regulators to modify the completion date for the M-083-00A TPA milestone. |

## SELF-PERFORMED WORK

The Section H.20 clause, entitled “Self-Performed Work,” is addressed in the Overview.

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

None identified 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)

May 2016  
CHPRC-2016-05, Rev. 1  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

- The 100K Operations group continued maintaining facilities in a safe and compliant condition, supporting the Engineered Container Retrieval and Transfer System (ECRTS) Project work by supporting Annex construction In-Basin Construction activities and continued debris dose rating and relocation activities in 105KW Basin. The Operations team worked several monthly and quarterly routines during the period.
- Continued execution of MPAT with testing statused at 50 percent complete.
- Completed delivery of the Cell Storage equipment that will be installed in the T-Plant canyon to allow receipt and storage of the sludge transport and storage containers (STSC), (i.e. leveling frames, containment system, leak detectors) (PM-12-8-16).
- Reviews (internal & with RL) of the draft integrated 105K West Basin Document Safety Analysis (DSA) and Technical Safety Requirement (TSR) continued. Submittal of the safety basis to RL is on schedule for August 2016.
- Development of a criteria document for the transportation safety authorization is in progress. The change to the transportation safety approach has been incorporated into the STP Field Execution Schedule and the Transportation Safety Organization is preparing a cost estimate for producing the required products.
- Per direction from RL CHPRC implemented a BCR to adjust budget (BCWS) and associated earned value (BCWP) to equal actual costs for the CAP activities planned to start or started prior to October 1, 2015.

## EMS OBJECTIVES AND TARGET STATUS

None at this time.

### TARGET ZERO PERFORMANCE

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

## KEY ACCOMPLISHMENTS

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

- ECRS Process Equipment Procurement:
  - Procurement Set #2: GS Retrieval and Transfer System Components – CHPRC personnel accepted the final data package for the process system Pigs and HiLine delivered the process system PIGS to AVS.
  - Procurement Set #7: 105K West Annex, Stack Monitoring System – CHPRC awarded a Contract Release to Columbia Energy and Environmental Services (CEES). A formal kickoff meeting was conducted and CEES personnel have commenced execution of this work scope.
  - Procurement Set #8: Sludge Transport and Storage Container (STSC) Vessels – ABW Technologies completed fabrication, testing, and assembly of STSC 2-5.
  - Procurement Set #9: SS STSC Assemblies (Instrumentation & Appurtenances) – The final data packages for the Overflow Recovery Tools (ORTs) were accepted by CHPRC and AVS.
  - Procurement Set #11: Inert Gas and Auxiliary Ventilation System – Completed delivery of Inert Gas and Auxiliary Ventilation System, Nitrogen Purge/Supply Panels to Maintenance and Storage Facility (MASF). Task 6: Misc. Aux Vent System Components – This hardware was delivered to MASF for testing.
  - Procurement Set #14: SS Control System Panels – Task 8; IXM Piping, Rack, and Hose Assemblies – This hardware was delivered to MASF.
  - Procurement Set #15: GS Electrical Generator – HiLine personnel successfully completed factory acceptance testing of the electrical generator.
- MPAT Preparation/Initiation:
  - Executed test activities through fiscal month consistent with project schedule (approximately 40 percent complete).
  - Transferred IXM water header to construction for shipment and installation in the basin.
  - Balance of Auxiliary Ventilation System SSCs arrived at MASF and are being prepared for installation.
- KW Annex Construction:
  - Completed transfer of custody of Phase I construction material to Phase II construction contractor.
  - LMSI completed the installation of the telecommunications in the Annex (HLAN drops and speaker boxes).
- In Basin Modifications Construction:
  - Completed concrete placement for HHH shielding cap (outside Door 148) and filling Ingress/Egress box.
  - Installed Ion Exchange Module (IXM) Pipe Rack and supporting hoses.
  - The Transfer System Rupture Disk Skid was mobilized from MASF and installed underwater in the Basin.

### **T Plant Modifications for Sludge Storage Project**

- Fabrication/Procurements:
  - Completed delivery of the Cell Storage equipment that will be installed in the T-Plant canyon to allow receipt and storage of the sludge transport and storage containers (STSC), (i.e. leveling frames, containment system, leak detectors) (PM-12-8-16).

- o The SWOC FHA is complete.
- o Twenty-nine commercial grade dedication packages were updated by CEES and approved by CHPRC. Three travelers were also updated and approved by CHPRC.
- Construction:
  - o Continued North Load-Out Pit (NLOP) equipment relocation.

## MAJOR ISSUES

None currently identified.

## RISK MANAGEMENT STATUS

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

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

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

| Risk Title  | Unmitigated Risk Impacts  | Assessment   |       | Comments  |                         |           |         |   |  |        |         |    |  |        |         |    |                                       |        |         |    |   |        |         |    |                                |        |         |    |                                 |        |         |    |                                       |        |         |    |
|---|---|--|-------|---|-------------------------|-----------|---------|---|--|--------|---------|----|--|--------|---------|----|---------------------------------------|--------|---------|----|---|--------|---------|----|--------------------------------|--------|---------|----|---------------------------------|--------|---------|----|---------------------------------------|--------|---------|----|
|   |   | Month  | Trend |   |                         |           |         |   |  |        |         |    |  |        |         |    |                                       |        |         |    |   |        |         |    |                                |        |         |    |                                 |        |         |    |                                       |        |         |    |
| <b>RL-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>May</b> . |   |  |       |   |                         |           |         |   |  |        |         |    |  |        |         |    |                                       |        |         |    |   |        |         |    |                                |        |         |    |                                 |        |         |    |                                       |        |         |    |
| <b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>  |   |  |       |   |                         |           |         |   |  |        |         |    |  |        |         |    |                                       |        |         |    |   |        |         |    |                                |        |         |    |                                 |        |         |    |                                       |        |         |    |
| STP-123-B:<br>Design Maturity - ECRTS Annex/In-Basin Equip.   | Finalization of design media for the ECRTS equipment installation will result in changes to both cost and schedule.<br><br><b>Risk Handling Strategy:</b> Accept<br><br><b>Probability:</b> Medium (26% to 74%)<br><b>Worst Case Impacts:</b> \$912K, 64 days | ●  | ↔     | <b>Risk Event:</b><br>The project incurred additional cost in <b>May</b> for <b>construction review indicating the Nitrogen and P10 bottles require weather protection for bottle storage (DCN-391)</b> . Other DCNs identified in the engineering action list are being developed including but not limited to: <b>Preparation Signage Schedule (DCN-209)</b> ; Release Shielding Calculations and KW Modified Annex ALARA Design Review Checklist (DCN-068), Radcon related missing design-Add P-10 Gas Lines to Annex (DCN-391), Engineering Change Request for CAM installation in Basin (ECR-16-000478), and Shield Cave Mounting (DCN-422), as well changes to I&C Drawing Updates (DCN-405). The project continues to evaluate the DCN and the impacts to the project. |                         |           |         |   |  |        |         |    |  |        |         |    |                                       |        |         |    |   |        |         |    |                                |        |         |    |                                 |        |         |    |                                       |        |         |    |
|   |   | <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 70%;">Risk recovery action(s)</th> <th style="width: 10%;">Risk Date</th> <th style="width: 10%;">FC Date</th> <th style="width: 10%;">%</th> </tr> </thead> <tbody> <tr> <td>Preparation Signage Schedule (DCN-209)</td> <td>4/4/16</td> <td>6/16/16</td> <td>70</td> </tr> <tr> <td>Release Shielding Calculations and KW Modified Annex ALARA Design Review Checklist (068)</td> <td>3/7/16</td> <td>6/13/16</td> <td>80</td> </tr> <tr> <td>Add P-10 Gas Lines to Annex (DCN-391)</td> <td>3/7/16</td> <td>6/23/16</td> <td>75</td> </tr> <tr> <td>ECR for CAM installation in Basin (ECR-16-000478)</td> <td>3/7/16</td> <td>6/9/16*</td> <td>90</td> </tr> <tr> <td>Shield Cave Mounting (DCN-422)</td> <td>3/7/16</td> <td>6/16/16</td> <td>80</td> </tr> <tr> <td>I&amp;C Drawing Updates (DCN - 405)</td> <td>3/7/16</td> <td>6/15/16</td> <td>10</td> </tr> <tr> <td>Sand Filter Shielding Calc. (DCN-413)</td> <td>3/7/16</td> <td>6/6/16*</td> <td>90</td> </tr> </tbody> </table> |       |   | Risk recovery action(s) | Risk Date | FC Date | % | Preparation Signage Schedule (DCN-209) | 4/4/16 | 6/16/16 | 70 | Release Shielding Calculations and KW Modified Annex ALARA Design Review Checklist (068) | 3/7/16 | 6/13/16 | 80 | Add P-10 Gas Lines to Annex (DCN-391) | 3/7/16 | 6/23/16 | 75 | ECR for CAM installation in Basin (ECR-16-000478) | 3/7/16 | 6/9/16* | 90 | Shield Cave Mounting (DCN-422) | 3/7/16 | 6/16/16 | 80 | I&C Drawing Updates (DCN - 405) | 3/7/16 | 6/15/16 | 10 | Sand Filter Shielding Calc. (DCN-413) | 3/7/16 | 6/6/16* | 90 |
| Risk recovery action(s)   | Risk Date   | FC Date  | %     |   |                         |           |         |   |  |        |         |    |  |        |         |    |                                       |        |         |    |   |        |         |    |                                |        |         |    |                                 |        |         |    |                                       |        |         |    |
| Preparation Signage Schedule (DCN-209)  | 4/4/16  | 6/16/16  | 70    |   |                         |           |         |   |  |        |         |    |  |        |         |    |                                       |        |         |    |   |        |         |    |                                |        |         |    |                                 |        |         |    |                                       |        |         |    |
| Release Shielding Calculations and KW Modified Annex ALARA Design Review Checklist (068)  | 3/7/16  | 6/13/16  | 80    |   |                         |           |         |   |  |        |         |    |  |        |         |    |                                       |        |         |    |   |        |         |    |                                |        |         |    |                                 |        |         |    |                                       |        |         |    |
| Add P-10 Gas Lines to Annex (DCN-391)   | 3/7/16  | 6/23/16  | 75    |   |                         |           |         |   |  |        |         |    |  |        |         |    |                                       |        |         |    |   |        |         |    |                                |        |         |    |                                 |        |         |    |                                       |        |         |    |
| ECR for CAM installation in Basin (ECR-16-000478)   | 3/7/16  | 6/9/16*  | 90    |   |                         |           |         |   |  |        |         |    |  |        |         |    |                                       |        |         |    |   |        |         |    |                                |        |         |    |                                 |        |         |    |                                       |        |         |    |
| Shield Cave Mounting (DCN-422)  | 3/7/16  | 6/16/16  | 80    |   |                         |           |         |   |  |        |         |    |  |        |         |    |                                       |        |         |    |   |        |         |    |                                |        |         |    |                                 |        |         |    |                                       |        |         |    |
| I&C Drawing Updates (DCN - 405)   | 3/7/16  | 6/15/16  | 10    |   |                         |           |         |   |  |        |         |    |  |        |         |    |                                       |        |         |    |   |        |         |    |                                |        |         |    |                                 |        |         |    |                                       |        |         |    |
| Sand Filter Shielding Calc. (DCN-413)   | 3/7/16  | 6/6/16*  | 90    |   |                         |           |         |   |  |        |         |    |  |        |         |    |                                       |        |         |    |   |        |         |    |                                |        |         |    |                                 |        |         |    |                                       |        |         |    |
|   |   | <p><i>*Date changes reflect definitive updates of estimated scope completion dates.</i></p> <p><b>Recovery Action Assessment:</b><br/>                     DCNs are identified and reviewed at the weekly engineering meeting to define a path forward for the pending changes. The DCNs identified to-date are expected to be cleared by <b>July month end</b>.<br/>                     During the weekly engineering meetings, the project identifies and reviews <b>DCNs and define a path forward for the pending changes</b>. A Title III manager has been hired to coordinate the design changes with the construction group.<br/>                     Mitigation actions are in place that are expected to reduce the probability of the risk occurrence and reduces the potential cost and schedule impacts. Additionally, the risk will continue to be monitored. No additional mitigation actions have been identified at this time.</p>  |       |   |                         |           |         |   |  |        |         |    |  |        |         |    |                                       |        |         |    |   |        |         |    |                                |        |         |    |                                 |        |         |    |                                       |        |         |    |

| Risk Title   | Unmitigated Risk Impacts   | Assessment  |   | Comments   |                         |           |         |   |  |         |          |   |  |        |          |     |                             |        |         |   |
|--|--|---|---|--|-------------------------|-----------|---------|---|--|---------|----------|---|--|--------|----------|-----|-----------------------------|--------|---------|---|
|  |  | Month   | Trend   |  |                         |           |         |   |  |         |          |   |  |        |          |     |                             |        |         |   |
| <b>RL-0012/WBS-012</b>   |  |   |   |  |                         |           |         |   |  |         |          |   |  |        |          |     |                             |        |         |   |
| STP-123-T: Design Maturity - T-Plant   | <p>The final Nitrogen System design is pending FHA update. The construction specification is currently in development. In addition, changes resulting from the PDSA impact the design. There is additional risk with bidder interpretation of the facility ECRs. They do not clearly provide the entire scope of the contractor's work and clarifying bid document details are required.</p> <p><b>Risk Handling Strategy:</b> Accept</p> <p><b>Probability:</b> Very Likely (&gt;90%)<br/> <b>Worst Case Impacts:</b> \$200K, 96 days</p> |  |  | <p><b>Risk Event:</b><br/>                     The risk is an emerging risk based on constructability reviews of the FMPs. The risk associated with nitrogen purge safety boundary impacts are the additional cost and resources associated with updating the design and providing constructability aids, and conducting material takeoffs.</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>Work with T-Plant and STP Program to find ways to accelerate MDSA Revision 11 implementation</td> <td>5/31/16</td> <td>Planning</td> <td>0</td> </tr> <tr> <td>CHPRC Nuclear safety has drafted a transmittal letter and is waiting on the SWOC FHA and 4 approvals of the MDSA/TSRs before re-submitting</td> <td>3/3/16</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>RL approval of MDSA and FHA</td> <td>3/3/16</td> <td>9/28/16</td> <td>0</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b><br/>                     T-Plant design documents associated with the nitrogen purge system have been issued via ECR-15-000336. The design documents have been given to the contractor for bidding purposes, even though the construction specification, HNF-8764 Revision 2, and ECR-15-000336, states that the installation of the nitrogen bottle rack, bottles, and bottle manifold are on hold, pending RL's approval of the MDSA (Revision 11). All indications, based on discussions with RL, are that Revision 11 of the MDSA will be approved with a nitrogen purge boundary consistent with the design (ECR-15-000336). CHPRC has received comments from RL in a letter (16-NSD-0027_RL) on March 1, requiring revision of the MDSA and the FHA. CHPRC has incorporated RL comments and has updated the FHA &amp; MDSA. CHPRC transmitted The MDSA Revision 11 and FHA to RL for approval on May 30 2016. If the MDSA and FHA are not approved as submitted, there is a potential for the design and equipment safety designations to change. Engineering will remove the hold on the Nitrogen System with the exception of the nitrogen bottles and racks. This will allow installation of the NPS with the exception of the bottles and rack until RL approval of Revision 11. RL review and approval of the MDSA Revision 11 and FHA are needed by July 2016 to support the project schedule. RL approval is scheduled to occur within 120 days upon receipt. Current MDSA approval by RL is scheduled for September 28, 2016. However, the bottles and rack cannot be installed until MDSA is implemented, which is anticipated in January 2017. During the weekly engineering meetings, the T-Plant project identification and reviewed ECRs and define a path forward for the pending changes. A Title III Engineering manager is in place to coordinate the design changes with the construction group.<br/>                     Mitigation actions are in place to reduce the probability of the risk occurrence and reduces the potential cost and schedule impact. Additionally, the risk will continue to be monitored. No additional mitigation actions have been identified at this time.</p> | Risk recovery action(s) | Risk Date | FC Date | % | Work with T-Plant and STP Program to find ways to accelerate MDSA Revision 11 implementation | 5/31/16 | Planning | 0 | CHPRC Nuclear safety has drafted a transmittal letter and is waiting on the SWOC FHA and 4 approvals of the MDSA/TSRs before re-submitting | 3/3/16 | Complete | 100 | RL approval of MDSA and FHA | 3/3/16 | 9/28/16 | 0 |
| Risk recovery action(s)  | Risk Date  | FC Date   | %   |  |                         |           |         |   |  |         |          |   |  |        |          |     |                             |        |         |   |
| Work with T-Plant and STP Program to find ways to accelerate MDSA Revision 11 implementation   | 5/31/16  | Planning  | 0   |  |                         |           |         |   |  |         |          |   |  |        |          |     |                             |        |         |   |
| CHPRC Nuclear safety has drafted a transmittal letter and is waiting on the SWOC FHA and 4 approvals of the MDSA/TSRs before re-submitting | 3/3/16   | Complete  | 100   |  |                         |           |         |   |  |         |          |   |  |        |          |     |                             |        |         |   |
| RL approval of MDSA and FHA  | 3/3/16   | 9/28/16   | 0   |  |                         |           |         |   |  |         |          |   |  |        |          |     |                             |        |         |   |

| Risk Title  | Unmitigated Risk Impacts  | Assessment |       | Comments  |                         |           |         |   |  |        |          |    |   |         |          |     |   |         |          |    |
|---|---|------------|-------|---|-------------------------|-----------|---------|---|--|--------|----------|----|---|---------|----------|-----|---|---------|----------|----|
|   |   | Month      | Trend |   |                         |           |         |   |  |        |          |    |   |         |          |     |   |         |          |    |
| <b>RL-0012/WBS-012</b>  |   |            |       |   |                         |           |         |   |  |        |          |    |   |         |          |     |   |         |          |    |
| STP-093-T: Operational Resources Limitations for Construction Support - T-Plant Modifications   | <p>During installation the T-Plant modifications and equipment installation activities, which are currently planned in the FES, compete for the same operational resources (e.g., NCO's, HPT's, Shift Managers, RA, RM, Work Planners). In addition, emergent resource limitations also emerge (e.g., training, sick leave, vacation, short/long term) causing equipment installation delays.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Very Likely (&gt; 90%)<br/> <b>Worst Case Impacts:</b> \$512K, 32 days</p> | ●          | ↑     | <p><b>Risk Event:</b><br/>                     The project incurred delays as a result of Operation Personnel availability. Canyon work was delayed because PTS did not have an approved work package to allow the contractor to perform work scope within their SOW and limited Ops Personnel available to support the NLOP removal. Additional cost and schedule delays continue such as TSR to support of T-Plant work activities; PTS not having appropriate work package to support subcontractor work scope; RCTs who needed to complete routine surveys before assisting construction activities; IH having to update calibration of equipment; and the need for Facility support to complete TSR work activities before construction work activities could commence. Overall, since the beginning of April there has been 650 man hours of lost time. On average, less than 2-hours of Canyon work per day has been worked since April, representing about half of the required/contracted canyon time. Much of the recent, T-Plant NLOP removal lost time noted in the DFR's is attributed to Operations Resource Support resource challenges associated with HPT's, NCO's, and at times Process Crane Operator.</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>Work with Operations to get appropriate ops support for the project effort</td> <td>5/2/16</td> <td>On-going</td> <td>NA</td> </tr> <tr> <td>Work with Operations to coordinate TSRs support for T-Plant work activities</td> <td>4/28/16</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>OT will be utilized as needed to address potential maintenance schedule delays due to imminent risks. (It is assumed that Operations will provide their share of OT support.)</td> <td>8/28/17</td> <td>On-going</td> <td>20</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b><br/>                     Additional operational resources have been hired at T-Plant to support the construction work. The T-Plant team will work with Ops to ensure appropriate work packages are in place to support T-Plant Subcontractors. The Construction team has hired an additional planner to support work package development, enhanced work planning, and Hazard Review Board presentations. FPE resources have not engaged to fully support North Loadout Pit (NLOP) equipment removal planning process. Resource challenges continue due to limited FPE resources and competing priorities causing delays in preparation for equipment removal. Mitigation actions are being put in place to reduce the probability of the risk occurrence and reduces the potential cost and schedule impact. Additionally, the risk will continue to be monitored. No additional mitigation actions have been identified at this time.</p> | Risk recovery action(s) | Risk Date | FC Date | % | Work with Operations to get appropriate ops support for the project effort | 5/2/16 | On-going | NA | Work with Operations to coordinate TSRs support for T-Plant work activities | 4/28/16 | Complete | 100 | OT will be utilized as needed to address potential maintenance schedule delays due to imminent risks. (It is assumed that Operations will provide their share of OT support.) | 8/28/17 | On-going | 20 |
| Risk recovery action(s)   | Risk Date   | FC Date    | %     |   |                         |           |         |   |  |        |          |    |   |         |          |     |   |         |          |    |
| Work with Operations to get appropriate ops support for the project effort  | 5/2/16  | On-going   | NA    |   |                         |           |         |   |  |        |          |    |   |         |          |     |   |         |          |    |
| Work with Operations to coordinate TSRs support for T-Plant work activities   | 4/28/16   | Complete   | 100   |   |                         |           |         |   |  |        |          |    |   |         |          |     |   |         |          |    |
| OT will be utilized as needed to address potential maintenance schedule delays due to imminent risks. (It is assumed that Operations will provide their share of OT support.) | 8/28/17   | On-going   | 20    |   |                         |           |         |   |  |        |          |    |   |         |          |     |   |         |          |    |

| Risk Title  | Unmitigated Risk Impacts  | Assessment  |   | Comments   |                         |           |         |   |  |          |          |     |   |         |          |     |  |         |          |     |                               |         |           |     |  |         |          |     |   |         |          |     |   |         |          |     |                             |         |           |     |   |         |          |     |  |         |           |     |
|---|---|---|---|--|-------------------------|-----------|---------|---|--|----------|----------|-----|---|---------|----------|-----|--|---------|----------|-----|-------------------------------|---------|-----------|-----|--|---------|----------|-----|---|---------|----------|-----|---|---------|----------|-----|-----------------------------|---------|-----------|-----|---|---------|----------|-----|--|---------|-----------|-----|
|   |   | Month   | Trend   |  |                         |           |         |   |  |          |          |     |   |         |          |     |  |         |          |     |                               |         |           |     |  |         |          |     |   |         |          |     |   |         |          |     |                             |         |           |     |   |         |          |     |  |         |           |     |
| <b>RL-0012/WBS-012</b>  |   |   |   |  |                         |           |         |   |  |          |          |     |   |         |          |     |  |         |          |     |                               |         |           |     |  |         |          |     |   |         |          |     |   |         |          |     |                             |         |           |     |   |         |          |     |  |         |           |     |
| <b>STP-111-B: Contractor/Subcontractor Performance - ECRTS Annex/In-Basin Equip. Installation</b> | <p>The General Conditions Contractor and their supporting subcontractors have historically performed poorly and will be challenged on this project by compliance with project and contract flow down requirements (e.g., quality, nuclear standards, site safety requirements, subcontract management to ensure contract requirements are met, NRTL compliance, suspect counterfeit, Buy-American contract clause, Project Controls requirements, development of Construction Acceptance Testing [CAT], timely processing of submittals compliance with all the subcontract flow down requirements) as well as deployment and maintenance of key staff that are essential to safe, cost effective and on-time project delivery.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Very Likely (&gt; 90%)<br/> <b>Worst Case Impacts:</b> \$792K, 96 days</p> |  |  | <p><b>Risk Event:</b><br/>                     The project continues to experience contractor delay due to inadequate general conditions staffing. There has been a delay in the receipt of Proposal for CA#3 (Release #10) as well as a delay in timely receipt of CO Proposals. A note regarding this issue was sent to the contractor on 06/01/2016 via CHPRC Contracts Department. On May 19, 2016, a stop work was called when an Annex Lightning protection ground wire was unearthed and damaged during excavation by the Subcontractor resulting in a 2-day delay.</p>   |                         |           |         |   |  |          |          |     |   |         |          |     |  |         |          |     |                               |         |           |     |  |         |          |     |   |         |          |     |   |         |          |     |                             |         |           |     |   |         |          |     |  |         |           |     |
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|   |   |   |   | Risk recovery action(s)  | Risk Date               | FC Date   | %       |   |  |          |          |     |   |         |          |     |  |         |          |     |                               |         |           |     |  |         |          |     |   |         |          |     |   |         |          |     |                             |         |           |     |   |         |          |     |  |         |           |     |
|   |   |   |   | Lightning Protection Ground wire, stop work was called and Critique was held   | 05/19/16                | Complete  | 100     |   |  |          |          |     |   |         |          |     |  |         |          |     |                               |         |           |     |  |         |          |     |   |         |          |     |   |         |          |     |                             |         |           |     |   |         |          |     |  |         |           |     |
|   |   |   |   | Contractor delays due to inadequate staffing/mobilization. Will work with contractor to stabilize work resource planning.  | 5/17/16                 | On-going  | N/A     |   |  |          |          |     |   |         |          |     |  |         |          |     |                               |         |           |     |  |         |          |     |   |         |          |     |   |         |          |     |                             |         |           |     |   |         |          |     |  |         |           |     |
|   |   |   |   | Establish weekly CHPRC and General Conditions Contractor interface meetings (e.g., Safety Meeting, Field Safety Walk-down, QA, POD/POW, Schedule and Performance Review) to track performance.   | 5/17/16                 | On-going  | N/A     |   |  |          |          |     |   |         |          |     |  |         |          |     |                               |         |           |     |  |         |          |     |   |         |          |     |   |         |          |     |                             |         |           |     |   |         |          |     |  |         |           |     |
|   |   |   |   | Implement extensive oversight  | 5/17/16                 | As needed | N/A     |   |  |          |          |     |   |         |          |     |  |         |          |     |                               |         |           |     |  |         |          |     |   |         |          |     |   |         |          |     |                             |         |           |     |   |         |          |     |  |         |           |     |
|   |   |   |   | Contractor pre-evaluation completed and shortlisted 3-potential bidders.   | 5/17/16                 | Complete  | 100     |   |  |          |          |     |   |         |          |     |  |         |          |     |                               |         |           |     |  |         |          |     |   |         |          |     |   |         |          |     |                             |         |           |     |   |         |          |     |  |         |           |     |
|   |   |   |   | Shortlisted bidders evaluated and placed on Site ESL.  | 5/17/16                 | Complete  | 100     |   |  |          |          |     |   |         |          |     |  |         |          |     |                               |         |           |     |  |         |          |     |   |         |          |     |   |         |          |     |                             |         |           |     |   |         |          |     |  |         |           |     |
|   |   |   |   | Acquisition planning document written to allow additional work to be added to successful bidder-if their performance is acceptable.  | 5/17/16                 | Complete  | 100     |   |  |          |          |     |   |         |          |     |  |         |          |     |                               |         |           |     |  |         |          |     |   |         |          |     |   |         |          |     |                             |         |           |     |   |         |          |     |  |         |           |     |
|   |   |   |   | Provide additional training  | 5/17/16                 | As needed | N/A     |   |  |          |          |     |   |         |          |     |  |         |          |     |                               |         |           |     |  |         |          |     |   |         |          |     |   |         |          |     |                             |         |           |     |   |         |          |     |  |         |           |     |
|   |   |   |   | Increased schedule duration for the project effort.  | 5/17/16                 | Complete  | 100     |   |  |          |          |     |   |         |          |     |  |         |          |     |                               |         |           |     |  |         |          |     |   |         |          |     |   |         |          |     |                             |         |           |     |   |         |          |     |  |         |           |     |
|   |   |   |   | Evaluate alternative / overlapping shifts.   | 5/17/16                 | As needed | N/A     |   |  |          |          |     |   |         |          |     |  |         |          |     |                               |         |           |     |  |         |          |     |   |         |          |     |   |         |          |     |                             |         |           |     |   |         |          |     |  |         |           |     |
|   |   |   |   | <p><b>Recovery Action Assessment:</b><br/>                     This is a reoccurring risks relating to the performance of the General Conditions Contractor and their supporting subcontractors. The CHPRC project team continues to work with their subcontractors to ensure the contractors are thoroughly aware of their project responsibilities and have the opportunity to successfully complete their project scope. Mitigation actions are in place that are expected to reduce the probability of the risk occurrence and reduce the potential cost and schedule impact, and the risk will continue to be monitored. No additional mitigation actions have been identified at this time.</p>  |                         |           |         |   |  |          |          |     |   |         |          |     |  |         |          |     |                               |         |           |     |  |         |          |     |   |         |          |     |   |         |          |     |                             |         |           |     |   |         |          |     |  |         |           |     |

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| <b>RL-0012/WBS-012</b>   |                          |            |       |   |                         |           |         |   |   |         |         |    |   |         |         |    |  |         |         |    |   |         |          |     |  |         |          |     |
| <b>STP-122-T: Interpretation of Site Requirements, Processes and Procedures - T Plant</b><br><br>Specific site requirements, processes, and procedures are flowed down as part of the binding subcontract agreement. Due to the sheer volume and magnitude of site requirements, processes and procedures, there is risk that gaps exist in the General Conditions Contractors understanding and ultimately compliance with all of the requirements. In addition, interpretation of Site requirements by CHPRC personnel are often times staff specific.<br><br><b>Risk Handling Strategy: Accept</b><br><br><b>Probability: Medium (26% to 74%)</b><br><b>Worst Case Impacts: \$416K, 16 days</b> |                          | ●          | ↓     | <b>Risk Event:</b><br>The project will incur additional costs as a result of EWP in which RadCon and IH requirement to build a mock-up that represents the field conditions in order to perform a dry run of how they will remove the potentially asbestos gaskets and get a Rad smear of the pipe internals. The project continues to incurred cost relating work delays associated with planning and preparation for the piping gasket removal requiring use of a glove bag and certified AHERA WP and Asbestos Supervisor per Safety/IH; these costs were not anticipated or planned. Additionally, new packaging and transportation requirements have emerged that has greatly extended the time frame to prepare the IP-2 internal securement plan.  |                         |           |         |   |   |         |         |    |   |         |         |    |  |         |         |    |   |         |          |     |  |         |          |     |
|  |                          |            |       | <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>Build a mock-up of the field conditions in order to perform a dry-run of asbestos abatement and Rad smear</td> <td>5/12/16</td> <td>7/31/16</td> <td>20</td> </tr> <tr> <td>Glove Bag for suspect asbestos pipe gasket. The Plastics Shop is fabricating a glove bag to contain any friable asbestos during pipe disconnect activities.</td> <td>5/12/16</td> <td>7/31/16</td> <td>90</td> </tr> <tr> <td>Prepare Work Package and perform physical work</td> <td>5/12/16</td> <td>7/31/16</td> <td>90</td> </tr> <tr> <td>The project is responding to the Chemical Compatibility review event resulting from the PFP J-Pan event. A Chemical Compatibility assessment is being prepared.</td> <td>4/12/16</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>The Project is responding to delays relating to support of the NLOP EWP.</td> <td>3/24/16</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Transportation requirements have emerged that greatly extended the time frame to prepare the IP-2 internal securement plan. The project is evaluating the impacts to determine the path forward.</td> <td>3/31/16</td> <td>7/31/16</td> <td>50</td> </tr> </tbody> </table> | Risk recovery action(s) | Risk Date | FC Date | % | Build a mock-up of the field conditions in order to perform a dry-run of asbestos abatement and Rad smear | 5/12/16 | 7/31/16 | 20 | Glove Bag for suspect asbestos pipe gasket. The Plastics Shop is fabricating a glove bag to contain any friable asbestos during pipe disconnect activities. | 5/12/16 | 7/31/16 | 90 | Prepare Work Package and perform physical work | 5/12/16 | 7/31/16 | 90 | The project is responding to the Chemical Compatibility review event resulting from the PFP J-Pan event. A Chemical Compatibility assessment is being prepared. | 4/12/16 | Complete | 100 | The Project is responding to delays relating to support of the NLOP EWP. | 3/24/16 | Complete | 100 |
| Risk recovery action(s)  | Risk Date                | FC Date    | %     |   |                         |           |         |   |   |         |         |    |   |         |         |    |  |         |         |    |   |         |          |     |  |         |          |     |
| Build a mock-up of the field conditions in order to perform a dry-run of asbestos abatement and Rad smear  | 5/12/16                  | 7/31/16    | 20    |   |                         |           |         |   |   |         |         |    |   |         |         |    |  |         |         |    |   |         |          |     |  |         |          |     |
| Glove Bag for suspect asbestos pipe gasket. The Plastics Shop is fabricating a glove bag to contain any friable asbestos during pipe disconnect activities.  | 5/12/16                  | 7/31/16    | 90    |   |                         |           |         |   |   |         |         |    |   |         |         |    |  |         |         |    |   |         |          |     |  |         |          |     |
| Prepare Work Package and perform physical work   | 5/12/16                  | 7/31/16    | 90    |   |                         |           |         |   |   |         |         |    |   |         |         |    |  |         |         |    |   |         |          |     |  |         |          |     |
| The project is responding to the Chemical Compatibility review event resulting from the PFP J-Pan event. A Chemical Compatibility assessment is being prepared.  | 4/12/16                  | Complete   | 100   |   |                         |           |         |   |   |         |         |    |   |         |         |    |  |         |         |    |   |         |          |     |  |         |          |     |
| The Project is responding to delays relating to support of the NLOP EWP.   | 3/24/16                  | Complete   | 100   |   |                         |           |         |   |   |         |         |    |   |         |         |    |  |         |         |    |   |         |          |     |  |         |          |     |
| Transportation requirements have emerged that greatly extended the time frame to prepare the IP-2 internal securement plan. The project is evaluating the impacts to determine the path forward.   | 3/31/16                  | 7/31/16    | 50    |   |                         |           |         |   |   |         |         |    |   |         |         |    |  |         |         |    |   |         |          |     |  |         |          |     |
| <b>Recovery Action Assessment:</b><br>The project team is working with safety management to reduce the impact to the project about the removal of the suspect asbestos gasket. The project team assumes 6-platic glove bags will be needed; the cost of the plastic glove bags and associated labor estimates are forthcoming. The project is still addressing the impacts associated with the path forward for the IP-2 securement plan. Mitigation actions are being put in place to reduce the probability of the risk occurrence. Additionally, the risk will continue to be monitored. No additional mitigation actions have been identified at this time.                                    |                          |            |       |   |                         |           |         |   |   |         |         |    |   |         |         |    |  |         |         |    |   |         |          |     |  |         |          |     |
| <b>STP-144:</b><br>Baseline strategy agreed to by RL and CHPRC on Transportation Safety documentation requirements for moving STSCs from the 105K West Basin to T-Plant storage is changed.<br><br>Revision to the Transportation Safety strategy (Site Requirements, Processes and Procedures) regarding shipment of STP STSCs from the 100K area Equip to T-Plant for interim storage operations.<br><b>Risk Handling Strategy: Control</b><br><br><b>Probability: Very Likely (&gt;90%)</b><br><b>Worst Case Impacts: \$2 million, 256 days</b>   |                          | ●          | ↓     | <b>Risk Event:</b><br>This risk has been realized. The new RL Transportation Safety Manager and the CHPRC Transportation Safety Manager have agreed to a Transportation Strategy that utilizes a One-Time Request for Shipment (OTRS).  |                         |           |         |   |   |         |         |    |   |         |         |    |  |         |         |    |   |         |          |     |  |         |          |     |
|  |                          |            |       | <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>Update schedule baseline to reflect agreed upon strategy moving forward.</td> <td>2/25/16</td> <td>6/31/16</td> <td>30</td> </tr> </tbody> </table>   | Risk recovery action(s) | Risk Date | FC Date | % | Update schedule baseline to reflect agreed upon strategy moving forward.                                  | 2/25/16 | 6/31/16 | 30 |   |         |         |    |  |         |         |    |   |         |          |     |  |         |          |     |
| Risk recovery action(s)  | Risk Date                | FC Date    | %     |   |                         |           |         |   |   |         |         |    |   |         |         |    |  |         |         |    |   |         |          |     |  |         |          |     |
| Update schedule baseline to reflect agreed upon strategy moving forward.   | 2/25/16                  | 6/31/16    | 30    |   |                         |           |         |   |   |         |         |    |   |         |         |    |  |         |         |    |   |         |          |     |  |         |          |     |
| <b>Recovery Action Assessment:</b><br>CHPRC is currently working to produce an undated schedule and cost profile to accommodate the new transportation strategy. Once the cost and schedule impact is established, the project will either seek a contract change or MR.   |                          |            |       |   |                         |           |         |   |   |         |         |    |   |         |         |    |  |         |         |    |   |         |          |     |  |         |          |     |

| Risk Title   | Unmitigated Risk Impacts   | Assessment |       | Comments   |                         |           |         |  |   |         |  |     |  |  |          |   |   |         |         |  |           |     |   |           |     |
|--|--|------------|-------|--|-------------------------|-----------|---------|--|---|---------|--|-----|--|--|----------|---|---|---------|---------|--|-----------|-----|---|-----------|-----|
|  |  | Month      | Trend |  |                         |           |         |  |   |         |  |     |  |  |          |   |   |         |         |  |           |     |   |           |     |
| <b>RL-0012/WBS-012</b>   |  |            |       |  |                         |           |         |  |   |         |  |     |  |  |          |   |   |         |         |  |           |     |   |           |     |
| STP-103-M: MASF Pre-Operational Acceptance Testing (MPAT)  | <p>The ECRTS equipment does not operate as expected, requiring increased engineering &amp; MASF Testing Staff Support. This will require design modifications of production hardware and changes to control system software. These modifications will negatively impacts downstream testing, construction, readiness and ECRTS Operations.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Low (10% to 25%)<br/><b>Worst Case Impacts:</b> \$500K, 60 days</p>  | ●          | ↓     | <p><b>Risk Event:</b><br/>This risk has been realized. During the month of May, the second Transfer System Instrument Spool failed.</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>Coordinate with Krohne Instrument Manufacturer on Instrument Spool Failure Causal Analysis and subsequent implementation of corrective actions.</td> <td>5/31/16</td> <td>6/30/16</td> <td>10</td> </tr> <tr> <td>Procure 4 Operationally sound Transfer System Instrument Loops after corrective actions are fully implemented.</td> <td>5/31/16</td> <td>7/31/16</td> <td>0</td> </tr> <tr> <td>Ensure all project technical personnel are available to mitigate emergent technical challenges and establish proactive solutions.</td> <td>5/31/16</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b><br/>Although the initial Transfer System Instrument Spool failure was considered “infant mortality”, this second failure indicates that a systemic flaw likely exists in the assembly and the instrument manufacturer has been contacted to determine cause of failure and corrective action. A “test article” Transfer System Instrument Spool and a “spare” production Transfer System Instrument Spool are now installed and are allowing the MPAT Test to proceed. While only two days have been lost to project critical path, the project is awaiting feedback from Krohne (the company that manufactured the failed instrument) and will determine corrective action during the month of June.<br/>While there are now over 100 Test Deficiency Reports many associated with equipment operating anomalies and a number of design changes to existing configuration, the technical staff has been successful to date in addressing the balance of the challenges without impacting MPAT test duration or cost. The mitigation strategies were put in place, but a recovery action has been added to aggressively pursue instrument failure analysis and corrective action implementation. As a result, the risk strategy has been changed to control.</p> | Risk recovery action(s) | Risk Date | FC Date | %  | Coordinate with Krohne Instrument Manufacturer on Instrument Spool Failure Causal Analysis and subsequent implementation of corrective actions. | 5/31/16 | 6/30/16  | 10  | Procure 4 Operationally sound Transfer System Instrument Loops after corrective actions are fully implemented. | 5/31/16  | 7/31/16  | 0 | Ensure all project technical personnel are available to mitigate emergent technical challenges and establish proactive solutions. | 5/31/16 | Ongoing | N/A  |           |     |   |           |     |
| Risk recovery action(s)  | Risk Date  | FC Date    | %     |  |                         |           |         |  |   |         |  |     |  |  |          |   |   |         |         |  |           |     |   |           |     |
| Coordinate with Krohne Instrument Manufacturer on Instrument Spool Failure Causal Analysis and subsequent implementation of corrective actions.                        | 5/31/16  | 6/30/16    | 10    |  |                         |           |         |  |   |         |  |     |  |  |          |   |   |         |         |  |           |     |   |           |     |
| Procure 4 Operationally sound Transfer System Instrument Loops after corrective actions are fully implemented.   | 5/31/16  | 7/31/16    | 0     |  |                         |           |         |  |   |         |  |     |  |  |          |   |   |         |         |  |           |     |   |           |     |
| Ensure all project technical personnel are available to mitigate emergent technical challenges and establish proactive solutions.                                      | 5/31/16  | 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 May.  |  |            |       |  |                         |           |         |  |   |         |  |     |  |  |          |   |   |         |         |  |           |     |   |           |     |
| <b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)  |  |            |       |  |                         |           |         |  |   |         |  |     |  |  |          |   |   |         |         |  |           |     |   |           |     |
| <b>FY2017 Risk Triggers</b> (Risk could be realized in FY2016)   |  |            |       |  |                         |           |         |  |   |         |  |     |  |  |          |   |   |         |         |  |           |     |   |           |     |
| STP-103: K Basin Pre-Operational Acceptance Testing (KPAT) & ECRTS Startup   | <p>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.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Medium (26% to 74%)<br/><b>Worst Case Impacts:</b> \$4.5 million, 90 days</p> | ●          | ↔     | <p><b>Risk Trigger:</b><br/>1) The ECRTS equipment does not operate as expected. 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>Conduct Full-scale testing of production hardware at MASF prior to installation at K-Basin to avoid costly replacement of malfunctioning equipment during Hot Startup.</td> <td>7/31/16</td> <td>0</td> </tr> <tr> <td>Develop and refine procedures based upon feedback from testing and operations personnel.</td> <td>TBD</td> <td>0</td> </tr> <tr> <td>Any Challenges identified at MASF will be resolved prior to completion of cold commissioning. (forecast for July 2016)</td> <td>On-going</td> <td>0</td> </tr> <tr> <td>Develop streamline strategy (work packages and procedures) to perform in-basin/annex integrated testing and troubleshooting.</td> <td>9/30/16</td> <td>0</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/>Forecasted mitigation dates are consistent with overall STP critical path schedule.</p>  | Mitigation action(s)    | FC Date   | %       | Conduct Full-scale testing of production hardware at MASF prior to installation at K-Basin to avoid costly replacement of malfunctioning equipment during Hot Startup. | 7/31/16   | 0       | Develop and refine procedures based upon feedback from testing and operations personnel. | TBD | 0  | Any Challenges identified at MASF will be resolved prior to completion of cold commissioning. (forecast for July 2016) | On-going | 0 | Develop streamline strategy (work packages and procedures) to perform in-basin/annex integrated testing and troubleshooting.      | 9/30/16 | 0       | 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  | %          |       |  |                         |           |         |  |   |         |  |     |  |  |          |   |   |         |         |  |           |     |   |           |     |
| Conduct Full-scale testing of production hardware at MASF prior to installation at K-Basin to avoid costly replacement of malfunctioning equipment during Hot Startup. | 7/31/16  | 0          |       |  |                         |           |         |  |   |         |  |     |  |  |          |   |   |         |         |  |           |     |   |           |     |
| Develop and refine procedures based upon feedback from testing and operations personnel.   | TBD  | 0          |       |  |                         |           |         |  |   |         |  |     |  |  |          |   |   |         |         |  |           |     |   |           |     |
| Any Challenges identified at MASF will be resolved prior to completion of cold commissioning. (forecast for July 2016)   | On-going   | 0          |       |  |                         |           |         |  |   |         |  |     |  |  |          |   |   |         |         |  |           |     |   |           |     |
| Develop streamline strategy (work packages and procedures) to perform in-basin/annex integrated testing and troubleshooting.   | 9/30/16  | 0          |       |  |                         |           |         |  |   |         |  |     |  |  |          |   |   |         |         |  |           |     |   |           |     |
| 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>FY2018 Risk Triggers</b> (Risk could be realized in FY2018)   |  |            |       |  |                         |           |         |  |   |         |  |     |  |  |          |   |   |         |         |  |           |     |   |           |     |

| Risk Title   | Unmitigated Risk Impacts  | Assessment |       | Comments  |                      |         |   |  |          |     |  |         |     |
|--|---|------------|-------|---|----------------------|---------|---|--|----------|-----|--|---------|-----|
|  |   | Month      | Trend |   |                      |         |   |  |          |     |  |         |     |
| <b>RL-0012/WBS-012</b>   |   |            |       |   |                      |         |   |  |          |     |  |         |     |
| 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 changes in the month of <b>May</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 changes in the month of <b>May</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        |       |   |                      |         |   |  |          |     |  |         |     |
| <b>Unassigned Risks (Pending ownership of identified threats/opportunities)</b>  |   |            |       |   |                      |         |   |  |          |     |  |         |     |
| CHPRC proposed five risks 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 is evaluating the impacts to the overall risk analysis. |   |            |       |   |                      |         |   |  |          |     |  |         |     |

## 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   | 24.8                                     | 26.2                                     | 5.6                                    | 1.4                          | 5.6%                        | 20.7                     | 78.8%                   |

Numbers are rounded to the nearest \$0.1 million

### CM Schedule Performance (+\$1.4M/+5.6%)

The current month favorable schedule variance is due to the transitioning of the Sludge Retrieval Project to a DOE 413.3 Line Item Capital Asset project, BCR-012C-018R0 was processed in May to re-align all scope and costs prior to implementation of the Capital Asset project on October 1, 2015. Per RL direction, Correspondence No. 1602263 received May 12, 2016, directing CHPRC to develop and submit a Sludge Retrieval Capital Asset baseline aligning BCWS with actual costs as of September 30, 2015, i.e., BCWS was adjusted to equal total actual costs at each WBS element as of September 30, 2015. This

established a formal baseline for Sludge Retrieval Project for the date of October 1, 2015 based on approval of CD 1/2/3. All actuals up to and including September 30, 2015 were captured as historical information. Because history cannot be changed in the baseline, a point adjustment was made this month causing the current month variance.

### CM Cost Performance (+\$20.7M/+78.8%)

The current month favorable cost variance is due to the transitioning of the Sludge Retrieval Project to a DOE 413.3 Line Item Capital Asset project, BCR-012C-018R0 was processed in May to re-align all scope and costs prior to implementation of the Capital Asset project on October 1, 2015. Per RL direction, Correspondence No. 1602263 received May 12, 2016, directing CHPRC to develop and submit a Sludge Retrieval Capital Asset baseline aligning BCWS with actual costs as of September 30, 2015, i.e., BCWS was adjusted to equal total actual costs at each WBS element as of September 30, 2015. This established a formal baseline for Sludge Retrieval Project for the date of October 1, 2015 based on approval of CD 1/2/3. All actuals up to and including 09/30/15 were captured as historical information. Because history cannot be changed in the baseline, a point adjustment was made this month causing the current month variance.

## 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>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   | 591.9                                    | 595.0                                    | 573.6                                  | 3.0                          | 0.5%                        | 21.4                     | 3.6%                    | 741.6                            | 717.5                              | 24.1                               |

Numbers are rounded to the nearest \$0.1 million

### CTD Schedule Performance (+\$3.0M/+0.5%)

The variance is within reporting thresholds.

### CTD Cost Performance (+\$21.4M/+3.6%)

The variance is within reporting thresholds.

### Variance at Completion (+\$24.1M/+3.2%)

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 | FY2016               |                      |                   |
|--|----------------------|----------------------|-------------------|
|  | Projected<br>Funding | Spending<br>Forecast | Spend<br>Variance |
| Expense - Spending Forecast                                    | 53.0                 | 45.8                 | 7.2               |
| Incremental Scope Pending<br>Change Management                 | 0.0                  | 0.2                  | (0.2)             |
| Expense - Subtotal   | 53.0                 | 46.0                 | 7.0               |
| Line Item  | 68.1                 | 34.5                 | 33.6              |
| Incremental Scope Pending<br>Change Management                 | 0.0                  | 0.2                  | (0.2)             |
| LI -Subtotal   | 68.1                 | 34.7                 | 33.4              |
| <b>RL-0012 – Total</b>   | <b>121.1</b>         | <b>81.0</b>          | <b>40.0</b>       |

Numbers are rounded to the nearest \$0.1 million.

### Funds/Variance Analysis

FY2016 projected funding for RL-0012 is \$121.1 million. The Line Item funding for the STP CAP project has been assigned for FY2016 and FY2017 work scope, thus causing a positive variance in FY2016.

### Critical Path Schedule

The critical path flows through performance of the MPAT at MASF, installation of process equipment at 100K Basin, Pre-operational acceptance testing of the facility modifications and annex process equipment, readiness activities, and finally, containerized sludge retrieval operations. Retrieval operations include the filling of STSCs with sludge and transferring them to T Plant, completing Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) milestone M-016-176, *Complete Sludge Removal from 105-KW Fuels Storage Basin* (milestone is outside contract period in FY2019).

### Baseline Change Requests

BCR-012C-16-018R0, *Establish SRP Project Baseline for Project Reporting*

BCR-012C-16-019R0, *SRP CAP Management Reserve Draw for NE Corner Construction and Annex Facility Maintenance*

BCRA-012C-16-022R0, *Correct D-401 SRP Baseline BCR Implementation Error*

## MILESTONE STATUS

Hanford Federal Facility Agreement and Consent Order (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 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 |             | 8/27/2018     | The forecast date includes schedule margin from the Project's risk analysis. |
| M-016-177 | Complete installation of sludge transfer equipment in K West Reactor facilities | 9/30/2017 |             | 4/26/2017     | The forecast date does not include schedule margin.                          |

## SELF-PERFORMED WORK

The Section H.20 clause, entitled "Self-Performed Work," is addressed in the Overview.

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

None currently identified.

# Section C

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



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

May 2016  
CHPRC-2016-05, Rev. 1  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

W&FMP maintained facilities in a safe and compliant condition. Overall, the project is delivering planned efficiencies, but continues to be impacted by emerging work and realized risks. The WESF Stabilization and Ventilation Project (W-130) completed initial entry into A Cell airlock to perform limited characterization surveys to take photos for work planning purposes. This was the first entry into the A cell airlock since ~1999. W-130 also completed fabrication of the ATP test box, welding of condensate and vent drain lines and weld inspections. The ERDF Transfer Pipeline construction inside 200 West P&T, Pump House, and new high-density polyethylene (HDPE) line has been completed; as well as the 200 West P&T startup procedures.

## EMS Objectives and Target Status

| Objective #       | Objective   | Target   | Due Date | Status |
|-------------------|---|--|----------|--------|
| 16-EMS-WFM-OB1-T1 | Improve container labeling.                                       | Reconcile data between SWITS and the Operating Record for 750 containers at CWC, and update container labeling for those containers (if needed). | 9/30/16  | 100%   |
| 16-EMS-WFM-OB1-T2 | Improve consistency in RCRA inspections between WFM facilities.   | Establish consistent format, language, approvals, and corrective action tracking standards for WFM RCRA inspections.                             | 9/30/16  | 80%    |
| 16-EMS-WFM-OB1-T3 | Improve consistency in recordkeeping for RCRA inspections at CWC. | Evaluate and issue procedure for an automated RCRA Checklist and inspection system for CWC.  | 9/30/16  | 38%    |

## TARGET ZERO PERFORMANCE

|                                      | CM Quantity | Rolling 12 Month | Comment   |
|--------------------------------------|-------------|------------------|---|
| Days Away, Restricted or Transferred | 0           | 0                | N/A   |
| Total Recordable Injuries            | 0           | 2*               | N/A<br>*1 Recordable case, PTS in support of RL-0013. |
| First Aid Cases                      | 0           | 21*              | *8 First Aid Cases, PTS in support of RL-0013.        |
| Near Misses                          | 0           | 1                | N/A   |

## KEY ACCOMPLISHMENTS

### 13.01 Project Management

- o Received Ecology's completeness determination for the Part B Permit Application Document.

### 13.02 Capsule Storage & Disposition

- o Performed/Completed:
  - 45 Preventive Maintenance (PM) work packages.

#### a. Capsule Extended Storage Project:

- Extended proposal due date from May 23, 2016 to May 31, 2016 to provide the bidders with the necessary time to receive bids from their subcontractors.

#### b. WESF Stabilization and Ventilation Project (W-130):

- o Performed/Completed:
  - Fabrication of the ATP test box.
  - Welding of condensate and vent drain lines and weld inspections.
  - Initial entry into A Cell airlock to perform limited characterization surveys and take photos for work planning purposes. This was the first entry into the A Cell airlock since ~1999.
  - Installation of electrical conduit for power feeds to heater and skid and pulled wire to fans.

### 13.03 Canister Storage Building (CSB)

- o Performed/Completed:
  - Multi-Canister Overpack (MCO) H-176 sampling.
  - Performed tour of the CSB with security personnel.
  - 20 PM packages.

### 13.06 TRU Repackaging

- o Transuranic mixed (TRUM) waste completed and returned fiscal year to date – 355 m3.
- o M-91 Alternative Study:
  - Focused on the identification and description of the waste containers that require a new capability.
- o Shipments Received:
  - 30 waste drums and 11 waste boxes from PFNW into Central Waste Complex (CWC) in four shipments.
- o Shipments:
  - One waste box and waste drum from CWC to PFNW.

### 13.07 WRAP

- o Surveillances/PMs:
  - 106 Surveillances.
  - 11 PM packages.

### 13.08 T Plant

- o North Loadout Pit (NLOP) Equipment Removal-Buffer Tank disassembly and Drum Loading Enclosure size reduction completed.
- o Surveillances/PMs:
  - 484 Surveillances.
  - 30 PM packages.

### 13.09 CWC and Low Level Burial Grounds (LLBG)

- o Performed/Completed:
  - Floor repairs in CWC 2402-WB and 2402-WJ.
  - Lighting installation in 2403-WC (84/84 lights).
  - Initiated box cover campaign in Outside Storage Area A. Three new box covers were installed over existing damaged covers on April 28, 2016.
- o Surveillances/PMs:
  - 29 PM packages.
  - 291 Surveillances.

- o Shipments Received:
  - 20 waste drums and 7 waste boxes from PFP into CWC in three shipments.
- 13.11 Liquid Effluent Facilities**
- o ERDF Transfer Pipeline Construction:
  - Performed/Completed:
    - Construction of work inside 200 West P&T, Pump House, and new HDPE line installation.
    - 200 West P&T startup procedures.
- 13.12 Integrated Disposal Facility**
- o Completed monthly inspections.
- 13.14 Solid Waste Base Operations**
- o Environmental Enhancement:
  - Automated Resource Conservation and Recovery Act of 1976 (RCRA) Inspection sheets at CWC:
    - Continue software configuration.
- 13.16 Off Site Spent Nuclear Fuel Disposition**
- o Maintained coordination for offsite Spent Nuclear Fuel Disposition.
- 13.21 Mixed Waste Disposal Trenches (MWT)**
- o Shipments Received:
  - Navy Reactor (PSNS-068-2 Coolant Pump into MWT-34).
- o Completed:
  - 144 Surveillances.

## MAJOR ISSUES

### Issue:

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

### Corrective Action:

Significant risk remains. TRU Disposition activities would prepare the contents of these containers in a configuration suitable for eventual disposal at the Waste Isolation Pilot Plant (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 and over packing drums).

### Issue:

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

### Corrective Action:

RL and WDOH were notified of the situation. Options to rectify the situation were evaluated. WDOH prefers an engineering evaluation by PNNL to justify use of flow rates less than 9,000 CFM, which the facility has predominately maintained since start up. This will also provide defensibility for past emission data. Engineering provided information to PNNL to support this evaluation. Following successful completion of the engineering evaluation, CHPRC/RL will submit a Notice of Construction (NOC) revision to modify the license to reflect the wider range of stack flow rates.

**Status:**

RL provided direction to proceed with the PNNL statistical analysis of the CSB stack flow data as well as data from other similar stacks. A contract was awarded to PNNL on July 29, 2015. The first deliverable was received September 28, 2015; the preliminary review is complete. PNNL supplied preliminary information providing a basis for an expanded flow range. A meeting with RL and WDOH was held October 8, 2015 to present the first deliverable from PNNL. Following the meeting, PNNL cleared the presentation for release, and the cleared copies were provided to WDOH on October 22, 2015. WDOH provided positive feedback on the PNNL presentation; but wants one of six original tests to be re-performed but at lower flow rates to validate the PNNL statistical analysis, which used test results from similar stacks for comparison. RL contractual approval was provided April 19, 2016 for the planning and conduct of the flow testing desired by WDOH. Fuels Facility Work Control is in the process of developing a work package for the additional field testing, with support from Engineering and Environmental Management.

**Issue:**

WESF MSA Cross-Connection Control Program recently 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.
- B. Approved Reduced-Pressure Back-flow Prevention Assembly (RPBA) or RPDA installed for premises isolation in combination with an in plant approved air gap.
- C. Approved Hanford Site water sources modification with downstream controls at facilities.

**Corrective Action:**

The WAC requires corrective action be accomplished "Within 90 days of the purveyor notifying the consumer ... "or, "In accordance with an alternate schedule acceptable to the purveyor." MSA intends to work with the affected facilities and RL to develop corrective actions that minimize impacts to ongoing clean-up milestones.

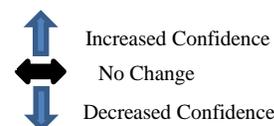
**Status:**

Central Environmental has prepared and submitted a pre-existing condition notification to RL. A meeting was held on Thursday, April 28 with the MSA Water Purveyor to initiate discussions on a path forward. Additionally, at the request of RL, 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 reduced pressure backflow assembly are required to meet the elevated hazard. Seven locations within the facility would require modification. RL is weighing the costs and benefits of remedying with a modification at the source by MSA versus modifications at each facility.

## RISK MANAGEMENT STATUS

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

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



| Risk Title  | Unmitigated Risk Impacts   | Assessment  |   | Comments  |                         |           |         |   |   |          |          |     |  |          |     |                                   |            |   |  |  |          |     |
|---|--|---|---|---|-------------------------|-----------|---------|---|---|----------|----------|-----|--|----------|-----|-----------------------------------|------------|---|--|--|----------|-----|
|   |  | Month   | Trend   |   |                         |           |         |   |   |          |          |     |  |          |     |                                   |            |   |  |  |          |     |
| <b>RL-0013/WBS-013</b>  |  |   |   |   |                         |           |         |   |   |          |          |     |  |          |     |                                   |            |   |  |  |          |     |
| <b>Explanation of major changes to the project monthly spotlight chart:</b><br>No major changes to the monthly spotlight chart in the month of <b>May</b> . |  |   |   |   |                         |           |         |   |   |          |          |     |  |          |     |                                   |            |   |  |  |          |     |
| <b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)  |  |   |   |   |                         |           |         |   |   |          |          |     |  |          |     |                                   |            |   |  |  |          |     |
| 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  |    |    | <p><b>Risk Event:</b><br/>In November 2011, degraded containers were discovered in CWC.</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>Perform daily/weekly waste container surveillances to identify container abnormalities.</td> <td rowspan="3" style="text-align: center;">11/01/11</td> <td style="text-align: center;">On-Going</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>Manage a "watch-list" of waste containers that have shown signs of degradation or are associated with degraded containers.</td> <td style="text-align: center;">On-Going</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>Overpack degraded waste packages.</td> <td style="text-align: center;">09/30/2016</td> <td style="text-align: center;">0</td> </tr> <tr> <td>Process waste packages at a rate funded by RL.</td> <td></td> <td style="text-align: center;">On-Going</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b><br/>Project continued to perform container surveillances in the month of <b>May</b> to identify container and container cover abnormalities. Overpack of 25 drum waste packages are scheduled to begin July 5, 2016 and complete prior to September 30, 2016. <b>In addition, during the month of May, RL authorized the overpack of an additional 50 drums in FY2016.</b> The project will perform the overpack for Storage box 75DMA16F3, with a subsequent move into 2403WD, once resources become available. A letter is being drafted to request contract direction from RL regarding the definition of a satisfactory container when corrosion is evident. At this time it is undetermined on the timeframe to reach a conclusion.</p> | Risk recovery action(s) | Risk Date | FC Date | % | Perform daily/weekly waste container surveillances to identify container abnormalities.             | 11/01/11 | On-Going | N/A | Manage a "watch-list" of waste containers that have shown signs of degradation or are associated with degraded containers. | On-Going | N/A | Overpack degraded waste packages. | 09/30/2016 | 0 | Process waste packages at a rate funded by RL. |  | On-Going | N/A |
| Risk recovery action(s)   | Risk Date  | FC Date   | %   |   |                         |           |         |   |   |          |          |     |  |          |     |                                   |            |   |  |  |          |     |
| Perform daily/weekly waste container surveillances to identify container abnormalities.   | 11/01/11   | On-Going  | N/A   |   |                         |           |         |   |   |          |          |     |  |          |     |                                   |            |   |  |  |          |     |
| Manage a "watch-list" of waste containers that have shown signs of degradation or are associated with degraded containers.                                  |  | On-Going  | N/A   |   |                         |           |         |   |   |          |          |     |  |          |     |                                   |            |   |  |  |          |     |
| Overpack degraded waste packages.   |  | 09/30/2016  | 0   |   |                         |           |         |   |   |          |          |     |  |          |     |                                   |            |   |  |  |          |     |
| Process waste packages at a rate funded by RL.  |  | On-Going  | N/A   |   |                         |           |         |   |   |          |          |     |  |          |     |                                   |            |   |  |  |          |     |
| WSD-W130-07: WESF W-130 Class 3 Permit modifications – Ecology  | Significant comments or rejection from Ecology on the Class 3 permit modification and closure plan are issued, resulting in cost impacts and schedule delays.<br><br><b>Risk Handling Strategy:</b> Control<br><br><b>Probability:</b> Likely (75% to 90%)<br><b>Worst Case Impacts:</b> \$0, 144 days<br><br>*Cost increase will result in cost per day impacts from crews, and hotel load. |  |  | <p><b>Risk Event:</b><br/>Risk was realized upon receipt of letter of incompleteness from Ecology on closure plan and Class III permit modifications.</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>Obtain second TA from Ecology to allow grouting activities to proceed without full permit approval.</td> <td style="text-align: center;">5/23/16</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b><br/>Second Temporary Authorization to authorize grouting was received from Ecology on June 2, 2016. There is still a risk that the full permit (expected to be issued and implemented in August 2016) will be different than expected and cause a change to field execution or final end product since the permit will be issued after stabilization activities have begun. Additional resources will continue to be necessary to work permitting issues until final permit is issued and implemented. Additional cost for labor resources is incorporated into CP269 R2 through April 2016. It is anticipated that the plan will be incorporated into the baseline in July, as definitization of the change proposal is expected in mid-June. No additional alternative course of actions needed at this time.</p>  | Risk recovery action(s) | Risk Date | FC Date | % | Obtain second TA from Ecology to allow grouting activities to proceed without full permit approval. | 5/23/16  | Complete | 100 |  |          |     |                                   |            |   |  |  |          |     |
| Risk recovery action(s)   | Risk Date  | FC Date   | %   |   |                         |           |         |   |   |          |          |     |  |          |     |                                   |            |   |  |  |          |     |
| Obtain second TA from Ecology to allow grouting activities to proceed without full permit approval.   | 5/23/16  | Complete  | 100   |   |                         |           |         |   |   |          |          |     |  |          |     |                                   |            |   |  |  |          |     |

| Risk Title  | Unmitigated Risk Impacts   | Assessment |       | Comments   |                         |           |         |   |  |         |         |    |                                 |          |     |  |         |    |   |         |   |  |         |   |
|---|--|------------|-------|--|-------------------------|-----------|---------|---|--|---------|---------|----|---------------------------------|----------|-----|--|---------|----|---|---------|---|--|---------|---|
|   |  | Month      | Trend |  |                         |           |         |   |  |         |         |    |                                 |          |     |  |         |    |   |         |   |  |         |   |
| <b>RL-0013/WBS-013</b>  |  |            |       |  |                         |           |         |   |  |         |         |    |                                 |          |     |  |         |    |   |         |   |  |         |   |
| WSD-W130-17:<br>Changes in the final design are needed after the design is issued   | <p>Changes in the final design are needed after the design is issued. Changes are driven by unexpected conditions, additional reviews of the design media, or field conditions. Design changes result in cost impacts and schedule delays.</p> <p><b>Risk Handling Strategy:</b> Control</p> <p><b>Probability:</b> Medium (26% to 74%)</p> <p><b>Worst Case Impacts:</b> \$550K, 112 days</p> | ●          | ↔     | <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. Four separate issues have led to the realization of this risk:</p> <ol style="list-style-type: none"> <li>1) 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>2) K3N skid requires modifications to ensure proper operation at WESF.</li> <li>3) Hot cell penetration sealing requires more work than planned.</li> <li>4) Communication between hot pipe trench in WESF and B Plant causes grout to flow into B Plant during trench grouting.</li> </ol> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">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>Complete fabrication and installation of new fire suppression system</td> <td rowspan="5" style="text-align: center; vertical-align: middle;">2/01/16</td> <td style="text-align: center;">6/16/16</td> <td style="text-align: center;">50</td> </tr> <tr> <td>Complete K3N skid modifications</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> <tr> <td>Perform electrical investigations in service gallery</td> <td style="text-align: center;">7/11/16</td> <td style="text-align: center;">96</td> </tr> <tr> <td>Perform hot pipe trench investigative core drilling</td> <td style="text-align: center;">6/30/16</td> <td style="text-align: center;">0</td> </tr> <tr> <td>Install spool piece in place of dampers to allow testing to progress</td> <td style="text-align: center;">5/27/16</td> <td style="text-align: center;">0</td> </tr> </tbody> </table> <p><b>Recovery Action Assessment:</b><br/>The design and modifications to the K3N skid have been completed. Work to perform electrical investigations in the service gallery <b>have completed</b>, however four additional electrical penetrations into the hot cells were identified in the A Cell airlock after a recent entry was made. A work package to perform a small one inch core into the hot pipe trench is <b>ready for Hazard Review Board review</b>. The work package will allow insertion of a borescope and temperature probe to determine if open communication exists between the two facilities. Results of investigation core drilling will be used to plan appropriate risk mitigations to prevent grout intrusion into B Plant.</p> | Risk recovery action(s) | Risk Date | FC Date | % | Complete fabrication and installation of new fire suppression system | 2/01/16 | 6/16/16 | 50 | Complete K3N skid modifications | Complete | 100 | Perform electrical investigations in service gallery | 7/11/16 | 96 | Perform hot pipe trench investigative core drilling | 6/30/16 | 0 | Install spool piece in place of dampers to allow testing to progress | 5/27/16 | 0 |
| Risk recovery action(s)   | Risk Date  | FC Date    | %     |  |                         |           |         |   |  |         |         |    |                                 |          |     |  |         |    |   |         |   |  |         |   |
| Complete fabrication and installation of new fire suppression system  | 2/01/16  | 6/16/16    | 50    |  |                         |           |         |   |  |         |         |    |                                 |          |     |  |         |    |   |         |   |  |         |   |
| Complete K3N skid modifications   |  | Complete   | 100   |  |                         |           |         |   |  |         |         |    |                                 |          |     |  |         |    |   |         |   |  |         |   |
| Perform electrical investigations in service gallery  |  | 7/11/16    | 96    |  |                         |           |         |   |  |         |         |    |                                 |          |     |  |         |    |   |         |   |  |         |   |
| Perform hot pipe trench investigative core drilling   |  | 6/30/16    | 0     |  |                         |           |         |   |  |         |         |    |                                 |          |     |  |         |    |   |         |   |  |         |   |
| Install spool piece in place of dampers to allow testing to progress  |  | 5/27/16    | 0     |  |                         |           |         |   |  |         |         |    |                                 |          |     |  |         |    |   |         |   |  |         |   |
| <b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed) |  |            |       |  |                         |           |         |   |  |         |         |    |                                 |          |     |  |         |    |   |         |   |  |         |   |
| <b>Lifecycle Risk Triggers</b> (Risk could be realized at any point of the project)   |  |            |       |  |                         |           |         |   |  |         |         |    |                                 |          |     |  |         |    |   |         |   |  |         |   |

| Risk Title  | Unmitigated Risk Impacts  | Assessment  |       | Comments  |                      |         |   |   |          |     |   |          |
|---|---|---|-------|---|----------------------|---------|---|---|----------|-----|---|----------|
|   |   | Month   | Trend |   |                      |         |   |   |          |     |   |          |
| <b>RL-0013/WBS-013</b>  |   |   |       |   |                      |         |   |   |          |     |   |          |
| WSD-019: MLLW & TRU Treatment Impacts   | MLLW & 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:</b> Accept<br><br><b>Probability:</b> Very Low (<10%)<br><b>Worst Case Impacts:</b> \$10 million, 0 day |   |       | <b>Risk Trigger Metric:</b> Will continue throughout contract (September 30, 2018).   |                      |         |   |   |          |     |   |          |
|   |   |   |       | <table border="1"> <thead> <tr> <th>Mitigation action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Established multiple treatment contracts for the processing of MLLW and TRU with terms extending to the end of the current CHPRC contract with RL (i.e., September 30, 2018).</td> <td>On-Going</td> <td>N/A</td> </tr> <tr> <td>Continue to work with RL to fund the processing of TRU waste at PFNW at a rate in which keeps them viable (i.e., keeps the doors open).</td> <td>On-Going</td> <td>N/A</td> </tr> <tr> <td>Work with RL and PFNW to increase the quantity of NRC defined special nuclear material (SNM) in PFNW's Mixed Waste Facility (MWF). Their current limit is 200 grams of total Pu. The limit needs to be increased between 400 – 1,000 grams to allow for larger TRUM waste quantities to be received and processed at their MWF.</td> <td>On-Going</td> <td>N/A</td> </tr> </tbody> </table> | Mitigation action(s) | FC Date | % | Established multiple treatment contracts for the processing of MLLW and TRU with terms extending to the end of the current CHPRC contract with RL (i.e., September 30, 2018). | On-Going | N/A | Continue to work with RL to fund the processing of TRU waste at PFNW at a rate in which keeps them viable (i.e., keeps the doors open). | On-Going |
| Mitigation action(s)  | FC Date   | %   |       |   |                      |         |   |   |          |     |   |          |
| Established multiple treatment contracts for the processing of MLLW and TRU with terms extending to the end of the current CHPRC contract with RL (i.e., September 30, 2018).   | On-Going  | N/A   |       |   |                      |         |   |   |          |     |   |          |
| Continue to work with RL to fund the processing of TRU waste at PFNW at a rate in which keeps them viable (i.e., keeps the doors open).   | On-Going  | N/A   |       |   |                      |         |   |   |          |     |   |          |
| Work with RL and PFNW to increase the quantity of NRC defined special nuclear material (SNM) in PFNW's Mixed Waste Facility (MWF). Their current limit is 200 grams of total Pu. The limit needs to be increased between 400 – 1,000 grams to allow for larger TRUM waste quantities to be received and processed at their MWF.   | On-Going  | N/A   |       |   |                      |         |   |   |          |     |   |          |
| <b>Mitigation Assessment:</b><br>1) Two contracts are in place with offsite commercial waste treatment which provide sufficient capability/capacity to meet current MLLW demand through the end of the CHPRC contract term. Only PFNW is provided with current capability to process TRU/M waste. This is due solely on the practical limitations imposed by the need to ship the TRU/M waste via road-closure; therefore, additional commercial providers cannot be obtained.<br>2) With the exception of the two gloveboxes shipped to PFNW during the 1st week of June, 2016, no additional TRU/M waste is identified to be shipped to PFNW for the remainder of FY2016. PFP's D&D schedule shows that the majority of the oversized TRU waste components destined for PFNW will not be generated until FY2017, and no additional Legacy TRUM waste packages are currently funded for FY2016. The lack of waste feed to PFNW will significantly impact their operational status (i.e., furloughs and/or layoffs).<br>3) RL's action to authorize and or fund this action.<br><br>If the TRUM 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 TRUM waste to meet M-091-47C and -47D objectives for FY2017 and FY2018.<br><br><b>Current alternative course of action:</b><br>To minimize potential impacts to PFP, the plan is to send the PRF Canyon Floor waste to CWC for interim storage, and then <b>if required</b> , gradually ship the waste packages to PFNW for processing as license limits permit. However by doing this, RL-0013 will assume the regulatory risk associated with the waste (i.e., more stringent requirements under RCRA at CWC compared to under CERCLA at PFP); additionally, <b>if treatment is required</b> , it will still load up PFNW with respect to their Pu limits for several years which <b>would</b> significantly limit the shipment of other Pu containing waste (i.e., legacy large container TRU/M waste) to PFNW for processing. |   |   |       |   |                      |         |   |   |          |     |   |          |
| <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)   |   |   |       |   |                      |         |   |   |          |     |   |          |

| Risk Title   | Unmitigated Risk Impacts  | Assessment |       | Comments  |                       |         |   |  |          |     |  |         |   |
|--|---|------------|-------|---|-----------------------|---------|---|--|----------|-----|--|---------|---|
|  |   | Month      | Trend |   |                       |         |   |  |          |     |  |         |   |
| <b>RL-0013/WBS-013</b>   |   |            |       |   |                       |         |   |  |          |     |  |         |   |
| WSD-097: Major Equipment Failure - T-Plant   | T Plant suffers a major equipment failure (crane, primary power supply, etc.), resulting in cost impacts, and schedule delays.<br><br><b>Risk Handling Strategy:</b> Accept<br><br><b>Probability:</b> Low (10% to 25%)<br><b>Worst Case Impacts:</b> \$2 million, 33 days  | ●          | ↔     | <p><b>Risk Trigger Metric:</b><br/>During planned <b>facility operations</b> 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"> <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 <b>May</b>.<br/>The mitigation strategies have been put in place (i.e., aggressive S&amp;M activities), as a result, the risk strategy is to accept with no further mitigation actions. Work to repair/replace the Crane rail clip is complete. The crane is currently operational. 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        |       |   |                       |         |   |  |          |     |  |         |   |
| WSD-136:CWC Components Fail  | CWC facilities and components may reach their end of life or become obsolete. These items will need to be replaced and/or repaired outside of planned funding profiles, resulting in cost impacts.<br><br><b>Risk Handling Strategy:</b> Accept<br><br><b>Probability:</b> Medium (26% to 74%)<br><b>Worst Case Impacts:</b> \$1.5 million, 0 day   | ●          | ↔     | <p><b>Risk Trigger Metric:</b><br/>During planned <b>facility operations</b> 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"> <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 <b>May</b>.<br/>The mitigation strategies have been put in place (i.e., S&amp;M activities), as a result, the risk strategy is to accept with no further mitigation actions. 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        |       |   |                       |         |   |  |          |     |  |         |   |
| WSD-137: OPP: Planned Efficiencies   | Funding profile for the contract period are achieved through efficiencies.<br><b>Risk Handling Strategy:</b> Exploit<br><br><b>Probability:</b> Likely (75% to 90%)<br><b>Worst Case Impacts:</b> \$32 million, 0 day   | ●          | ↔     | <p><b>Risk Trigger:</b> Will continue throughout project lifecycle (September 30, 2018).</p> <table border="1"> <thead> <tr> <th>Opportunity action(s)</th> <th>FC Date</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Plan work activities and procurements to be as efficient as possible with minimal resources.</td> <td>On-Going</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Opportunity Assessment:</b><br/>No changes in the month of <b>May</b>.<br/>The project is continuing implementation of planned efficiencies (approximately \$50 million to date), however, due to impacts associated with increased regulatory scrutiny, maintenance lessons learned across CHPRC/ DOE Complex, and heightened compliance postures, forecasts will be updated to reflect a reduced level of efficiencies through the balance of the contract period of performance.</p>  | Opportunity action(s) | FC Date | % | Plan work activities and procurements to be as efficient as possible with minimal resources.           | On-Going | N/A |  |         |   |
| Opportunity action(s)  | FC Date   | %          |       |   |                       |         |   |  |          |     |  |         |   |
| Plan work activities and procurements to be as efficient as possible with minimal resources.   | On-Going  | N/A        |       |   |                       |         |   |  |          |     |  |         |   |
| <b>FY2016 Risk Triggers (Risk could be realized in FY2016)</b>   |   |            |       |   |                       |         |   |  |          |     |  |         |   |
| WSD-W130-18: Failure of WESF Hot Cell during Grouting  | There is a risk that the capacity of the floor or walls of the hot cells cannot sustain the applied loads from grout and fails. In addition, a failure to the cover blocks and or the canyon floor result 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> \$650K, 144 days | ●          | ↔     | <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>Compare actual grout fill volume with estimated value to determine if hot pipe trench has been filled.</td> <td>9/30/16</td> <td>0</td> </tr> <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>9/30/16</td> <td>0</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b><br/>No change in the month of <b>May</b>.<br/>Structural evaluations and calculations have been completed and identified controls necessary during grouting (limit lifts of grout placement to 3 feet, compare actual grout volume placed to calculate estimated volume).<br/>No alternative course of actions needed at this time.</p> | Mitigation action(s)  | FC Date | % | Compare actual grout fill volume with estimated value to determine if hot pipe trench has been filled. | 9/30/16  | 0   | 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. | 9/30/16 | 0 |
| Mitigation action(s)   | FC Date   | %          |       |   |                       |         |   |  |          |     |  |         |   |
| Compare actual grout fill volume with estimated value to determine if hot pipe trench has been filled.   | 9/30/16   | 0          |       |   |                       |         |   |  |          |     |  |         |   |
| 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. | 9/30/16   | 0          |       |   |                       |         |   |  |          |     |  |         |   |
| <b>Unassigned Risks (Pending ownership of identified risks/opportunities)</b>  |   |            |       |   |                       |         |   |  |          |     |  |         |   |
| No unassigned risks identified in the month of <b>May</b> .  |   |            |       |   |                       |         |   |  |          |     |  |         |   |

## PROJECT BASELINE PERFORMANCE

### Current Month

(\$M)

| WBS 013/RL-0013<br>Waste and Fuels<br>Management<br>Project | 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>(%) |
|---|--|--|--|------------------------------|-----------------------------|--------------------------|-------------------------|
| Total   | 7.6                                      | 7.3                                      | 7.8                                    | (0.4)                        | -5.3%                       | (0.6)                    | -7.7%                   |

Numbers are rounded to the nearest \$0.1 million

#### CM Schedule Performance (-0.4M/-5.3%)

The current month schedule variance is within threshold.

#### CM Cost Performance (-0.6M/-7.7%)

The current month unfavorable cost variance is due to additional labor resources and overtime, engineering support and materials on WESF Ventilation and Stabilization Project (W-130).

## 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   | 1,053.4                                  | 1,052.2                                  | 987.2                                  | (1.1)                        | -0.1%                       | 65.0                     | 6.2%                    | 1,333.1                          | 1,249.3                            | 83.8                               |

Numbers are rounded to the nearest \$0.1 million

#### CTD Schedule Performance (-1.1M/-0.1%)

The schedule variance is within threshold.

#### CTD Cost Performance (+\$65.0M/+6.2%)

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

#### Variance at Completion (+\$83.8M/+6.3%)

The Variance at Completion is due to continued implementation of planned efficiencies and is partially offset by realized risks as reference on page C1.

**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 | FY2016               |                      |                   |
|--|----------------------|----------------------|-------------------|
|  | Projected<br>Funding | Spending<br>Forecast | Spend<br>Variance |
| Spending Forecast  | 106.7                | 92.7                 | 14.0              |
| Incremental Scope Pending<br>Change Management           | 0.0                  | 13.4                 | (13.4)            |
| RL-0013 – Total  | 106.7                | 106.1                | 0.6               |

Numbers are rounded to the nearest \$0.1 million.

### Funds/Variance Analysis

FY2016 project funding increased by \$0.1 million for RL-0013 due to the approved Buy Back list. The FYSF was increased from \$104.4 million to \$106.1 million due to buy back scope, and more accurate estimate for roof repairs.

### Critical Path Schedule

Critical path analysis can be provided upon request.

### Baseline Change Requests

BCR-013-16-022R0, *CSB StackFlow Testing & 90 Mil Venting Deferral*

BCR-013-16-023R0, *Realignment of Select M-091 Waste Management Milestones*

BCR-PRC-16-042R0, *HPIC Updates May 2016*

## MILESTONE STATUS

Hanford Federal Facility Agreement and Consent Order (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 |
|-----------|---|----------|-------------|---------------|-----------------|
| M-091-03J | Submit Revision of TRUM Waste and MLLW PMP to Ecology.  | 6/30/16  |             | 6/30/16       | On Schedule     |
| M-091-47B | Certify or treat 280 cubic meters of TRUM/MLLW waste in FY2016. Submit a change request to establish the next two interim milestones for annual certification of TRUM waste and disposal of MLLW. | 9/30/16  | 5/4/16      | 9/30/16       | Completed       |
| M-091-51  | Submit secondary document for new or modified facilities to process all Hanford Site RH TRUM waste.   | 9/30/16  |             | 9/30/16       | On Schedule     |
| C-026-07K | Tritium Treatment Technology Developments to Ecology & EPA  | 3/31/17  |             | 3/31/17       | On Schedule     |

## SELF-PERFORMED WORK

The Section H.20 clause, entitled “Self-Performed Work,” is addressed in the Overview.

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

| Contract Section | Project                                 | GFS/I   | Status                                      |
|------------------|---|---|---|
| <b>CONTRACT</b>  |   |   |   |
| 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. | Ongoing (pending restart of WIPP Shipments) |

# Section D

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



K. L. Wiemelt  
Vice President and  
Project Manager for  
Soil and Groundwater  
Remediation Project

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

May 2016  
CHPRC-2016-05, Rev. 1  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

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 May 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             | 34.5                    | 263.9         | 5.9         | 48.9         |                 |             |                   |              |                            |                            |              |             |
| HX P&T             | 29.9                    | 171.8         | 2.1         | 16.8         |                 |             |                   |              |                            |                            |              |             |
| KR-4 P&T           | 14.7                    | 109.4         | 0.3         | 2.4          |                 |             |                   |              |                            |                            |              |             |
| KW P&T             | 7.4                     | 107.2         | 0.3         | 5.5          |                 |             |                   |              |                            |                            |              |             |
| KX P&T             | 36.4                    | 288.2         | 2.1         | 17.5         |                 |             |                   |              |                            |                            |              |             |
| 200 West P&T       | 47.7                    | 570.4         | 3.1         | 44.2         | 104             | 1331        | 4960              | 55385        | .23x10 <sup>12</sup>       | 2.0x10 <sup>12</sup>       | 5.1          | 20.1        |
| <b>Combined</b>    | <b>170.5</b>            | <b>1510.8</b> | <b>13.8</b> | <b>135.3</b> | <b>104</b>      | <b>1331</b> | <b>4960</b>       | <b>55385</b> | <b>.23x10<sup>12</sup></b> | <b>2.0x10<sup>12</sup></b> | <b>5.1</b>   | <b>20.1</b> |

| Well Drilling by Area      | FY2016 Planned | Current Month | FY2016 Cumulative |
|----------------------------|----------------|---------------|-------------------|
| 100-KR-4                   | 3              | -             | -                 |
| 100-HR-3                   | 8              | 1             | 1                 |
| 200-UP-1                   | 7              | -             | 1                 |
| 200-UP-1 Chromium Plume    | 3              | -             | -                 |
| 200-ZP-1 C9521             | 1              | 1             | 1                 |
| 200-ZP-1 monitoring        | 2              | -             | 2                 |
| M-24 Milestone 100-NR-2    | 6              | -             | -                 |
| M-24 Milestone C Farm      | 1              | -             | 1                 |
| Vadose Zone                | 1              | -             | 1                 |
| 100-F I/U                  | 8              | 4             | 4                 |
| <b>Total Wells</b>         | <b>40</b>      | <b>6</b>      | <b>11</b>         |
| <b>Site Wide Boreholes</b> | <b>25</b>      | <b>2</b>      | <b>12</b>         |

## EMS Objectives and Target Status

| Objective  | Target   | Actions  | Due Date | Status | Overall Target Status |
|--|--|--|----------|--------|-----------------------|
| 16-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.   | Compile 1 <sup>st</sup> quarter emissions evaluation.  | 12/31/15 | 100%   | 66%                   |
|  |  | Compile 2 <sup>nd</sup> quarter emissions evaluation.  | 3/31/16  | 100%   |                       |
|  |  | Compile 3 <sup>rd</sup> quarter emissions evaluation.  | 6/30/16  | 66%    |                       |
|  |  | Compile 4 <sup>th</sup> quarter emissions evaluation and complete work site assessment on FY2016 emissions.  | 9/30/16  | 0%     |                       |
| 16-EMS-SGWR-OB2<br>More effective promotion of EMS   | T1 – Promote and increase S&GRP project personnel EMS awareness via various means throughout FY2016.   | Present four EMS topics to S&GRP personnel, typically during the S&GRP Monday Tailgate, S&GRP Supervisors' Meeting, or S&GRP All-Hands Meeting.  | 9/30/16  | 100%   | 100%                  |
| 16-EMS-SGWR-OB3<br>Promote a more thorough understanding of the regulatory umbrella under which S&GRP conducts operations. | T1 – Promote and increase S&GRP project personnel environmental regulatory awareness via various means, targeting small group settings, throughout FY2016. | Facilitate four regulatory related discussions based on such topical areas as RCRA Permit, CERCLA Decision Documents, Waste Management, Air Permit, etc. These discussions would typically be targeted at smaller S&GRP group settings such as staff meetings, department meetings, PODs, etc. | 9/30/16  | 50%    | 50%                   |
| 16-EMS-SGWR-OB4<br>Reduce the risk of noncompliance with environmental requirements.                                       | T1 – Develop compliance matrices for S&GRP P&T facilities CERCLA RD/RAWPs.   | Identify implementing mechanisms and gaps for environmental requirements (i.e., requirement matrices) for the following RD/RAWPs: DOE/RL-96-84, Revision 0 and 0-A, DOE/RL-2006-52, DOE/RL-2006-75, and DOE/RL-2008-78.  | 9/30/16  | 35%    | 35%                   |

## TARGET ZERO PERFORMANCE

|                                      | CM Quantity | Rolling 12 Month | Comment  |
|--------------------------------------|-------------|------------------|--|
| Days Away, Restricted or Transferred | 1           | 2                | <ul style="list-style-type: none"> <li>5/3/2016 – A 5 ft. roll of plastic fell striking another operator on the hip. Hanford EMT was called and evaluated the employee. The operator was treated with over the counter medication and referred to an offsite medical provider for additional treatment. He received chiropractic adjustments and was advised by the chiropractor to go home for the remainder of the day. (23999)</li> </ul>   |
| Total Recordable Injuries            | 1           | 4                | <ul style="list-style-type: none"> <li>5/3/2016 – A 5 ft. roll of plastic fell striking another operator on the hip. Hanford EMT was called and evaluated the employee. The operator was treated with over the counter medication and referred to an offsite medical provider for additional treatment. He received chiropractic adjustments and was advised by the chiropractor to go home for the remainder of the day. (23999)</li> </ul>   |
| First Aid Cases                      | 4           | *48              | <ul style="list-style-type: none"> <li>5/2/2016 – Employee was bitten/stung by an insect. The employee was provided a tetanus shot at Site Medical and returned to work without restrictions. (23998)</li> <li>5/10/2016 – Employee neared cordoned off area near TX/TY Farm and a few minutes later began experiencing a sore throat, tight chest and cough. The employee went to Site Medical, was treated with over the counter medication and lab work was completed. The employee returned to work without restrictions. (24007)</li> <li>5/11/2016 – Employee was bitten/stung by an insect. The employee was examined at Site Medical and returned to work without restrictions. (24010)</li> <li>5/23/2016 – While bending over to attach a tag to a hose, the employee's foot caught the edge of the grating and fell forward onto their side. The employee was taken to Site Medical for examination and returned to work without restrictions. (24016)</li> </ul> <p>*12 FA cases, PTS in support of RL-0030.</p> |
| Near-Misses                          | 1           | 4                | <ul style="list-style-type: none"> <li>5/3/2016 – A 5 ft. roll of plastic fell striking another operator on the hip. Hanford EMT was called and evaluated the employee. The operator was treated with over the counter medication and referred to an offsite medical provider for additional treatment. He received chiropractic adjustments and was advised by the chiropractor to go home for the remainder of the day. (23999)</li> </ul>   |

## KEY ACCOMPLISHMENTS

### **RL-0030.O1 RL 30 Operations RL 30 Integration & Assessments**

#### **Risk & Modeling Integration**

- Participated in the Low-Level Waste Disposal Facility Federal Review Group semi-annual business meeting.

### **RL-0030.O1 RL 30 Operations River Corridor**

#### **100-BC-5 Operable Unit**

- Provided draft Environmental Calculation brief to RL on May 18, 2016. This brief documents the calculation for the hexavalent chromium surface water threshold protective of exposed aquatic receptors in the Hanford Reach of the Columbia River.

#### **100-FR-3 Operable Unit**

- Completed drilling seven of the eight planned remedy monitoring wells. Development of those wells is underway.

#### **100-HR-3 Operable Unit**

- Completed installation of the test equipment and collection of baseline information for the RUM aquifer pumping test. Completed two of the five tests in May.
- Completed comment resolution of the Interim Remedial Design/Remedial Action Work Plan (RD/RAWP), Operations & Maintenance Plan, and Sampling Analysis Plan (SAP). Obtained RL, Ecology and EPA signatures on the Revision 0 documents.
- Awarded the eight well drilling campaign and initiated drilling.

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

- Initiated KW Rebound Study on May 16, 2016.
- Awarded the three well drilling campaign and completed installation of the roads and pads. Drilling is planned to begin in June.

#### **100-NR-2 Operable Unit**

- Completed resolution for RL and Ecology comments on the final draft Revision 2 Interim Action RD/RAWP and SAP.
- Awarded the six well drilling campaign and completed the required cultural training.

### **Central Plateau**

#### **200-UP-1 Operable Unit**

- Prepared draft TPA Change Notice to RL for the 200-UP-1 RD/RAWP that proposes 20 wells to meet TPA Milestone M-016-193. Provided draft presentation of the path forward to modify this TPA milestone that includes pushing the completion date out one year.

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

- Completed the public review process for the Rev 0 200-BP-5 Engineering Evaluation/Cost Analysis and initiated preparation of the Action Memorandum.

#### **200-IS-1 Operable Unit**

- Completed scoping summaries on the additional seven waste units.
- Conducting segmentation for all waste units that cross remediation implementation area boundaries.
- Conducted two initial evaluation workshops for the remedial investigation/feasibility study (RI/FS) work plan with RL and Ecology.

**200-SW-2 Operable Unit**

- Conducted final comment resolution and page turn review on the 200-SW-2 RI/FS work plan with RL and Ecology. Received Ecology closeout signatures on the Review Comment Record (RCR). This completes the commitment to provide comment responses and the updated work plan path forward by May 31, 2016 (16-AMRP-0186 dated May 26, 2016) and closes out the current extension request.

**200-EA-1 Operable Unit**

- Conducted scoping summary kick off meeting and initiated preparation of the scoping packages on the initial eight waste units.

**200-CW-5 and 200-PW-1/3/6 Operable Unit**

- Received RL approval of the Revision 0, Remedial Design/Remedial Action Work Plan for the 200-CW-5, 200-PW-1, 200-PW-3, and 200-PW-6 Operable Units.
- Received RL approval of the Revision 0, Sampling and Analysis Plan for the 200-CW-5, 200-PW-1, and 200-PW-6 Operable Units.

**200-PW-1 Operable Unit**

- Transmitted Revision 0 Draft 200-PW-1 OU Soil Vapor Extraction Response Action Report to RL, which was subsequently transmitted to EPA for final review before approval.

**200-DV-1 Operable Unit**

- Mobilized the sonic drill rig to borehole C9494 (216-T-5) on May 24, 2016.
- Completed decommissioning of the remaining BY Crib boreholes (C9549 and C8706), and B-Complex boreholes (C9487 and C9488). Seven boreholes have been decommissioned to date.
- Completed the second of three perched water tests. Hydraulic test 3 commenced on May 17, 2016, with the pumping of all three perched water wells for 60 days continuously.

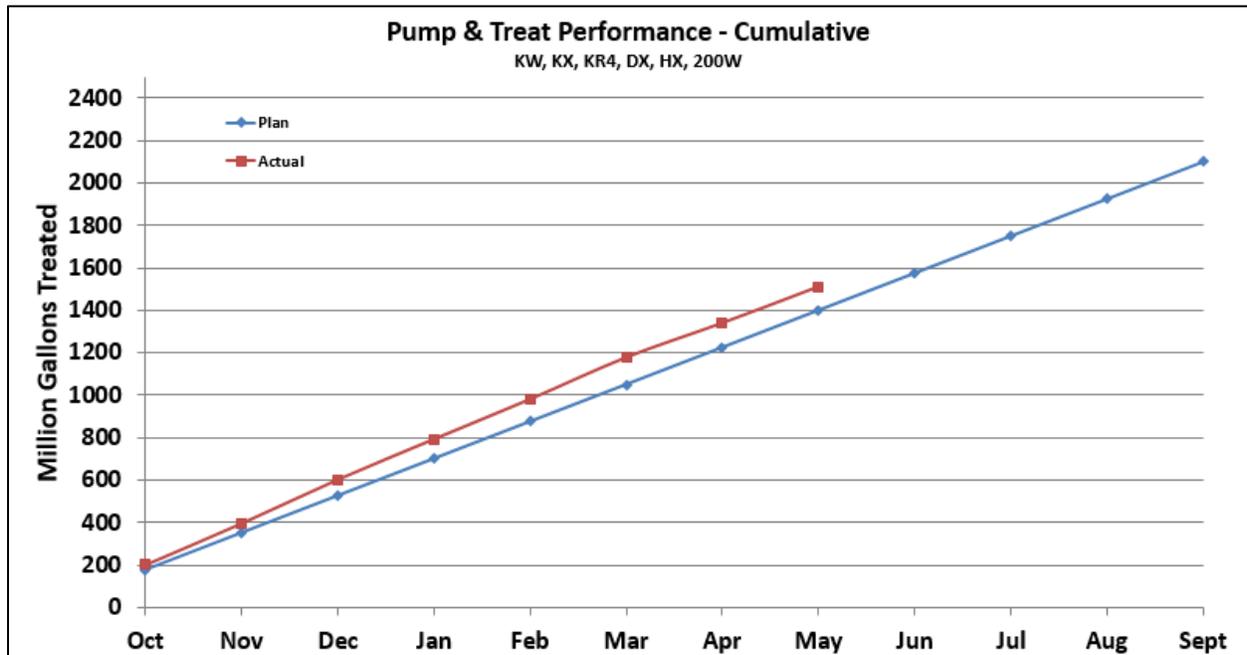
**Groundwater P&T Facilities****200 West P&T**

- Operated the 200 West P&T at an average of 1,069 gpm. Lower flow volumes have been experienced because Fluidized Bed Reactor (FBR) A is offline for repair.
- Completed MBR cassette installation and initiated operational acceptance testing.

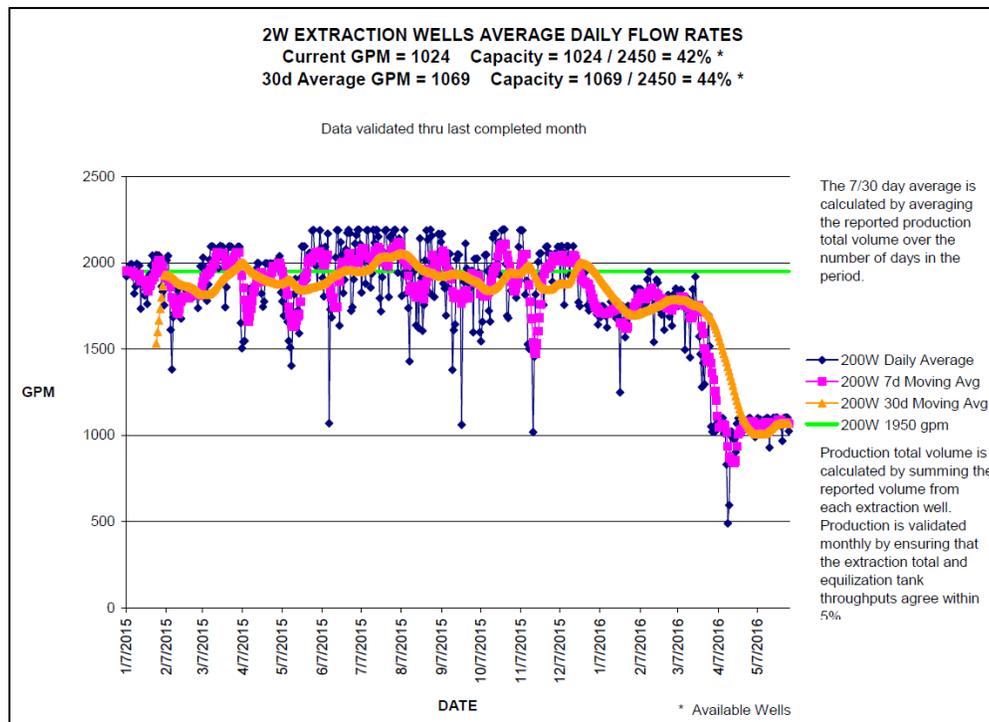
**100 Area P&Ts**

- Operated the DX P&T at 772 gpm, near the facility capacity of 775 gpm.
- Operated the KR-4 P&T at 329 gpm, near the facility capacity of 330 gpm.
- Operated the KW P&T at 165 gpm, near the facility capacity of 330 gpm. Note that this facility was turned off on May 16, 2016, to perform a rebound study.
- Operated the KX P&T at 816 gpm, below the facility capacity of 900 gpm.
- Operated the HX P&T at maximum extraction well capacity. Monthly average at approximately 671 gpm.

### FY2016 P&T Operations



### 200 West P&T



## MAJOR ISSUES

**Issue:**

Experiencing regulatory agency delays in the approval of decision documents, including the legal reviews of the 100-D/H Proposed Plan (DOE/RL-2011-111), extended comment resolution on the 100-N RI/FS Report (DOE/RL-2012-15, Draft A), and Ecology approval of the 200-IS-1 Tri-Party Agreement change packages (C-013-01 and C-014-02), which affect 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 (NOC) 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:

- 100-HR-3: Resolution of EPA legal comments on the proposed plan (PP) continues. Meetings continue to be held between all three agencies to resolve comments.
- 100-NR-2: Weekly project performance meetings continue to be held infrequently (as issues arise or work is completed by Ecology), while RL reviews the revised Remedial Investigations (RI) chapters and the six new characterization/monitoring wells are installed.
- 200-IS-1: Ecology continues to review change package C-13-01, which was provided on December 19, 2015. Dispute has been extended to August 1, 2016.

In addition to the specific document, an overall document improvement process using the Kaizen technique is planned to begin in June 2016 with all three agencies.

**Issue:**

A small water leak near the base of FBR-A was discovered on March 21, 2016. The leak condition deteriorated and carbon media was intermittently discharged to the bio pad on March 31, 2016. A decision to place FBR A out of service occurred on March 31, 2016.

**Corrective Action:**

The carbon media will be removed from the FBR while a statement of work is prepared and issued to obtain bids from qualified fiberglass repair vendors. Efforts to prepare the FBR for entry and repair will continue while the contract for repairs is processed.

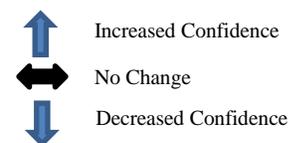
**Status:**

Investigation efforts and repair planning were performed in May.

## 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>May</b> .                                |  |   |   |   |                         |           |         |   |  |        |          |     |
| <b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>                         |  |   |   |   |                         |           |         |   |  |        |          |     |
| SGW-NR2-03:<br>Cultural Resource Reviews   | Cultural and ecological resource reviews impact start of borehole, aquifer and all other actions in the OU due to defining the area as a TCP; resulting in cost and schedule impacts. However, results and significant delays for historical and archeological reviews are beyond the scope of CHPRC risk.<br><br><b>Risk Handling Strategy:</b> Control<br><br><b>Probability:</b> Low (10% to 25%)<br><br><b>Worst Case Impacts:</b> \$2 million, 44 day | <span style="color: red; font-size: 20px;">●</span>   | <span style="color: black; font-size: 20px;">↔</span> | <b>Risk Event:</b><br>The baseline scope of work for D&D of the P&T system assumed the project would rely on “normal work approaches” including conventional use of heavy equipment; however, the cultural resource review determined that a change in execution approach would be required and a more deliberate and cautious approach is warranted. To accommodate the cultural review, the project is prohibited from using construction machines off-road in areas of the site with old growth sage and other native plants. Instead, the work will be performed with hand tools.<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>Implement baseline change request to draw down management reserve to cover change in execution approach.</td> <td style="text-align: center;">3/1/16</td> <td style="text-align: center;">Complete</td> <td style="text-align: center;">100</td> </tr> </tbody> </table> <b>Risk Assessment:</b><br>A BCR was implemented in May and beginning in June this risk will no longer be reported. It will be tracked internally until the D&D project is complete. The risk will be closed when the D&D activities are completed in FY2017.  | Risk recovery action(s) | Risk Date | FC Date | %   | Implement baseline change request to draw down management reserve to cover change in execution approach. | 3/1/16 | Complete | 100 |
| Risk recovery action(s)  | Risk Date  | FC Date   | %   |   |                         |           |         |   |  |        |          |     |
| Implement baseline change request to draw down management reserve to cover change in execution approach. | 3/1/16   | Complete  | 100   |   |                         |           |         |   |  |        |          |     |
| OPPORTUNITY:<br>SGW-007A:<br>Sampling Requirement Reduction  | Reduction in field sampling (locations, frequency, or total number of samples collected) has the opportunity to reduce long-term groundwater monitoring cost.<br><b>Risk Handling Strategy:</b> Exploit<br><br><b>Probability:</b> Medium (26% to 74%)<br><br><b>Worst Case Impacts:</b> \$3 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 all groundwater SAPs over the next two years.<br><br><table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <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;">9/30/16</td> <td style="text-align: center;">50</td> </tr> </tbody> </table> <b>Opportunity Assessment:</b><br><br>All ten CERCLA groundwater monitoring SAPs have been revised and transmitted to RL and the regulators. Six of the ten CERCLA SAPs are approved by RL and the Agencies. All 100-NR-2 SAP comments have been resolved and are waiting for completion of the RD/RA work plan. Comment resolution with the Agencies is on-going for two CERCLA SAPs (200-BP-5 and 200-PO-1). The 100-KR-4 SAP has not been formally transmitted to EPA.<br><br>All 24 RCRA monitoring plans have been reviewed and revised, as appropriate. Twelve of the RCRA monitoring plans have been revised and transmitted to Ecology. We have received comments from Ecology on all but one monitoring plan (A/AX Farm). Three of the monitoring plans have been implemented and the remaining are in final comment disposition. CHPRC is planning to have them complete and implemented by calendar year-end.<br><br>Monitoring under the new AEA plan has been implemented.<br><br>No alternative course of actions are needed at this time. | Opportunity action(s)   | FC Date   | %       | Obtain Agency approval of the revised SAPs. | 9/30/16  | 50     |          |     |
| Opportunity action(s)  | FC Date  | %   |   |   |                         |           |         |   |  |        |          |     |
| Obtain Agency approval of the revised SAPs.  | 9/30/16  | 50  |   |   |                         |           |         |   |  |        |          |     |

| Risk Title  | Unmitigated Risk Impacts   | Assessment  |   | Comments   |                         |           |         |   |   |           |           |    |  |           |          |    |   |          |          |     |
|---|--|---|---|--|-------------------------|-----------|---------|---|---|-----------|-----------|----|--|-----------|----------|----|---|----------|----------|-----|
|   |  | Month   | Trend   |  |                         |           |         |   |   |           |           |    |  |           |          |    |   |          |          |     |
| <b>RL-0030/WBS-030</b>  |  |   |   |  |                         |           |         |   |   |           |           |    |  |           |          |    |   |          |          |     |
| <p><b>PRC-005: Delayed Document Approvals</b></p>   | <p>Required regulatory, nuclear safety, or transportation safety documents are not approved within the scheduled timeframes and impact CHPRC scheduled activities.<br/> <b>Risk Handling Strategy:</b> Transfer</p> <p><b>Probability:</b> Very Likely (&gt;90%)</p> <p><b>Worst Case Impacts:</b> TBD</p> |  |  | <p><b>Risk Event:</b><br/>                     Progress on several key decision documents have been delayed due to regulator comments and resource availability:</p> <p>a) 100-D/H PP: Ecology comments on the draft Revision 0 100-D/H PP were not received within 30 days of transmittal (September 2014). As a result, it is not possible to complete the document within the timeframe identified in the Tri-Party Agreement without extensions.</p> <p>b) 100-N RI/FS: Ecology comments on the Draft A 100-N RI/FS and PP were not received within 45 days of transmittal (June 2013). As a result, it is not possible to complete the document within the timeframe identified in the TPA without extensions.</p> <p>c) 200-IS-1 RI/FS Work Plan (WP): RL invoked dispute resolution on December 10, 2013, for Tri-Party Agreement milestone M-015-112, Submit Draft B 200-IS-1 OU RI/FS WP. Resolution of this dispute, which includes the 200-IS-1 OU waste sites and TSD/past practice status, is required before the Draft B RI/FS WP can be submitted.</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>Resolution with Ecology/EPA on Draft Revision 0 100-D/H PP.</td> <td>Sept 2014</td> <td>June 2016</td> <td>90</td> </tr> <tr> <td>Resolution with Ecology on Draft A 100-N RI/FS Report.</td> <td>June 2013</td> <td>Dec 2016</td> <td>50</td> </tr> <tr> <td>Complete waste site scope definition and dispute resolution with Ecology on Draft B 200-IS-1 RI/FS.</td> <td>Dec 2013</td> <td>Aug 2016</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Risk Assessment:</b></p> <p>a) 100-D/H PP: Meetings continue with EPA, Ecology and RL to resolve EPA's legal comments. A technical memorandum to evaluate the 106 100-D/H waste sites that were remediated following completion of the RI/FS was prepared and approved.</p> <p>b) 100-N RI/FS: The revised RI report was provided to RL for review. This RI report incorporates Ecology's comments that have been resolved to date. The document comment disposition period of performance is through September 2016 (16-NWP-061).</p> <p>c) 200-IS-1 RI/FS WP: Ecology continues to review the revised change package C-13-01, which was submitted to Ecology on December 19, 2015. TPA milestone negotiations require one month following change package C-13-01 agreement. The dispute resolution period has been extended to August 1, 2016.</p> | Risk recovery action(s) | Risk Date | FC Date | % | Resolution with Ecology/EPA on Draft Revision 0 100-D/H PP. | Sept 2014 | June 2016 | 90 | Resolution with Ecology on Draft A 100-N RI/FS Report. | June 2013 | Dec 2016 | 50 | Complete waste site scope definition and dispute resolution with Ecology on Draft B 200-IS-1 RI/FS. | Dec 2013 | Aug 2016 | N/A |
| Risk recovery action(s)   | Risk Date  | FC Date   | %   |  |                         |           |         |   |   |           |           |    |  |           |          |    |   |          |          |     |
| Resolution with Ecology/EPA on Draft Revision 0 100-D/H PP.   | Sept 2014  | June 2016   | 90  |  |                         |           |         |   |   |           |           |    |  |           |          |    |   |          |          |     |
| Resolution with Ecology on Draft A 100-N RI/FS Report.  | June 2013  | Dec 2016  | 50  |  |                         |           |         |   |   |           |           |    |  |           |          |    |   |          |          |     |
| Complete waste site scope definition and dispute resolution with Ecology on Draft B 200-IS-1 RI/FS.                         | Dec 2013   | Aug 2016  | 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 <i>May</i> .   |  |   |   |  |                         |           |         |   |   |           |           |    |  |           |          |    |   |          |          |     |
| <b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)                                   |  |   |   |  |                         |           |         |   |   |           |           |    |  |           |          |    |   |          |          |     |
| No high risks identified in the month of <i>May</i> .   |  |   |   |  |                         |           |         |   |   |           |           |    |  |           |          |    |   |          |          |     |
| <b>Unassigned Risks</b> (Pending ownership of identified risks/opportunities)   |  |   |   |  |                         |           |         |   |   |           |           |    |  |           |          |    |   |          |          |     |
| No unassigned risks identified in the month of <i>May</i> .   |  |   |   |  |                         |           |         |   |   |           |           |    |  |           |          |    |   |          |          |     |

## 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   | 12.4                                  | 11.0                                     | 9.7                                 | (1.4)                        | -11.6%                      | 1.3                      | 12.0%                   |

Numbers are rounded to the nearest \$0.1 million.

#### CM Schedule Performance (-\$1.4M/-11.6%)

The negative schedule variance resulted from the following:

- Positive schedule variance earned in the current fiscal year returning to zero on the MBR cassette installation and 200 West P&T Operations.
- Construction of the 200-BP-5 pipeline has been slowed to align with the procurement actions needed to tie in the 200-DV-1 perched water pipeline. Both variances will be recovered in the current fiscal year.
- 200-DV-1 Operable Unit RCRA RFI/RI and CMS/FS documentation will not be started until the fieldwork is completed (currently scheduled for September 2017).
- Preparation of the 200-OA-1 RI/FS, 200 East closure plans, and associated project management was deferred until FY2017 to align with priority list and available funding.

#### CM Cost Performance (+\$1.3M/+12.0%)

The positive cost variance resulted from the following:

- Continuing to experience efficiencies in the Groundwater Monitoring and Performance Assessment account associated with lower analytical laboratory costs. These lower costs are due to the use of offsite laboratories, and lower geophysical logging costs during well drilling due to the competitive procurement process.
- The 200-ZP-1 Operable Unit experienced a positive current month cost variance on the performance of the MBR cassette installation and initiation of the operational acceptance testing. Installation has proceeded more smoothly than anticipated resulting in the use of fewer resources (labor/UBS/subcontractor) than originally planned. Plant flows have been lowered to accommodate the MBR cassette installation and the FBR leak that is being repaired, resulting in lower operational costs (fewer chemicals, etc.).

## 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   | 1,240.3                                  | 1,225.4                                  | 1,199.7                                | (14.8)                       | -1.2%                       | 25.7                     | 2.1%                    | 1,564.8                          | 1,525.9                            | 38.9                               |

Numbers are rounded to the nearest \$0.1 million.

### CTD Schedule Performance (-\$14.8M/-1.2%)

The variance is within reporting thresholds.

### CTD Cost Performance (+\$25.7M/+2.1%)

The variance is within reporting thresholds.

### Variance at Completion (+\$38.9/+2.5%)

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 | FY2016               |                      | Spend<br>Variance |
|--|----------------------|----------------------|-------------------|
|  | Projected<br>Funding | Spending<br>Forecast |                   |
| Spending Forecast                              | 127.5                | 120.5                | 7.0               |
| Incremental Scope Pending<br>Change Management | 0.0                  | 1.1                  | (1.1)             |
| RL-0030 –Total                                 | 127.5                | 121.6                | 5.9               |

Numbers are rounded to the nearest \$0.1 million

### Funds/Variance Analysis

RL-0030 FY2016 expected funding increased by \$3.2 million to \$127.5 million. The FYSF of \$121.6 million includes actions anticipated to meet funding targets.

### Critical Path Schedule

Critical path analysis can be provided upon request.

**Baseline Change Requests**BCR-030-16-030R0, *Cultural Resource Review Realized Risk – 100-NR-2 P&T D&D*BCR-030-16-035R0, *Revise Method of Performance for Composite Analysis Workshop Activities*BCR-030-16-036R0, *PBS RL-0030 WBS Dictionary Updates*

BCRA-PRC-16-042R0, HPIC Update May 2016

**MILESTONE STATUS**

Hanford Federal Facility Agreement and Consent Order (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 BCRs 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. This agreement was in public review through February 12, 2016 (extended from December 11, 2015). Modifications stemming from public comments are being discussed between the agencies. The following table is a one year look ahead of 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 Completed</b>                       |   |          |             |               |   |
| M-024-58I   | Initiate Discussions of Well Commitments  | 6/1/16   | 4/25/16     |               | Complete  |
| <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 August 1, 2016 (TPA change control form M-15-13-02). |
| <b>Milestones Included in Tentative Agreement</b> |   |          |             |               |   |
| M-015-21A   | Submit 200-BP-5 & 200-PO-1 OU FS Report and PP(s) to Ecology  | 6/30/15  |             | 5/30/18       | Proposed due date is 6/30/2018  |
| M-015-92A   | Submit RFI/CMS & RI/FS Work Plan for 200-EA-1 OU to Ecology   | 6/30/15  |             | 9/30/17       | Proposed due date is 9/30/2017  |
| M-015-110B  | Submit CMS & FS & PP/Proposed CA Decision for 200-DV-1 OU to Ecology                                  | 9/30/15  |             | 9/30/23       | Proposed due date is 9/30/2023  |
| M-015-38B   | Submit Revised FS Report and PP for CW-1, CW-3, & OA-1 to EPA   | 10/30/15 |             | 7/31/23       | Proposed due date is 7/31/2023  |

| Number                                   | Title   | Due Date | Actual Date | Forecast Date | Status/ Comment                               |
|--|---|----------|-------------|---------------|---|
| M-015-91B                                | Submit FS Report and PP for 200-WA-1 to EPA               | 12/31/15 |             | 7/31/21       | Proposed due date is 7/31/2021                |
| M-015-92B                                | Submit RFI/CMS, RI/FS and PP/CAD for 200-EA-1 to Ecology  | 12/31/16 |             | 11/30/22      | Proposed due date is 11/30/22                 |
| M-015-93B                                | Submit RFI/CMS, RI/FS and PP/CAD for 200-SW-2 to Ecology  | 12/31/16 |             | 1/31/23       | Proposed due date is 1/31/23                  |
| <b>Milestones on Schedule or at Risk</b> |   |          |             |               |   |
| M-024-67-T01                             | Conclude Discussions of Well Commitments                  | 8/1/16   |             | 8/1/16        | On schedule                                   |
| M-015-79                                 | Submit RI/FS Report/PP for 100-BC-1/2/5 OUs for GW & Soil | 12/15/16 |             | 12/15/16      | On schedule                                   |
| M-016-110-T03                            | Contain the Strontium-90 GW plume at the 100-NR-2 OU      | 12/31/16 |             | 4/13/20       | At risk, unable to accomplish work due to TCP |
| M-024-58J                                | Initiate Discussions of Well Commitments                  | 6/1/17   |             | 6/1/17        | On schedule                                   |

## SELF-PERFORMED WORK

The Section H.20 clause entitled, "Self-Performed Work," is addressed in the Overview.

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

None currently identified.

# 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)

May 2016  
CHPRC-2016-05, Rev. 1  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

The project completed the 200 East Tri-Annual Surveillances and completed the temporary repair to the PUREX stack sample line. The project also resolved comments on PUREX, Revision 9 DSA and continued the cold and dark planning for the demolition of high risk facilities at REDOX including 2710S, 2711S, and 2718S.

## 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             | 3                | N/A     |

## KEY ACCOMPLISHMENTS

- Operations/Maintenance:
  - o Completed characterization for 275EA in preparation for demolition.
  - o Completed repair of 221A East Wall.
  - o Picked up Potential Asbestos Containing Material at REDOX.
  - o Completed 224T Annual Surveillance.
  - o Repaired Fixed Contamination Areas at B-Plant.
  - o Performed annual and semi-annual PMs on B-Plant fans.
  - o Supported annual criticality safety assessment.
  - o Supported WDOH walk down of REDOX air Stack Emission.
  - o Completed annual B-Plant Exhaust system Stack & HEPA flow tests.
  - o Initiated Plutonium Nitrate Bag removal work package.
  - o Conducted Non-Destructive Assay (NDA) planning to support Plutonium Nitrate Bag and finalized removal strategy.
- Completed:
  - o 86 radiological facility surveillances.
  - o 26 PM activities.
- Continued Progress on Canyon Stabilization Documents:
  - o Revising draft B-Plant Engineering Evaluation Cost Analysis (EE/CA) after RL review; a change of alternatives is being incorporated after negotiations between RL and EPA/Ecology.
  - o Submitted EE/CA cost estimates for PUREX, REDOX, and B-Plant for RL Review.
  - o Initiated public comment on the 276-BA tank closure.
  - o Briefed EPA and Ecology on the B-Plant and REDOX EE/CA approach.

- o Completed draft of the B-Plant Tier II building Removal Action Work Plan (RAWP) and sent for internal review.
- o Finalized REDOX Fire Hazards Analysis (FHA) and sent to MSA/RL for review.
- o Completed hazard reduction documents for PUREX and B-Plant exterior demolition target structures (203A tank farm, 276-BA).
- Demolish REDOX Ancillary Facilities:
  - o Removed Class 1 & 2 Asbestos material from REDOX buildings 2711S and 2718S.
  - o Completed electrical and mechanical isolation at 2711S.
  - o Continued electrical and mechanical isolation at 2718S.

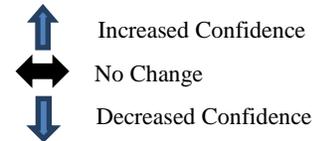
## MAJOR ISSUES

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 stoplight chart:</b><br>No major changes to the monthly stoplight chart in the month of <i>May</i> . |   |   |   |  |                      |         |   |                               |          |     |
| <b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)  |   |   |   |  |                      |         |   |                               |          |     |
| No realized risks for the month of <i>May</i> .   |   |   |   |  |                      |         |   |                               |          |     |
| <b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)                                 |   |   |   |  |                      |         |   |                               |          |     |
| No critical risks identified in the month of <i>May</i> .   |   |   |   |  |                      |         |   |                               |          |     |
| <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%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Mitigation action(s)</th> <th style="text-align: center;">FC Date</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr> <td>None identified at this time.</td> <td style="text-align: center;">On-Going</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table><br><b>Mitigation Assessment:</b><br>During monthly routine surveillance activities it was identified that this risk was triggered based on several events with the PUREX Stack Sample System (i.e., bearing sheaves, belt replacement, damper repairs, heat trace failure, and sample line damaged). Equipment is being procured to replace the damaged sample line. In addition, a design is being developed to provide RL with a conceptual design and estimate for replacing the entire PUREX stack sample system. With this data, RL will be able to provide PRC direction on how to proceed, <b>including the potential for a change proposal</b> .<br><br>No major changes in the month of <i>May</i> . The project continued efforts to procure equipment to <b>repair the damaged sample line</b> . | Mitigation action(s) | FC Date | % | None identified at this time. | On-Going | N/A |
| Mitigation action(s)  | FC Date   | %   |   |  |                      |         |   |                               |          |     |
| None identified at this time.   | On-Going  | N/A   |   |  |                      |         |   |                               |          |     |
| <b>Unassigned Risks</b> (Pending ownership of identified risks/opportunities)   |   |   |   |  |                      |         |   |                               |          |     |
| No unassigned risks identified in the month of <i>May</i> .   |   |   |   |  |                      |         |   |                               |          |     |

## 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  | 1.8                                      | 2.0                                      | 2.3                                    | 0.2                          | 9.4%                        | (0.3)                    | -15.8%                  |

Numbers are rounded to the nearest \$0.1 million

**CM Schedule Performance: (\$0.2M/9.4%)**

The schedule variance is within reporting thresholds.

**CM Cost Performance: (\$-0.3M/-15.8%)**

The cost variance is within reporting thresholds.

### 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  | 416.5                                    | 413.3                                    | 381.9                                  | (3.2)                        | -0.8%                       | 31.4                     | 7.6%                    | 469.1                            | 435.3                              | 33.8                               |

Numbers are rounded to the nearest \$0.1 million

**CTD Schedule Performance: (-\$3.2M/-0.8%)**

The schedule variance is within reporting thresholds.

**CTD Cost Performance: (+\$31.4M/+7.6%)**

The favorable cost variance is due to prior year activity that has been previously reported including:

- ARRA-funded work scope included efficiencies with Program Management (\$2.6 million), Cold and Dark and Characterization/Waste Identification Form teams (\$4.0 million), lower than planned capital equipment costs (\$3.0 million), efficiencies with Arid Lands Ecology (ALE) (\$3.7 million) and North Slope Facilities (\$1.2 million), disposition of railcars D&D (\$2.1 million), and Industrial 7 Project (\$3.6 million). This is offset by increased material and equipment costs, unexpected asbestos levels, and schedule delays in other ARRA D4 Projects (-\$15.3 million). Efficiencies in Outer Area Waste Sites (\$6.7 million) are primarily due to Remove, Treat, and Dispose (RTD) O-Zone Waste Sites, and ERDF pass back, which includes the operational efficiencies associated with use of the super dump truck. In addition, under runs in overhead allocation and Usage Based Services (\$7.4 million) contributed to the favorable cost variance.
- The remaining CTD favorable cost variance in base-funded work is due to efficiencies for waste site remediation and D4 activities as a result of utilization of existing site equipment and less resources (\$1.0 million), S&M costs less than expected (\$3.7 million), U Plant completion of the sampling of Cell 30 with less resources than planned (\$1.1 million), Program Management utilizing less resources (\$3.7 million), Emergency Response activities (\$0.8 million) and an underrun in overhead allocations (\$2.1 million).

**Variance at Completion (+\$33.8M/+7.2%)**

The Variance at Completion reflects the CTD cost variance explained above plus planned efficiencies.

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

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

| WBS 040/RL-0040<br>Nuclear Facility D&D        | FY2016               |                      | Spend<br>Variance |
|--|----------------------|----------------------|-------------------|
|  | Projected<br>Funding | Spending<br>Forecast |                   |
| Spending Forecast                              | 26.5                 | 21.9                 | 4.6               |
| Incremental Scope Pending<br>Change Management | 0.0                  | 3.0                  | (3.0)             |
| RL-0040 – Total                                | 26.5                 | 24.8                 | 1.6               |

Numbers are rounded to the nearest \$0.1 million.

**Funds/Variance Analysis**

Project funding increased by \$2.9 million based upon MOD 513 – incremental funding and FY2016 additional work which added \$2.4 million in funds. In addition, the 500K transferred out of RL-0040 last month was transfer back into RL-0040.

**Critical Path Schedule**

Critical path analysis can be provided upon request.

**Baseline Change Requests**

None currently identified.

**MILESTONE STATUS**

Hanford Federal Facility Agreement and Consent Order (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/<br>Comment |
|-----------|--|-----------|-------------|---------------|--------------------|
| M-016-250 | Develop three-year rolling prioritized scheduled to implement waste site removal actions | 3/31/2016 |             | 3/31/2016     | Complete           |

|          |  |           |  |           |  |
|----------|--|-----------|--|-----------|--|
| M-037-11 | Complete Closure Requirements for 216-B-3 and 216-S-10 | 9/30/2016 |  | 9/30/2016 | At Risk (being renegotiated to September 20, 2021 as part of tentative agreement). |
|----------|--|-----------|--|-----------|--|

### SELF-PERFORMED WORK

The Section H.20 clause, entitled “Self-Performed Work,” is addressed in the Overview.

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

None currently identified.

# Section F

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



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

May 2016  
CHPRC-2016-05, Rev. 1  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

The project continued progress on the 165 KE Asbestos Abatement, which included setup on the NPE and installation of the glove bags on TSI piping in the boiler room. Continued AB waste site remediation; including receipt of in process sampling results (high end chromium and mercury), remediation of 100-K-116 to three foot depth, and verification sampling instructions pertaining to close-out of four waste sites.

## EMS Objectives and Target Status

None currently identified.

## TARGET ZERO PERFORMANCE

|                                      | Current Month | Rolling 12 Months | Comment  |
|--------------------------------------|---------------|-------------------|--|
| Days Away, Restricted or Transferred | 0             | 0                 | N/A  |
| Total Recordable Injuries            | 0             | 1                 | N/A  |
| First Aid Cases                      | 1             | 7                 | <ul style="list-style-type: none"> <li>5/9/2016 – While unloading stanchions, the employee set a stanchion down on the base of another stanchion causing it to sway and strike the left side of the face. (24004)</li> </ul> |

## KEY ACCOMPLISHMENTS

- 165 KE Asbestos Abatement:
  - Continue working setup on the NPE in the boiler room.
  - Continue installing glove bags on TSI piping in the boiler room.
- Area AB waste site remediation:
  - Conducted fourth round of in-process sampling on six waste sites; results came back high in chromium and mercury.
  - Began remediating 100-K-116; Remediated to -3ft, took samples they came back asbestos, waiting on environmental paperwork to proceed.
  - Continued close-out of four waste sites; work is ongoing on the verification sampling instructions.

## MAJOR ISSUES

None currently identified.

## RISK MANAGEMENT STATUS

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

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

-  Increased Confidence
-  No Change
-  Decreased Confidence

| Risk Title  | Unmitigated Risk Impacts  | Assessment  |   | Comments  |                      |         |   |                               |     |     |
|---|---|---|---|---|----------------------|---------|---|-------------------------------|-----|-----|
|   |   | Month   | Trend   |   |                      |         |   |                               |     |     |
| <b>RL-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 <i>May</i> . |   |   |   |   |                      |         |   |                               |     |     |
| <b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)  |   |   |   |   |                      |         |   |                               |     |     |
| No realized risks for the month of <i>May</i> .   |   |   |   |   |                      |         |   |                               |     |     |
| <b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)                                 |   |   |   |   |                      |         |   |                               |     |     |
| No critical risks identified in the month of <i>May</i> .   |   |   |   |   |                      |         |   |                               |     |     |
| <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)   |   |   |   |   |                      |         |   |                               |     |     |
| KBC-002:<br>Subcontract Change<br>Orders/Claims   | Subcontracts for D4, soil remediation, and other field support services require revision based on discovery of changed conditions or completion requirements resulting in cost impacts and schedule delays.<br><br><b>Risk Handling Strategy:</b> Accept<br><br><b>Probability:</b> Low (10% to 25%)<br><b>Worst Case Impacts:</b> \$1.5 million, 66 days |  |  | <b>Risk Trigger Metric:</b><br>Field condition changes, including but not limited to, the amount of waste containers provided for soil remediation on a daily basis. Additional field changes include the need to excavate a greater amount of soil than planned to complete remediation. <table border="1" style="width: 100%; margin-top: 10px;"> <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>RL approved \$7 Million and authorized \$5 Million in funding for 100 Area remediation. Funding will be used for AB Waste Site soil remediation and 100K Area asbestos site cleanup. A letter from CHPRC to RL describing "Impacts Due to Differing Site Conditions for 100K Area Waste Sites" was submitted to RL requesting funds and tonnage beyond current contract values to complete AB Waste Site remediation.<br>Due to competing priorities at RL-0011 and RL-0040, craft personnel numbers are not constant. Project expects to replace insulators being re-assigned to RL-0011 in July, creating higher than anticipated costs for training for newly hired craft.<br>The delivery of ERDF containers was sufficient to achieve planned production rates for waste site remediation. | 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 <i>May</i> .   |   |   |   |   |                      |         |   |                               |     |     |

## 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  | 3.3                                      | 5.2                                      | 3.5                                    | 1.9                          | 59.0%                       | 1.8                      | 34.0%                   |

Numbers are rounded to the nearest \$0.1 million

#### CM Schedule Performance (+\$1.9M/+59.0%)

The current month favorable schedule variance is primarily due to the accelerated performance of AB Waste Site remediation work scope. This scope is planned in FY2018 but being performed in FY2016 as funding permits.

#### CM Cost Performance (+\$1.8M/+34.0%)

The current month cost variance is partially the result of implementing BCRs that added BCWS to the PMB for RCCC scope. Implementation of the BCRs allowed BCWP to finally be earned for scope that was authorized (and actual costs realized) several months earlier. This resulted in significantly greater amount of BCWP than ACWP in the current month. In addition, the current month cost variance also reflects efficiencies in AB subcontract costs resulting from schedule compression (less subcontract overhead costs) than planned.

## 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  | 330.3                                    | 336.4                                    | 305.4                                  | 6.0                          | 1.8%                        | 31.0                     | 9.2%                    | 408.2                            | 376.0                              | 32.2                               |

Numbers are rounded to the nearest \$0.1 million

#### CTD Schedule Performance (+\$6.0M/+1.8%)

The schedule variance is within reporting thresholds.

#### CTD Cost Performance (+\$31.0M/+9.2%)

The positive cost variance is primarily the result of prior year activity that have been previously reported and Confirmatory Sampling No Action (CSNA) waste sites that were completed 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.

#### Variance at Completion (+\$32.2M/+7.9%)

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 | FY2016            |                   | Spend Variance |
|---|-------------------|-------------------|----------------|
|   | Projected Funding | Spending Forecast |                |
| Spending Forecast   | 28.7              | 28.8              | (0.1)          |
| Incremental Scope Pending<br>Change Management              | 0                 | 10.1              | (10.1)         |
| RL-0041 - Total   | 28.7              | 38.8              | (10.2)         |

Numbers are rounded to the nearest \$0.1 million.

### Funds/Variance Analysis:

The RL-0041 project funding increased by \$4.5 million in May for Area AB Waste Site Remediation based upon contract modification 513, incremental funding and FY2016 additional work. The FYSF decreased by \$3.2 million primarily due to the projected ERDF FY2016 passback.

### Critical Path Schedule

Critical Path Analysis can be provided upon request.

### Baseline Change Requests

BCR-041-16-016R0, CO #304, 324 Min Safe Scope, Schedule and Budget Additions

BCR-041C-16-012R0, PBS RL-0041 Undistributed Budget Adjustments May 2016

BCR-041C-16-015R0, CO #304 Support Initiation of Transition of RCC Scope Activities to PRC

BCR-041C-16-017R0, CO #304 Support Initiation of Transition of River Corridor Contract Scope Activities to 300-296 Waste Sites

BCRA-PRC-16-042R0, HPIC Updates May 2016

## MILESTONE STATUS

None currently identified.

## SELF-PERFORMED WORK

The Section H.20 clause, entitled “Self-Performed Work,” is addressed in the Overview.

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

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)

May 2016  
CHPRC-2016-05, Rev. 1  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

The Fast Flux Test Facility (FFTF) is being maintained 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

- Completed all weekly and monthly maintenance/inspections with the 400 Area Water System.
- Completed annual Fire Systems testing at 4703.
- Eliminated Satellite Accumulation Area at 4802.
- Completed:
  - o One PM activity.
  - o Five operational surveillances.
  - o Five radiological surveillances.

## MAJOR ISSUES

None currently identified.

## RISK MANAGEMENT STATUS

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

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

-  Increased Confidence
-  No Change
-  Decreased Confidence

| Risk Title  | Unmitigated Risk Impacts | Assessment |       | Comments |
|---|--------------------------|------------|-------|----------|
|   |                          | Month      | Trend |          |
| <b>RL-0042/WBS-042</b>  |                          |            |       |          |
| <b>Explanation of major changes to the project monthly spotlight chart:</b>   |                          |            |       |          |
| No major changes to the risk profile for the month of <i>May</i> .  |                          |            |       |          |
| <b>Realized Risks</b> (Risks that are currently impacting project cost/schedule)  |                          |            |       |          |
| No realized risks for the month of <i>May</i> .   |                          |            |       |          |
| <b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed) |                          |            |       |          |
| No critical risks identified in the month of <i>May</i> .   |                          |            |       |          |
| <b>High Risk Threat Value</b> (Recoverable slip to enforceable or incentivized milestone)                                   |                          |            |       |          |
| No high threat value risks identified in the month of <i>May</i> .  |                          |            |       |          |
| <b>Unassigned Risks</b> (Pending ownership of identified risks/opportunities)   |                          |            |       |          |
| No unassigned risks identified in the month of <i>May</i> .   |                          |            |       |          |

## 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)                        | -2.2%                       | 0.0                      | 23.7%                   |

Numbers are rounded to the nearest \$0.1M

**CM Schedule Performance: (-\$0.0M/-2.2%)**

The schedule variance is within reporting thresholds.

**CM Cost Performance: (+\$0.0M/+23.7%)**

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                   | 21.4                                     | 21.4                                     | 17.5                                   | 0.0                          | 0.1%                        | 4.0                      | 18.5%                   | 26.5                             | 22.9                               | 3.5                                |

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 (+\$4.0M/+18.5%)

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

### Variance at Completion (+\$3.5M/+13.4%)

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                        | FY2016               |                      |                   |
|--|----------------------|----------------------|-------------------|
|  | Projected<br>Funding | Spending<br>Forecast | Spend<br>Variance |
| Spending Forecast                              | 3.2                  | 1.9                  | 1.3               |
| Incremental Scope Pending<br>Change Management | 0                    | 0                    | 0                 |
| RL-0042 – Total                                | 3.2                  | 1.9                  | 1.3               |

Numbers are rounded to the nearest \$0.1 million

### Funds Analysis

Projected Funding remains unchanged from last month. The FYSF also remains unchanged.

### 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.

### Baseline Change Requests

None currently identified.

## MILESTONE STATUS

None currently identified.

## SELF-PERFORMED WORK

The Section H.20 clause, entitled “Self-Performed Work,” is addressed in the Overview.

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

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



May 2016  
CHPRC-2016-05, Rev. 1  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

CLASSIFICATION (When Filled In)

| CONTRACT PERFORMANCE REPORT                        |                    |                                 |                                |   |          |                                 |                    |   |               |  |                           |                                      |             | PENDING UPDATE TO                           |                |                               |            |           |  |                  |  |         |  |
|--|--------------------|---------------------------------|--------------------------------|---|----------|---------------------------------|--------------------|---|---------------|--|---------------------------|--------------------------------------|-------------|---|----------------|-------------------------------|------------|-----------|--|------------------|--|---------|--|
| FORMAT 1 - WORK BREAKDOWN STRUCTURE                |                    |                                 |                                |   |          |                                 |                    |   |               |  |                           |                                      |             | OMB No. 0704-0188                           |                |                               |            |           |  |                  |  |         |  |
| 1. CONTRACTOR                                      |                    |                                 |                                |   |          |                                 |                    |   |               |  |                           |                                      |             | 2. CONTRACT                                 |                |                               | 3. PROGRAM |           |  | 4. REPORT PERIOD |  |         |  |
| 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 / 04 / 25 |             |   |                |                               |            |           |  |                  |  |         |  |
| b. LOCATION (Address and ZIP Code)<br>Richland, WA |                    |                                 |                                | b. NUMBER<br>RL14788                                    |          |                                 |                    | b. PHASE  |               |  |                           | b. TO (YYYYMMDD)<br>2016 / 05 / 22   |             |   |                |                               |            |           |  |                  |  |         |  |
| c. TYPE<br>CPAF                                    |                    |                                 |                                | d. SHARE RATIO  |          |                                 |                    | c. EVMS ACCEPTANCE<br>NO <input type="checkbox"/> X <input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18 |               |  |                           |                                      |             |   |                |                               |            |           |  |                  |  |         |  |
| 5. CONTRACT DATA                                   |                    |                                 |                                |   |          |                                 |                    |   |               |  |                           |                                      |             |   |                |                               |            |           |  |                  |  |         |  |
| a. QUANTITY<br>1                                   |                    | b. NEGOTIATED COST<br>5,561,895 |                                | c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK<br>24,043 |          | d. TARGET PROFIT/FEE<br>239,339 |                    | e. TARGET PRICE<br>5,801,234  |               | f. ESTIMATED PRICE<br>5,660,228                            |                           | g. CONTRACT CEILING<br>5,801,234     |             | h. ESTIMATED CONTRACT CEILING<br>5,660,228  |                | i. DATE OF OTB/OTS (YYYYMMDD) |            |           |  |                  |  |         |  |
| 6. ESTIMATED COST AT COMPLETION                    |                    |                                 |                                |   |          |                                 |                    |   |               |  |                           |                                      |             |   |                |                               |            |           |  |                  |  |         |  |
|  |                    |                                 |                                | MANAGEMENT ESTIMATE AT COMPLETION (1)                   |          | CONTRACT BUDGET BASE (2)        |                    | VARIANCE (3)  |               | 7. AUTHORIZED CONTRACTOR REPRESENTATIVE                    |                           |                                      |             |   |                |                               |            |           |  |                  |  |         |  |
|  |                    |                                 |                                | 5,357,317   |          |                                 |                    |   |               | a. NAME (Last, First, Middle Initial)<br>Dickerson, Kala K |                           |                                      |             | b. TITLE<br>Prime Contract Manager          |                |                               |            |           |  |                  |  |         |  |
| a. BEST CASE                                       |                    |                                 |                                | 5,434,118   |          |                                 |                    |   |               | c. SIGNATURE   |                           |                                      |             | d. DATE SIGNED (YYYYMMDD)<br>2016 / 05 / 22 |                |                               |            |           |  |                  |  |         |  |
| b. WORST CASE                                      |                    |                                 |                                | 5,420,888   |          | 5,585,938                       |                    | 165,050   |               |  |                           |                                      |             |   |                |                               |            |           |  |                  |  |         |  |
| c. MOST LIKELY                                     |                    |                                 |                                |   |          |                                 |                    |   |               |  |                           |                                      |             |   |                |                               |            |           |  |                  |  |         |  |
| 8. PERFORMANCE DATA                                |                    |                                 |                                |   |          |                                 |                    |   |               |  |                           |                                      |             |   |                |                               |            |           |  |                  |  |         |  |
| CAPN.PBS<br><br>ITEM<br>(1)                        | CURRENT PERIOD     |                                 |                                |   |          | CUMULATIVE TO DATE              |                    |   |               |  | REPROGRAMMING ADJUSTMENTS |                                      |             | AT COMPLETION                               |                |                               |            |           |  |                  |  |         |  |
|  | BUDGETED COST      |                                 | ACTUAL COST WORK PERFORMED (4) | VARIANCE  |          | BUDGETED COST                   |                    | ACTUAL COST WORK PERFORMED (9)  | VARIANCE      |  | COST VARIANCE (12a)       | SCHEDULE VARIANCE (12b)              | BUDGET (13) | BUDGETED (14)                               | ESTIMATED (15) | VARIANCE (16)                 |            |           |  |                  |  |         |  |
|  | WORK SCHEDULED (2) | WORK PERFORMED (3)              |                                | SCHEDULE (5)  | COST (6) | WORK SCHEDULED (7)              | WORK PERFORMED (8) |   | SCHEDULE (10) | COST (11)  |                           |                                      |             |   |                |                               |            |           |  |                  |  |         |  |
| RL-0011 Nuclear Mat Stab & Disp PFP                | 9,441              | 5,674                           | 7,952                          | (3,767)   | (2,278)  | 938,061                         | 890,636            | 905,152   | (47,425)      | (14,515)   | 0                         | 0                                    | 0           | 978,938                                     | 1,030,316      | -51,379                       |            |           |  |                  |  |         |  |
| RL-0012 SNF Stabilization & Disp                   | 24,847             | 26,230                          | 5,568                          | 1,382   | 20,661   | 591,941                         | 594,973            | 573,566   | 3,032         | 21,407   | 0                         | 0                                    | 0           | 741,572                                     | 717,484        | 24,088                        |            |           |  |                  |  |         |  |
| RL-0013 Solid Waste Stab & Disp                    | 7,661              | 7,255                           | 7,816                          | (406)   | (561)    | 1,053,365                       | 1,052,230          | 987,215   | (1,135)       | 65,014   | 0                         | 0                                    | 0           | 1,332,665                                   | 1,248,855      | 83,810                        |            |           |  |                  |  |         |  |
| RL-0030 Soil & Water Rem-Grndwtr/Vadose            | 12,413             | 10,977                          | 9,664                          | (1,436)   | 1,313    | 1,240,258                       | 1,225,423          | 1,199,743   | (14,835)      | 25,681   | 0                         | 0                                    | 0           | 1,563,901                                   | 1,524,977      | 38,924                        |            |           |  |                  |  |         |  |
| RL-0040 Nuc Fac D&D - Remainder Hanfir             | 1,839              | 2,012                           | 2,331                          | 173   | (318)    | 416,519                         | 413,272            | 381,892   | (3,247)       | 31,380   | 0                         | 0                                    | 0           | 469,135                                     | 435,334        | 33,800                        |            |           |  |                  |  |         |  |
| RL-0041 Nuc Fac D&D - RC Closure Proj              | 3,289              | 5,231                           | 3,451                          | 1,941   | 1,780    | 330,328                         | 336,376            | 305,379   | 6,048         | 30,996   | 0                         | 0                                    | 0           | 405,893                                     | 373,665        | 32,228                        |            |           |  |                  |  |         |  |
| RL-0042 Nuc Fac D&D - FFTF Proj                    | 164                | 161                             | 123                            | (4)   | 38       | 21,410                          | 21,429             | 17,458  | 19            | 3,971  | 0                         | 0                                    | 0           | 26,468                                      | 22,934         | 3,534                         |            |           |  |                  |  |         |  |
| 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  | 59,655             | 57,539                          | 36,905                         | (2,116)   | 20,634   | 4,591,882                       | 4,534,340          | 4,370,405   | (57,543)      | 163,935  | 0                         | 0                                    | 0           | 5,522,322                                   | 5,357,317      | 165,005                       |            |           |  |                  |  |         |  |
| f. MANAGEMENT RESERVE                              |                    |                                 |                                |   |          |                                 |                    |   |               |  |                           |                                      |             |   |                |                               |            |           |  |                  |  |         |  |
| g. TOTAL   | 59,655             | 57,539                          | 36,905                         | (2,116)   | 20,634   | 4,591,882                       | 4,534,340          | 4,370,405   | (57,543)      | 163,935  | 0                         | 0                                    | 0           | 5,585,894                                   |                |                               |            |           |  |                  |  |         |  |
| 9. RECONCILIATION TO CONTRACT BUDGET BASELINE      |                    |                                 |                                |   |          |                                 |                    |   |               |  |                           |                                      |             |   |                |                               |            |           |  |                  |  |         |  |
| a. VARIANCE ADJUSTMENT                             |                    |                                 |                                |   |          |                                 |                    |   |               |  |                           |                                      |             |   |                |                               |            |           |  |                  |  |         |  |
| b. TOTAL CONTRACT VARIANCE                         |                    |                                 |                                |   |          |                                 |                    |   |               |  |                           |                                      |             | (57,543)                                    |                | 163,935                       |            | 5,585,894 |  | 5,357,317        |  | 228,576 |  |

CLASSIFICATION (When Filled In)

CLASSIFICATION (When Filled In)

| CONTRACT PERFORMANCE REPORT<br>FORMAT 2 - ORGANIZATIONAL CATEGORIES |                    |                    |   |              |                |                    |   |                         |               |           |  |                         | DOLLARS IN Dollars |               | PENDING UPDATE TO<br>OMB No. 0704-0188 |               |
|---|--------------------|--------------------|---|--------------|----------------|--------------------|---|-------------------------|---------------|-----------|--|-------------------------|--------------------|---------------|--|---------------|
| 1. CONTRACTOR   |                    |                    | 2. CONTRACT                             |              |                |                    | 3. PROGRAM  |                         |               |           | 4. REPORT PERIOD                         |                         |                    |               |  |               |
| 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 / 04 / 25 |                         |                    |               |  |               |
| b. LOCATION (Address and ZIP Code)<br>Richland, WA                  |                    |                    | b. NUMBER<br>RL14788                    |              |                |                    | b. PHASE  |                         |               |           | b. TO (YYYYMMDD)<br><br>2016 / 05 / 22   |                         |                    |               |  |               |
|   |                    |                    | c. TYPE<br>CPAF                         |              | d. SHARE RATIO |                    | c. EVMS ACCEPTANCE<br><input checked="" type="checkbox"/> YES (YYYYMMDD) 2009 / 09 / 18 |                         |               |           |  |                         |                    |               |  |               |
| 5. PERFORMANCE DATA   |                    |                    |   |              |                |                    |   |                         |               |           |  |                         |                    |               |  |               |
| WBS.Resp Org Group<br>WBS.Resp Org Code<br><br>ITEM<br>(1)          | CURRENT PERIOD     |                    |   |              |                | CUMULATIVE TO DATE |   |                         |               |           | REPROGRAMMING ADJUSTMENTS                |                         |                    | AT COMPLETION |  |               |
|   | BUDGETED COST      |                    | ACTUAL                                  | VARIANCE     |                | BUDGETED COST      |   | ACTUAL                  | VARIANCE      |           | COST VARIANCE (12a)                      | SCHEDULE VARIANCE (12b) | BUDGET (13)        | BUDGETED (14) | ESTIMATED (15)                         | VARIANCE (16) |
|   | WORK SCHEDULED (2) | WORK PERFORMED (3) | COST WORK PERFORMED (4)                 | SCHEDULE (5) | COST (6)       | WORK SCHEDULED (7) | WORK PERFORMED (8)  | COST WORK PERFORMED (9) | SCHEDULE (10) | COST (11) |  |                         |                    |               |  |               |
| 34 - Env Program & Strategic Plng                                   | 602                | 624                | 562                                     | 22           | 63             | 61,755             | 61,683  | 57,399                  | (73)          | 4,284     | 0  | 0                       | 0                  | 82,402        | 80,308                                 | 2,093         |
| 35 - Business Services  | 0                  | 0                  | 0                                       | 0            | 0              | 472,524            | 472,524   | 448,488                 | 0             | 24,036    | 0  | 0                       | 0                  | 472,524       | 448,488                                | 24,036        |
| 36 - Prime Contract & Proj Integr                                   | 237                | 237                | 143                                     | 0            | 94             | 4,023              | 4,023   | 2,135                   | 0             | 1,887     | 0  | 0                       | 0                  | 8,426         | 6,226                                  | 2,200         |
| 3B - PFP Closure Project  | 9,388              | 5,621              | 7,942                                   | (3,767)      | (2,321)        | 851,045            | 803,621   | 825,840                 | (47,425)      | (22,219)  | 0  | 0                       | 0                  | 891,679       | 950,938                                | (59,260)      |
| 3C - Waste & Fuels Management Project                               | 8,353              | 7,905              | 8,214                                   | (448)        | (310)          | 945,911            | 944,734   | 879,667                 | (1,177)       | 65,066    | 0  | 0                       | 0                  | 1,227,853     | 1,144,367                              | 83,486        |
| 3D - Soil & Groundwater Remediation                                 | 11,752             | 10,294             | 9,046                                   | (1,458)      | 1,248          | 1,079,164          | 1,064,402   | 1,036,731               | (14,762)      | 27,671    | 0  | 0                       | 0                  | 1,380,710     | 1,337,648                              | 43,063        |
| 3G - K Basin Oper & Plateau Remediation Project                     | 29,323             | 32,858             | 10,998                                  | 3,536        | 21,860         | 1,177,460          | 1,183,354   | 1,120,144               | 5,893         | 63,210    | 0  | 0                       | 0                  | 1,454,976     | 1,385,589                              | 69,387        |
| b. COST OF MONEY  | 0                  | 0                  | 0                                       | 0            | 0              | 0                  | 0   | 0                       | 0             | 0         | 0  | 0                       | 0                  | 3,752         | 3,752                                  | 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)                      | 59,655             | 57,539             | 36,905                                  | (2,116)      | 20,634         | 4,591,882          | 4,534,340   | 4,370,405               | (57,543)      | 163,935   | 0  | 0                       | 0                  | 5,522,322     | 5,357,317                              | 165,005       |
| f. MANAGEMENT RESERVE   |                    |                    |   |              |                |                    |   |                         |               |           |  |                         |                    | 63,571        |  |               |
| g. TOTAL  | 59,655             | 57,539             | 36,905                                  | (2,116)      | 20,634         | 4,591,882          | 4,534,340   | 4,370,405               | (57,543)      | 163,935   | 0  | 0                       | 0                  | 5,585,894     |  |               |

| CONTRACT PERFORMANCE REPORT  |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          | Form Approved        |  |
|--|-------------------------|-------------------------------|---------------|--|---------------|---|---------------|---|-----------------|--|--------------|--|--------------|-------------------------------|--------------------------|----------------------|--|
| FORMAT 3 - BASELINE  |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          | OMB No. 0704-0188    |  |
| DOLLARS IN THOUSANDS   |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| 1. CONTRACTOR<br>CH2M HILL Plateau Remediation Company<br>b. LOCATION:<br>Richland, WA   |                         |                               |               | 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 |                 |  |              | 4. REPORT PERIOD<br>a. FROM: 2016/04/25<br>b. TO: 2016/05/22 |              |                               |                          |                      |  |
| 5. CONTRACT DATA   |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| a. ORIGINAL NEGOTIATED COST<br>4,312,366   |                         |                               |               | b. NEGOTIATED CONTRACT CHANGE<br>\$1,249,529   |               | c. CURRENT NEGOTIATED COST (A + B)<br>\$5,561,895 |               | d. ESTIMATED COST AUTH UNPRICED WORK<br>\$24,043  |                 | e. CONTRACT BUDGET BASE (C + D)<br>\$5,585,938 |              | f. TOTAL ALLOCATED BUDGET<br>\$5,585,894                     |              | g. DIFFERENCE (E - F)<br>\$45 |                          |                      |  |
| 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  |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| BUDGETED COST FOR WORK SCHEDULED (NON - CUMULATIVE)  |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| SIX MONTH FORECAST   |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| ITEM<br>(1)  | BCWS CUM TO DATE<br>(2) | BCWS FOR REPORT PERIOD<br>(3) | +1            | +2   | +3            | +4  | +5            | +6  | FY09-13<br>(10) | FY14<br>(11)                                   | FY15<br>(12) | FY16<br>(13)   | FY17<br>(14) | FY18<br>(15)                  | UNDISTRIB BUDGET<br>(16) | TOTAL BUDGET<br>(17) |  |
|  |                         |                               | Jun-16<br>(4) | Jul-16<br>(5)  | Aug-16<br>(6) | Sep-16<br>(7)                                     | Oct-16<br>(8) | Nov-16<br>(9)   |                 |  |              |  |              |                               |                          |                      |  |
| a. PM BASELINE (BEGIN OF PERIOD)   |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| 4,532,227 33,488 29,687 39,955 31,163 43,923 34,329 32,651 3,391,477 391,653 471,323 455,991 414,918 357,209 6,856 5,489,426         |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| b. BASELINE CHANGES AUTH DURING REPORT PERIOD  |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| BCR-011C-16-006R0 - PFP CAP 2 EVM Type Change from LOE to Apportioned  |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| BCR-011-16-007R0 - MR Draw to Align Hotel Load with Ready for Demo Activities  |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| BCR-012C-16-018R0 - Establish SRP Project Baseline for Project Reporting   |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| BCR-012C-16-019R0 - SRP CAP Management Reserve Draw for NE Corner Construction and Annex Facility Maintenance                        |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| BCR-013-16-022R0 - CSB Stack Flow Testing & 90 Mil Venting Deferral  |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| BCR-013-16-023R0 - Realignment of Select M-091 Waste Management Milestones   |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| BCR-030-16-030R0 - Cultural Resource Review Realized Risk – 100-NR-2 P&T D&D   |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| BCR-030-16-035R0 - Revise Method of Performance for Composite Analysis Workshop Activities   |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| BCR-041-16-012R0 - PBS RL-041 Undistributed Budget May 2016  |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| BCR-041C-16-015R0 - CO #304 Support Initiation of Transition of River Corridor Contract Scope Activities to PRC                      |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| BCR-041-16-016R0 - CO #304 - 324 Min Safe Scope, Schedule and Budget Additions   |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| BCR-041C-16-017R0 - CO #304 Support Initiation of Transition of River Corridor Contract Scope Activities to PRC – 300-296 Waste Site |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| c. PM BASELINE (END OF PERIOD)   |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| 4,591,883 59,655 34,102 41,006 31,852 44,493 34,570 32,726 3,391,477 391,653 471,323 488,884 414,754 360,480 3,752 5,522,322         |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| 7. MANAGEMENT RESERVE  |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| 63,571   |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| 8. TOTAL   |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |
| 5,585,894  |                         |                               |               |  |               |   |               |   |                 |  |              |  |              |                               |                          |                      |  |

| CLASSIFICATION (When Filled In)                     |  |   |   |                       |                       |   |                       |                       |  |                |                                    |        |         |
|---|--|---|---|-----------------------|-----------------------|---|-----------------------|-----------------------|--|----------------|------------------------------------|--------|---------|
| CONTRACT PERFORMANCE REPORT<br>FORMAT 4 - STAFFING  |  |   |   |                       |                       |   |                       |                       |  |                | FORM APPROVED<br>OMB No. 0704-0188 |        |         |
| 1. CONTRACTOR                                       |  |   | 2. CONTRACT   |                       |                       | 3. PROGRAM                              |                       |                       | 4. REPORT PERIOD                         |                |                                    |        |         |
| 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 / 04 / 25     |                |                                    |        |         |
| b. LOCATION (Address and ZIP Code)<br>Richland, WA  |  |   | b. NUMBER<br>RL14788                                |                       |                       | b. PHASE                                |                       |                       | b. TO (YYYYMMDD)<br>2016 / 05 / 22       |                |                                    |        |         |
|   |  |   | c. TYPE<br>CPAF                                     |                       |                       | d. SHARE RATIO                          |                       |                       | c. EVMS ACCEPTANCE<br>YES 2009 / 09 / 18 |                |                                    |        |         |
| 5. PERFORMANCE DATA                                 |  |   |   |                       |                       |   |                       |                       |  |                |                                    |        |         |
| Organizational Breakdown Structure (OBS)<br><br>(1) | ACTUAL<br>CURRENT<br>PERIOD<br><br>(2) | ACTUAL<br>END OF<br>CURRENT PERIOD<br>(Cumulative)<br>(3) | FORECAST (Non-Cumulative)                           |                       |                       |   |                       |                       |  |                | AT COMPLETION<br><br>(13)          |        |         |
|   |  |   | SIX MONTH FORECAST BY MONTH (Enter names of months) |                       |                       |   |                       |                       |  |                |                                    |        |         |
|   |  |   | +1<br>JUN 2016<br>(4)                               | +2<br>JUL 2016<br>(5) | +3<br>AUG 2016<br>(6) | +4<br>SEP 2016<br>(7)                   | +5<br>OCT 2016<br>(8) | +6<br>NOV 2016<br>(9) | REM FY2017<br>(11)                       | FY2018<br>(12) |                                    |        |         |
| 300 - Office of the President                       | 15                                     | 602   | 6   | 5                     | 5                     | 5                                       | 5                     | 5                     | 5  | 5              | 52                                 | 63     | 750     |
| 303 - Internal Audit                                | 5                                      | 401   | 5   | 5                     | 5                     | 5                                       | 5                     | 5                     | 5  | 5              | 50                                 | 60     | 541     |
| 304 - General Counsel                               | 3                                      | 374   | 4   | 4                     | 4                     | 4                                       | 4                     | 5                     | 5  | 5              | 50                                 | 60     | 510     |
| 31 - Communications                                 | 9                                      | 882   | 9   | 9                     | 9                     | 9                                       | 9                     | 9                     | 9  | 9              | 90                                 | 108    | 1,134   |
| 32 - Safety Health Security & Quality               | 54                                     | 6,302   | 64  | 65                    | 65                    | 64                                      | 65                    | 65                    | 65                                       | 65             | 644                                | 775    | 8,108   |
| 34 - Env Program & Strategic Plng                   | 42                                     | 4,168   | 41  | 40                    | 40                    | 39                                      | 39                    | 51                    | 51                                       | 51             | 503                                | 600    | 5,532   |
| 35 - Business Services                              | 56                                     | 6,700   | 63  | 65                    | 65                    | 63                                      | 63                    | 63                    | 63                                       | 63             | 632                                | 761    | 8,477   |
| 36 - Prime Contract & Proj Integr                   | 54                                     | 4,069   | 58  | 58                    | 58                    | 56                                      | 55                    | 55                    | 55                                       | 55             | 543                                | 643    | 5,594   |
| 38 - Project Technical Services                     | 32                                     | 5,062   | 40  | 42                    | 44                    | 43                                      | 43                    | 36                    | 36                                       | 36             | 360                                | 427    | 6,091   |
| 3B - PFP Closure Project                            | 343                                    | 43,975  | 389   | 392                   | 394                   | 392                                     | 392                   | 333                   | 322                                      | 322            | 1,321                              | 13     | 47,531  |
| 3C - Waste & Fuels Management Project               | 376                                    | 44,371  | 348   | 339                   | 337                   | 332                                     | 332                   | 286                   | 277                                      | 277            | 2,761                              | 3,483  | 52,534  |
| 3D - Soil & Groundwater Remediation                 | 303                                    | 31,452  | 294   | 294                   | 288                   | 271                                     | 271                   | 306                   | 299                                      | 299            | 3,012                              | 3,810  | 40,027  |
| 3G - KBO&PR Project                                 | 333                                    | 42,056  | 412   | 371                   | 357                   | 324                                     | 324                   | 336                   | 332                                      | 332            | 3,214                              | 3,282  | 50,684  |
| Grand Totals  | 1,625                                  | 190,413   | 1,732   | 1,688                 | 1,673                 | 1,608                                   | 1,554                 | 1,524                 | 1,524                                    | 1,524          | 13,234                             | 14,086 | 227,511 |

**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 |      |      |
| 1. CONTRACTOR  |           | 2. CONTRACT                             |                | 3. PROGRAM                                   |         | 4. REPORT PERIOD                       |                                    |      |      |
| a. NAME<br>CH2M HILL<br>Plateau Remediation Company  |           | a. NAME<br>Plateau Remediation Contract |                | a. NAME<br>Plateau Remediation Contract      |         | a. FROM (YYYY/MM/DD)<br><br>2016/04/25 |                                    |      |      |
| b. LOCATION (Address and ZIP Code)<br><br>Richland, WA 99354   |           | b. NUMBER<br>DE-AC06-08RL14788          |                | b. PHASE<br>Base                             |         | b. TO (YYYY/MM/DD)<br><br>2016/05/22   |                                    |      |      |
|  |           | c. TYPE<br>CPAF                         | d. SHARE RATIO | c. EVMS ACCEPTANCE<br>2009/09/18<br>NO YES X |         |  |                                    |      |      |
|  | BCWS      | BCWP                                    | ACWP           | SV in \$                                     | SV in % | CV in \$                               | CV %                               | SPI  | CPI  |
| Current:   | 59,655    | 57,539                                  | 36,905         | (2,116)                                      | -3.5%   | 20,634                                 | 35.9%                              | 0.96 | 1.56 |
| Cumulative:  | 4,591,883 | 4,534,340                               | 4,370,405      | (57,543)                                     | -1.3%   | 163,935                                | 3.6%                               | 0.99 | 1.04 |
|  | BAC       | EAC                                     | VAC in \$      | VAC in %                                     | TCPI    |  |                                    |      |      |
| At Complete:   | 5,522,322 | 5,357,317                               | 165,005        | 3.0%   | 1.00    |  |                                    |      |      |
| <b>Explanation of Variance/Description of Problem:</b>   |           |   |                |  |         |  |                                    |      |      |
| <p><b>Current Period Schedule Variance:</b> The variance is within reporting thresholds.</p> <p><b>Current Period Cost Variance:</b> The current month favorable cost variance is due to RL-0012 transitioning the Sludge Retrieval Project (STP) to a DOE 413.3 Line Item Capital Asset project. BCR-012C-018R0 <i>Establish SRP Project Baseline for Project Reporting</i> was processed in May to re-align scope prior to implementation of the Capital Asset project. Also contributing to the favorable cost variance is RL-0041 implementation of BCR-041C-16-15R0 #304 <i>Support Initiation of Transition of River Corridor Contract Scope Activities to PRC</i> and BCR-041C-16-17R0 CO #304, <i>Support Initiation of Transition of River Corridor Contract Scope Activities to PRC-300-296 Waste Site</i> that added BCWS to the PMB for River Corridor Closure Contract (RCCC) scope. The favorable variances for RL-0012 and RL-0041 are partially offset by RL-0011 due to a point adjustment as a result of implementation of BCR-011C-16-006R0 <i>PPF CAP 2 Project EVM Type Change from LOE to Apportioned</i>.</p> <p><b>Cumulative Schedule Variance:</b> The cumulative unfavorable schedule variance is primarily due to RL-0011 progress on discrete D&amp;D work scope (apportioned). Re-sequencing of D&amp;D discrete work to align with availability of D&amp;D workers caused 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.</p> <p><b>Cumulative Cost Variance:</b> The cumulative favorable cost variance is primarily due to RL-0013 continued implementation of planned efficiencies, which include tagging out unnecessary equipment, reducing the number and size of RMAs, removing waste inventories, streamlining procedures and processes, optimizing engineering and support resources, and reducing the number and frequency of PMs.</p> |           |   |                |  |         |  |                                    |      |      |
| <b>Impact:</b>   |           |   |                |  |         |  |                                    |      |      |
| <p><b>Current Period Schedule:</b> The lifecycle EAC has been updated. No other significant impacts overall.</p> <p><b>Current Period Cost:</b> No significant impact overall, the lifecycle EAC has been updated.</p> <p><b>Cumulative Schedule:</b> Given the schedule impacts to date and the remaining time to recover for RL-0011, stop work, chemical issues, and radiological events, the project completion date is now May 24, 2017 which is reflective of removing 13 gloveboxes from 234-5Z during demolition preparations, demolition and stabilization and demobilization efforts. Reduced funding, workforce restructuring, chemical mitigation, delayed ramp-up of 242-Z field work teams, and PRF crane impacts for D&amp;D field work push completion of follow-on work, impacting completion of TPA Milestone M-083-00A.</p> <p><b>Cumulative Cost:</b> The cumulative cost impacts are expected to continue for RL-0013 through the period of performance as long as the planned efficiencies can be maintained. The cumulative favorable cost variance for RL-0041 work scope were completed during ARRA period in less time and at lower than planned costs.</p>  |           |   |                |  |         |  |                                    |      |      |
| <b>Corrective Action:</b>  |           |   |                |  |         |  |                                    |      |      |
| <p><b>Current Period Schedule:</b> No Corrective Actions are needed at this time; within threshold.</p> <p><b>Current Period Cost:</b> EAC has been adjusted accordingly. Point adjustment in the period include BCR lifecycle adjustments.</p> <p><b>Cumulative Schedule:</b> Upon completion of work in 234-5Z RMA line and backside rooms field work, resources have transitioned to begin work on process vacuum line removal in 234-5Z. The project is continuing to plan and implement a drain line grouting concept that will provide acceleration of efficiencies to remove the drain lines in the basement of 234-5Z.</p> <p><b>Cumulative Cost:</b> N/A</p>  |           |   |                |  |         |  |                                    |      |      |
| <b>Monthly Summary</b> (to include technical causes of VARs, Impacts, and Corrective Action(s):  |           |   |                |  |         |  |                                    |      |      |
| <p>CHPRC continues to track completion of contract scope within budget and is currently projecting a Variance at Completion of \$165.0 million with \$63.6 million of Management Reserve (MR) for a total positive variance of \$228.6 million. For May, the project was 3.5 percent behind schedule and 35.9 percent under planned cost. CTD, the project was 1.3 percent behind schedule and 3.6 percent under planned cost.</p> <p>There were two significant BCRs in the period that impacted the PMB; BCR-011-16-007R0 – <i>MR Draw to Align Hotel Load with Ready for Demo Activities</i> and BCR-012C-018R0 <i>Establish SRP Project Baseline for Project Reporting</i>. Additionally, revisions were made to Undistributed Budget (UB) via BCR-041-16-012R0 - <i>PBS RL-0041 Undistributed Budget May 2016</i> (details of changes listed below).</p>  |           |   |                |  |         |  |                                    |      |      |

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

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

Variance in Performance BAC and EAC: The variance at complete (VAC) between the BAC and EAC this month is a +\$165.0 million, +3.0% and is within reporting thresholds.

**Format 1 and 3 Contract Data: Contract Price Adjustments**

|   |                                |                  |
|---|--------------------------------|------------------|
| CPs - In Process  |                                |                  |
|   | Total Authorized Unpriced Work | \$24, 043        |
| Approved Adjustments to Contract Price (not reflected in B.4-1 Table) |                                |                  |
|   | Total Negotiated Cost Changes  | -                |
|   | <b>Grand Total Adjustments</b> | <b>\$24, 043</b> |

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

**Undistributed Budget Activity**

| BCR Number       | Title  | Fiscal Year | UB         |
|------------------|--|-------------|------------|
| BCR-041-16-012R0 | <i>PBS RL-0041 Undistributed Budget May 2016</i> | 2015 - 2018 | \$ -3,104K |

The Undistributed Budget decreased by \$3,104K for an overall increase to the PMB of \$32,896K during May.

**Management Reserve Activity**

| BCR Number        | Title  | Fiscal Year | MR          |
|-------------------|--|-------------|-------------|
| BCR-011-16-007R0  | <i>MR Draw to Align Hotel Load with Ready for Demo Activities</i>                                | 2015 - 2018 | \$ -7,108K  |
| BCR-012C-16-018R0 | <i>Establish SRP Project Baseline for Project Reporting</i>                                      | 2015 - 2018 | \$ -17,988K |
| BCR-012C-16-019R0 | <i>SRP CAP Management Reserve Draw for NE Corner Construction and Annex Facility Maintenance</i> | 2015 - 2018 | \$ -3,374K  |
| BCR-030-16-030R0  | Cultural Resource Review Realized Risk - 100-NR-2 P&T D&D  | 2015 - 2018 | \$-427K     |

Overall, there was a decrease of \$28,896K to Management Reserve (MR) during May.

**Fee Activity**

| BCR Number | Title | Fiscal Year | Fee |
|------------|-------|-------------|-----|
| N/A        | N/A   | 2015 - 2018 | N/A |

Overall, there was no change to Fee during May.

**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>6/18/2016 | <b>Approved by:</b> | <b>Date:</b> |
|--|---------------------------|---------------------|--------------|

# 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

May 2016  
CHPRC-2016-05, Rev. 1  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

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

D. 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 CHPRC projects as well as central management of cross-cutting services.

### EMS Objectives and Target Status

| Objective #         | Objective  | Target   | Due Date | Status |
|---------------------|--|--|----------|--------|
| 16-EMS-ADMIN-OB1-T1 | Reduce energy intensity.   | Increase facility occupancy rates to greater than 82 percent by compressing occupancy and vacating underutilized facilities. Vacated/unoccupied facilities declared unusable and designated inactive placed in Care Taker System.          | 9/30/16  | 40%    |
| 16-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.  | 10/9/16* | 25%    |
| 16-EMS-ADMIN-OB3-T1 | Energy and natural resource conservation.  | Establish electronic signature system for contracts using Adobe Acrobat.   | 9/30/16  | 70%    |
| 16-EMS-PTS-OB1-T1   | Reduce the potential generation and release of toxic, hazardous, and non-regulated chemical materials to the environment, evaluate for compliance with universal waste and other recycling requirements, and identify opportunities for waste reduction. | Monitor and evaluate spill prevention program and existing techniques to reduce and/or eliminate spills to the environment by surveillances, on-going training.  | 9/30/16  | 66%    |
| 16-EMS-PTS-OB2-T1   | Increase chemical management oversight of subcontractors and PTS operations.   | Increase chemical management oversight of subcontracts, evaluate chemical procurement methods, identify expired chemicals, track, and properly dispose of expired chemicals. Perform quarterly assessment on chemical inventory locations. | 9/30/16  | 50%    |

\*This O&T cannot be closed out completely until after FY2016 ends. Progress will be at least 60 percent by July 31, 2016.

## 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             | 1                   | N/A     |
| First Aid<br>Cases                         | 0             | 7                   | N/A     |
| Near-Misses                                | 0             | 0                   | N/A     |

## KEY ACCOMPLISHMENTS

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

- SHS&Q activities provide support and technical services to all CHPRC projects and central management of crosscutting services. There were no injuries during the month of May.
  - Occupational Safety and Industrial Hygiene (OS&IH) accomplishments:
    - Continued support of site-wide standards committees and site-wide steering committees. DOE-0346, *Hanford Site Fall Protection Program*, is pending implementation of Revision 1A. DOE-0344, *Hanford Site Excavation, Trenching and Shoring Procedure*, is being routed for approval signatures; implementation pending. DOE-0352, *Hanford Site Respiratory Protection Program* is going through the revision process at this time.
    - Continued implementation of the Chronic Beryllium Disease Prevention Program (CBDPP) Revision 2A. Beryllium assessments have been completed on 1236 CHPRC facilities. Beryllium characterizations have been completed on 1199 CHPRC facilities.
    - Reviewing RCCC transition preliminary facilities transfer list Beryllium assessments.
    - Support to projects for Hazard Review Board.
    - Continued to provide support to the PFP for respiratory protection issues.
    - Continued support to projects on oversight of confined space work activities.
    - Support to projects on Fall Protection Work Permit (FPWP) reviews.
    - Support to projects on scaffolding program requirements.
    - Provided support for Globally Harmonized System and Chemical Management implementation across projects.
    - Provided training to Facility Chemical Custodians for Chemical Management Program.
    - Provided additional confined space training/briefings for KBO&PR, and PTS, and provided support to projects to approve additional competent/qualified personnel for DOE-0360 Revision 1, *Confined Space*.
    - Provided training and mentoring support to project OS&IH for ergonomic evaluation process.
    - Provided support to PFP, W&FMP, PTS, and KBO&PR for asbestos characterization activities.
    - Provided support to W&FMP in the development of FPWP for 324 Building Stack activities.
    - Managed CHPRC participation for 2016 Safety EXPO in May.

- o Radiological Control accomplishments:
  - Continued Survey Simple upgrade efforts with implementation at PFP.
  - Continued oversight at PFP for specific high hazard activities (242Z and PRF Canyon).
  - Supported WESF with radiological work planning resource.
  - Continued support for project Hazard Review Boards, In-Progress ALARA Reviews and causal evaluations.
  - Continued support of RCCC transition planning activities.
  - Reviewed and approved Technical Evaluations (TEs) for CPS&M BCCA Characterization and 100K Work Place Air Monitoring.
  - Provided External Dosimetry Investigation Report (EDIR) training to project personnel.
  - Completed SHS&Q-2016-WSA-17016, “Evaluate Improvement Opportunities at the Central Radiological Counting Facility (CRCF)” assessment.
  - Completed SHS&Q-2016-WSA-16525, “Personnel Exposure.”
  - Completed SHS&Q-2016-WSA-16527, “Radiological Records.”
- o Nuclear Operations Support & Compliance accomplishments:
  - Safety Basis documents and letters transmitted to RL include:
    - Letter, CHPRC-1601760, dated May 9, 2016, Transmittal of the CP-59674, Revision 0, *276-BA Hazard Categorization*.
    - Letter, CHPRC-1602056, dated May 9, 2016, *Transmittal of 2016 Annual Update of the Canister Storage Building and Unreviewed Safety Question Determination Summary*.
    - Letter, CHPRC-1601974, dated May 17, 2016, *Transmittal of the 2016 Annual Update of the 224-T Safety Basis and Unreviewed Safety Question Determination Summary*.
    - Letter, CHPRC-1602133, dated May 25, 2016, *Transmittal of the 2015 Annual Update of the 105-KW Basin Final Safety Analysis Report, HNF-SD-WM-SAR-062, the 105-KW Basin Technical Safety Requirements, HNF-SD-SNF-TSR-001, and the Unreviewed Safety Question Determination Summary*.
    - Letter, CHPRC-1601755, dated May 26, 2016, *Transmittal of CP-59591, Revision 0, Hazard Categorization for Plutonium –Uranium Extraction Facility Segments 203-A, 211-A, 214-A, and 271-AB*.
    - Letter, CHPRC-1502669.2, dated May 31, 2016, *Transmittal of the Annual Update to the Solid Waste Operations Complex Master Documented Safety Analysis, HNF-14741, Revision 11, the Technical Safety Requirements for the Solid Waste Operations Complex, HNF-15280. Revision 11, the T Plant Fire Hazards Analysis, HNF-59192, Revision 0, and the Solid Waste Operations Complex Fire Hazards Analysis, HNF-21239, Revision 6*.
  - Document approval received from RL:
    - Letter, 16-NSD-0040\_RL, dated May 26, 2016, *Approval of the 2016 Annual Update to HNF-11724, CH2M HILL Plateau Remediation Company (CHPRC) Safety Management Programs (SMP) for the U.S. Department of Energy Richland Operations Office (RL) Review and Approval*.
    - Letter, 16-NSD-0046\_RL, dated May 26, 2016, *Transmittal of PRC-PRO-NS-062, Revision 3, “Unreviewed Safety Question Process,” for the U.S. Department of Energy Richland Operations Office (RL) Review and Approval*.
  - Transportation Safety
    - Completed CHPRC-02918, *Retrieval Package W4BT11-0049, Internal Load Securement Plan*.
    - Completed *Test Plan for In-field Evaluation of the Gore-Tex Nuclear Filters*.

- o Contractor Assurance Regulatory Reporting (CARR) accomplishments:
  - 224 Condition Reports (CRs) were screened:
    - Two significant issue identified.
    - Six Adverse issue identified.
    - 118 Track until Fixed (TUF) issues identified.
    - 43 Trend Only (TO) items identified.
    - 51 Opportunity for Improvement (OFI) items identified.
    - Four Screened Out.
  - 213 CRs administratively closed.
  - 346 CR actions administratively closed.
  - Continued to provide full time Issues Management support to PFP.
  - Transmitted Notification ORPS report for EM-RL--CPRC-PFP-2016-0005, *Near Miss – Transportation of Pencil Tanks*.
  - Provided support and coordination for the Bi-Monthly a conference call with the DNFSB to discuss the PFP demolition planning and readiness assessment status.
  - Twelve documents were provided in response to DNFSB requests for information.
  - Provided support to the Bi-Monthly DNFSB Site Representative Meeting.
  - Began support/coordination for the upcoming DNFSB review of PFP.
  - Provided support and coordination of the monthly DNFSB/STP conference status call.
  - Submitted Noncompliance Tracking System report NTS-RL—CPRC-GPP-2016-0001, *Workers Receive Minor Electrical Shock*.
  - Provided Course 080983, *DOE Enforcement Program (PAAA/WSH) Overview Training*, to 13 employees.
  - Provided leadership to the Spring Regulatory and Enforcement Technical Subgroup meeting at the Nevada National Security Site DOE/NNSA Nevada Support Facility.
- o Performance Oversight, Assessment, and Quality Assurance accomplishments:
  - Conducted in-field activities for the 10 CFR 835, Subpart C, Standards for Internal and External Exposure, surveillance activity scheduled through July.
  - 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.
  - The Quality Systems organization completed 12 surveillances covering the areas of material and test control, Quality Assurance program implementation, environmental compliance and subcontractor material storage.
  - Supported planning activities for PFP Readiness Assessment.
  - Supported a Transition Workshop on Blue Sheeting process.
  - Supported on-site portion of a CH2M Corporate Audit on the OCRWM QA Program.
  - Completed SHSQ-2016-IA-17062, *Assessment of the CHPRC Assurance Program*, with three CRs generated: CR-2016-1032, -1033 and -1034.
  - Completed the PFP Effectiveness Review, *Low Levels of Contamination Discovered on Equipment Outside of Posted Radiological Areas* (CR-2015-2230 and CR-2016-0168).
  - Continued assistance, support and overview of Field Automated Checklist Tracking System, (FACTS) for Waste and Fuels organization.
  - Scheduled Assessment Planning Workshop for June 15, 2016.
  - Drafted FY2017 Integrated Evaluation Plan Planning Call Letter.
  - Submitted FY2017 Required Assessments to Project Assessment Coordinators (PAC) for review/input.
  - Supported preparations for RL Surveillance on QA program, Engineering Design.
  - Provided QA oversight at 324 project, assisted in writing three NCRs.

- Completed Procedure Periodic Review process on PRC-PRO-QA-3144, *Supplier Quality Assurance Program Evaluation*.
- Assisted in the review and blue sheet process for 18 WCH procedures in use at 324 project.
- Completed assigned Surveillance, SHS&Q-206-SURV-16204, *S/CI Program*.
- Completed assigned Surveillance, SHS&Q-2016-SURV-16205, *QARD Section 18.0 – Audits*.
- o Fire Protection accomplishments:
  - Fire Protection continues to adjust staff as necessary to cover all of the Projects and meet the needs of the work load.
  - CHPRC continues to work on the IT&M issues with MSA. CHPRC Work Control has improved data queries to gather better information on the completion of IT&M. CHPRC, MSA and WCH participated in an analysis to determine a way to resolve the issues with reporting when IT&M is going beyond the scheduled due date or beyond grace. MSA FSM is working on developing a reporting process to notify other Prime Contractors of IT&M that will not be completed within the required time periods and the causes associated with the delay.
  - Combustible controls processes and procedures in Building 324 are being evaluated for improved compliance.
  - A due diligence evaluation is being prepared to cover issues at the 618-10 site. The FHA is being evaluated along with consistency in the DSA and the implementing procedures.
  - Significant preparations were completed to support the Power Outage necessary for a secondary power supply to the LIGO Project. Outage conducted June 3-5.
  - A fire suppression sprinkler system modification review for the WESF W-130 Project resulted in a determination the existing sprinkler system does not meet the hydraulic performance required. A previous modification was performed without a hydraulic calculation and the result was a less than adequate design. A modification to the system will be required to resolve the deficiency.
  - TSR Surveillances:
    - SWOC:
      - o 2X-16-01267/S, CWC 3 Month Combustible Surveillance (TSR).
    - PFP:
      - o ZAP-000-029, Checklist 2, Monthly Sheet 2 (TSR).
      - o ZAP-000-029, Checklist 3, Bi-Weekly/Monthly 3 (TSR).
      - o ZAP-000-029, Checklist 4, Weekly Fire Loading 4 (TSR).
      - o FS Supply Valves 1 (TSR).
    - Facility Fire Protection Assessments:
      - o There were no Facility Fire Protection Assessments scheduled or completed in May. Preliminary preparations have been completed for Assessments to be scheduled and completed in June.
    - FHA:
      - o The 105KW Complex FHA is in Tech Edit.
      - o The T Plant FHA has been published and will be submitted with the SWOC MDSA package.
      - o The REDOX FHA has been submitted to the Hanford Fire Marshall's Office for review and comment.
      - o A new FHA for 241-Z-361 and 216-Z-9 is complete.
      - o The PUREX FHA is in Tech Editing.
      - o The SWOC FHA is complete.
      - o The WESF FHA is nearing completion.

- Status of SHS&Q Focus Areas:
  - **Issue:** Beryllium (Be) program assessment findings from DOE-HQ, Office of Safety, Health and Security Independent Oversight Inspection report.
  - **Status:** Continued implementation of Revision 2A across CHPRC. Comment resolution is complete for Revision 3 and is being routed for signature.
  - **Action:** Beryllium (Be) facility assessments and characterization continues as scheduled. Beryllium facility assessments have been completed on 1236 CHPRC facilities. RCCC work scope is being reviewed for Be implementation and potential concerns for due diligence prior to transition to CHPRC.
  - **Issue:** Accident & Injury Reduction.
  - **Status:** Continue investigating recordable, DART, and first aid injuries to determine cause, prevention, reduction, to prevent recurrence.
  - **Action:** Continue interface with project personnel, supporting EZAC and project safety meetings for continued focus on injury prevention. Recordable injury trend across CHPRC has improved, and continued focus is necessary. Projects have identified and are implementing additional actions, which are helping to reduce injuries and first aids.
  - **Issue:** PFP Support.
  - **Status:** Supporting PFP with additional OS&IH personnel and RadCon personnel, from the SHS&Q Central group for oversight of high risk work activities.
  - **Action:** Supporting PFP initiatives, supplied breathing air system issues; radiological & safety oversight, clearance survey plan upgrades, demo readiness preparations, ACL extensions, and J plan waste path forward.
  - **Issue:** Fire Protection program weaknesses.
  - **Status:** Program weaknesses continue to be identified and corrective actions are underway to improve program. Additional personnel resources have been hired to support projects.
  - **Action:** Continued interface with MSA to work off CHPRC back log items on the MSA IT&M log and to improve MSA HFD support to CHPRC projects. Recent RL concerns regarding slow improvements and continuing issues with MSA ITM have been raised by RL and are being addressed. Working with CHPRC projects to schedule and perform back log of facility fire protection assessments. Continued focus on recent workshop actions and path forward.

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

### Environmental Protection

- **Compliance Status**
  - Ecology issued a RCRA temporary authorization allowing closure activities to proceed in the WESF Hot Cells. The authorization is good for 180 days.
  - Concurrence was received from the U.S. Environmental Protection Agency for the CAT I and CAT II asbestos material to be left in place during demolition of 236Z, 242Z, and 242AZ at PFP.
  - Continued to assist with transition planning for the 618-10 burial ground, 324 Building transition, and ERDF transitions. This included assisting the project with update of the 324 Building RCRA closure plan revision (to satisfy TPA Milestone M-089-06, due date June 30, 2016).
  - Participated in the Ecology Conceptual Agreement Package workshop for Groundwater Monitoring for the Revision 9 Hanford Facility RCRA Permit renewal. Worked with RL, ORP and Hanford contractors on proposed changes to the Site Security Attachment to the Permit.
  - Cleanup of a late April 400 gallon diesel spill in the 100 K Area was conducted in May, following cultural, radiological and other reviews of the area. Confirmatory sampling was conducted.
  - There were five regulatory agency inspections conducted of CHPRC managed areas and facilities: WDOH inspections of B Plant and REDOX, RCRA inspections of WESF, Trenches 31/34, and the 200 E Area.

## Environmental Compliance & Quality Assurance (ECQA)

### • Assessment Program

- o An internal audit of the CHPRC EMS Program was completed on May 2, 2016, focused on 10 of the 18 elements of international standard ISO 14001:2004, *Environmental Management Systems – Requirements with guidance for use*. Worker awareness and the effectiveness of corrective actions associated with FY2015 EMS audits were also assessed. Two findings, two opportunities for improvement, and two noteworthy practices were identified. A final report was issued on May 25, 2016.
- o A surveillance was conducted in May 2016 to determine whether Polychlorinated biphenyl (PCB) and mercury were appropriately identified and then dispositioned in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) during Deactivation, decontamination, decommissioning, and demolition (D4) activities. Surveillance EP&SP-2016-SURV-16403 identified two opportunities for improvement.

## Business Services

### • Acquisition Planning:

- o Developed the procurement approach and approval process for WCH subcontractor staff transitioning as part of the 618-10 and ERDF scope transition.
- o Completed the evaluation and update of the Functional and Project Concurrence Checklist, including an update of the Subject Matter Experts and completeness of topics and instructions.
- o Met with project representatives to define and establish the procurement strategy for an estimated \$4 million to support environmental reporting for the S&GRP.
- o Met with WCH representatives to address subcontracts that would be assigned to CHPRC as part of the RCCC transition.
- o Drafted an Expression of Interest letter for the purpose of performing a market survey of capable vendors to support deactivation/demolition activities at the PRF. CHPRC would like to consider using a construction man lift/hoist system to remove glove boxes and conveying systems from the facilities. Some of the glove boxes are six floor above ground level and it appears the hoist system would be an efficient method to lower the equipment to ground level for disposal.
- o Developed the procurement strategy and statement of work to migrate computer-based training courses from the current RCCC prime contractor to CHPRC.

### • Facilities & Property Management (F&PM):

- o FY2016 Physical Property Inventory review is underway with field work completion date of August 31, 2016. Final inventory review reports and Balanced Score Card submittal by October 31, 2016. F&PM has completed locating 54.54 percent of 3,317 items through May 2016.
- o Efforts continued on installing two self-contained showers (MO2506 & MO6500) at PFP, currently awaiting occupancy/operation permitting.
- o MO407 in the 200E area in process of transfer to MSA. Awaiting Inter-contractor Transfer Order (ICTO) signature from MSA.
- o Received word in May from ENW that current warehouse being utilized by WCH will not be available for lease next fiscal year. Working with ENW and WCH to find storage solution for transitioning materials, including use of MSA warehouse space and/or other ENW space.
- o Received direction from RL to begin planning efforts to vacate the 2420 Building and relocate existing CHPRC employees to the Federal Building. RL employees will relocate to 2420 in an effort to share resources with neighboring DOE-ORP.

### • Finance:

- o May month end completed with no suspensions.
- o Drafted DST/APE, Project Entries, and Monthly Service Accruals Procedures in response to corrective actions related to Performance Audit of CHPRC Accounting System by KPMG.

- o Completed Accrual Assessment – summary was provided to RL Finance.
- o Working with Cohn Reznick to address FY2015 Incurred Cost Report adequacy questions.
- o Working transition planning for 618-10 and ERDF.
- o Developed planning FY2017 labor rates/adders for FY2017 ETC preparation.
- o Gathering support for Department of Revenue audit of FY2012-2015.
- o Worked with RL on Lease and Rental commitments request.
- **Human Resources:**
  - o Compensation staff participated in the 2016 Savannah River Nuclear Solutions (SRNS) and Savannah River Remediation (SRR) Customer Survey of select Bargaining Unit positions and First Line Manager roles.
  - o Compensation participated in the 2016/2017 Mercer US Compensation Planning Survey. The results and data provided in this survey enable CHPRC to gauge our position to market and follow merit budget trends across the United States.
  - o 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 percent with an effective date of January 1, 2016.
  - o Compensation has begun a job evaluation (review) process for approximately 75 employee positions in the classifications of Operations Specialist, Administrative Specialist, and Executive Secretary. Employees and Managers of employees in impacted roles are being asked to complete Position Evaluation Forms to provide us with current duties, and percentage of time spent on duties. The purpose of this review is to ensure that we have each position placed in the appropriate job classification, have a job description that accurately represents the duties being performed, and most importantly have each position properly classified for purposes of overtime eligibility (exempt vs. nonexempt). We will make recommendations for any potential changes as a result of this review process in August 2016.
  - o A reminder went out to all managers and all exempt and salaried non-exempt employees to meet together to update and provide feedback on performance. This is a part of the Performance Planning and Review Program.
  - o Members from Staffing provided support to Veterans who are looking for work through resume review and development workshop at Work Source.
- **Labor Relations:**
  - o Continue transition activities for the remainder of HAMTC represented employees transferring with the 618-10 and ERDF work scope from WCH to CHPRC at the end of August, 2016.
  - o Arbitration originally scheduled for December 15-16, 2015, to address HAMTC's General Council grievance in regards to D&D activities at PFP has been postponed. Parties continuing to discuss and exchange settlement proposals with the intent to try and resolve issue without proceeding to arbitration.
  - o Grievance PRC-014-096 dealing with jurisdiction of steam lines was heard by the arbitrator on March 23, 2016. Arbitrator's decision on the case is expected by mid-June 2016.
  - o Grievances PRC-015-051 and PRC-016-014 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.
- **Procurement:**
  - o Awarded/amended 118 contracts with a total value of \$14.8 million. Additionally, awarded 247 new material purchase orders (PO) valued at \$824,970 to support ongoing project objectives.
  - o At the end of the first 92 months of the CHPRC project, procurement volume has been significant; \$2.35 billion in contract activity has been recorded with approximately 52.92 percent, or \$1.24 billion, in awards to small businesses. This includes 7,275 contract releases, 20,697 PO's, and 247,068 P-Card transactions.

- o Contract 48772-19 was awarded to StillWater LLC on May 9, 2016. This is firm fixed price contract for the installation of six monitoring wells at 100-NR-2. This award is valued at \$249,785.00.
- o Contract 36883, Release 27 was awarded to Ojeda on May 2, 2016. This is a time and material contract for "S&GW Well Tie-ins at KR-4" SOW. This award is valued at \$165,472.50.
- o Contract 44438, Release 50 was awarded to DGR-Grant on May 4, 2016. This is a time and material contract for "S&GW Well Tie-ins at DV-1" SOW. This award is valued at \$217,000.
- o Contract 55747, Release 02 awarded to Apollo Sheet Metal Inc, on May 17, 2016. This is a firm fixed price contract for "STP Annex Building Outside Scope." This award is valued at \$385,578.44.
- o Contract 55747, Release 07 awarded to Apollo Sheet Metal Inc, on May 17, 2016. This is a firm fixed price contract for "In Basin ECRTS Equipment Install Scope." This award is valued at \$1,574,452.31.
- o Contract 54134-6 for "STP ECRTS Stack Sampling System PS-07," was awarded to Columbia Energy & Environmental Services Inc. based on competition in the amount of \$247,667.63.
- o Contract 59930 was awarded to Two Rivers Terminal on May 17, 2016. This contract is a firm fixed unit rate contract for the 200 West P&T Facility Chemicals. This award is valued at \$8,835,727.97 (Base Period: \$4,824,332.99 {6/1/2016-9/30/2017}; Option Year 1: \$4,011,394.98 {10/1/2017-9/30/2018}).
- o Under Contract 37351, seven releases were awarded to Tradewind Services, LLC in May 2016 for planner/engineer/operations and technical writing support. These are labor hour/time and material type contracts awarded for a total value of \$1,058,702.
- o Under Contract 50985, five releases were awarded to ANR Group, Inc. in May 2016 for interns. These are labor hour type contracts awarded for a total not to exceed value of \$152,131.
- o Under Contract 56253, two releases were awarded to I-3 Global, Inc. in May 2016 for Operations/Safety Specialist support. These are labor hour/time and material type contracts awarded for a total not-to-exceed value of \$126,825.
- o Contract 60251 was awarded to Fred N. Carlson on May 26, 2016, for Independent Assessment support. This is a labor hour contract awarded for the not-to-exceed amount of \$99,885.

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

- **River Corridor Closure Contract (RCCC) Transition:**

- o Continued progress on the implementation of Change Order 304, "Initiate Transition of RCCC Scope Activities into the Plateau Remediation Contract (PRC)" which authorized CHPRC to prepare a PMB for the RCCC scope transitioning to CHPRC; provided direction to proceed with transition of the 324 nuclear facility and ancillary buildings and 300-296 soil remediation project no later than April 30, 2016 to transition ERDF, the 618-10 and 618-11 burial grounds, and the balance of RCCC scope no later than August 30, 2016; and authorized CHPRC to prepare a change proposal for cost of transition and cost of executing the identified work scope which is being transitioned into the PRC.
- o Change Proposals were submitted to RL for Implementing RCCC Transition and G&A Fee Request, 316-4 and 600-53 Waste Sites, and RCCC Remaining Closure Operations
- o Efforts continued on the development of the Change Proposal and PMB to be submitted to RL for the remediation of the 618-10 Waste Site, a supplement to the ERDF Operations Change Proposal to address removal of ERDF transportation and disposal costs currently in the CHPRC PMB, and Minor Capital Funded Projects that CHPRC was notified on May 27, 2016 would be included in the scope to be transitioned to the PRC from the RCCC.

- **Contract Compliance and Change Management (CC&CM):**
  - o In May, CC&CM received and processed four contract modifications (507, 510, 511, and 513) from RL.
  - o The Correspondence Review Team received and determined the distribution for 72 incoming letters/documents. The Prime Contract Compliance Manager reviewed 34 outgoing correspondence packages.
  - o Received the final award fee determination for the FY2015 evaluation period. CHPRC earned \$10,591,975 (earnings represent 97 percent of available fee) and received a rating of excellent.
  - o Issued CHPRC-1601926, *Pre-Existing Condition – Lack of Continuous Air Monitors on Plutonium Uranium Extraction Facility and B Plant Stacks.*
  - o Issued CHPRC-1602062, *Impacts Due to Differing Site Conditions for 100K Area Waste Sites.* The purpose of the letter was to formally notify RL of a differing site condition at the parameter for the 41-K Project Area Waste Sites in the 100K Area and to notify RL of potential impacts to CHPRC’s ability to remediate the waste sites.
  - o Issued two Notification of Change Letters: CHPRC-1602071, *Notification of Change to Remove 100-NR-2 Pump and Treat System Foundations/Slab and to Address Cultural Mitigation Measures;* and CHPRC-1602080, *Notification of Change for Evaluation of Monitored Natural Attenuation at 200-UP-1.*
  - o Issued CHPRC-1601800, *Notification of Impacts to Performance Measure PM-13-5-16 “Complete Waste Encapsulation and Storage Facility Ventilation and Stabilization Project”.* This Performance Measure is in jeopardy due to several factors outside the control of CHPRC.
  - o Submitted the following FY2016 Performance Measure Completion Packages:
    - PM-30-6-16, *Complete 200-BP-5 Treatability Test and submit Draft A Treatability Test Report.*
    - PM-30-2-16, *Maximize plume containment and remediation utilization.*
  - o Four CPs/REAs Submitted (On or Ahead of Schedule):
    - CP 041 304 1592 R1 - Implement RCCC Transition and G&A Fee Request (5/26/16)
    - CP 041 304 1597 - RCCC Remaining Closure Operations (5/19/16).
    - CP 041 304 1600 - 316-4 Waste Site (5/26/16).
    - CP 041 304 1610 - 600-63 Waste Site (5/26/16).
  - o Zero CPs/REAs submitted late.
  - o Four CPs/REAs in development:
    - CP 011 PRC 1611 - Removal Building Slabs for the 236-Z and 242-Z Facilities.
    - CP 041 304 1595 Supplement A - ERDF Deduct.
    - CP 041 304 1596 - 618-10 Burial Ground.
    - CP 041 304 1613 - Minor Capital Funded Projects RCCC Transition Add-ons.
  - o Miscellaneous Estimating Support:
    - Long-Range planning support.
    - PMB support for the RCCC work scope transitioning to PRC.
    - No updates.
- **Earned Value Management System (EVMS) Compliance and Reporting:**
  - o Progress continued to be made on EVM Assessment Corrective Actions. As of month end, 57 of 68 actions had been completed (84 percent complete).
  - o During May, EVMS C&R facilitated and supported the processing of 15 BCRs. This high volume of BCRs each month is projected to continue for the foreseeable future.
  - o Continued to support RCCC Transition planning with emphasis on developing the PMB and change proposals for scope that will transfer to CHPRC.

- o Completed the transition of the CHPRC VAR training class to computer based training. CHPRC now has 3 of the core EVM training classes (VAR training, BCR training, and Accrual training) available as computer based making them readily available to employees when they need them.
- o CHPRC continued to support the DOE PM-30/EFCOG initiative to update the DOE Management System Interpretive Handbook (EVMSIH).

### **Integrated Services:**

- **Interface Management**

- o Interfaces (Technical, Administrative and Regulatory):
  - Continue to monitor the isolation of the 100 Area Raw Water Fire Loop system by WCH/MSA. Current plan is for MSA water utilities to isolate the Raw Water Fire Loop prior to RCCC contract transition to CHPRC.
  - Followed up on MSA service change for non-fire system Backflow preventer testing. Service will become, as requested, usage based through Fire System Maintenance. Fire System Maintenance and Water Utilities SDD are under revision to reflect the change. MSA will issue a communication regarding how the service will be requested and scheduled.
  - Supported and facilitated communications between WRPS at 222S and CHPRC at REDOX. Recently facilitated cultural/ecological review clarifications for the water utility isolation and other Managed Task issues (e.g. waste identification and disposition) associated with the water utility isolation on the MSA side of the facility demarcation.
  - Facilitated closure of long term issue related to MSA RSS acceptance of potentially contaminated Radiological Instruments. MSA RSS has implemented a receiving area and process to accept and repair/calibrate these instruments without prior disassembly and decon at the facility.
  - Facilitated PFP Incident Command Post relocation to MO2118 for PFP. Engaged MSA Information Technology management to request expedited support to complete the relocation to PFPs schedule requirement.
  - Reviewed Hanford Fire Department (HFD) PAPR Contractor Improvement Process Letter and discussed with affected CHPRC Projects.
  - Working with MSA on rollout communications and implementation issues related to the DOE directed limitation on Use of Government Vehicles for Overtime Shift rides home.
  - Provided recommendation to Other Hanford Contractor (OHC) (WRPS/MSA) regarding our interpretation of the most acceptable process for transferring contract scopes related to Facilities/Structures between the contractors. We advised, after consultation with our CPS&M FPD that these are contract scope changes that require contract direction from the DOE Contracting Officers to proceed.
  - Supporting CHPRC response to the MSA Water Purveyor's notification of deficiency related to Air Gap/Cross Connection compliance actions at WESF, PFP, and 200W P&T.
- o Annual Forecast of Services:
  - Evaluating MSA resource needs and impacts related to RCCC Transition. Biweekly meetings with MSA are occurring to ensure ready to serve operations are not impacted.
  - Began preparations and discussions with MSA related to the FY2017 MSA forecasting process. Preliminary rates were received from MSA on some service/labor categories.
  - Facilitated data collection for the MSA HFD related to SCBA/PAPR FY2017 forecasted usage by CHPRC.
- o Inter-Contractor Issue Resolution:
  - Supporting discussions between WRPS at Effluent Treatment Facility (ETF) and CHPRC at the Modutanks facility, regarding lines of demarcation and maintenance on the "tie-in" to the ETF raw water line. Drafting an Interface Control Document (ICD) to cover the new demarcations and contractor roles and responsibilities.

- Continued working with HFD, CHPRC Projects (SWOC/PFP), and CHPRC Work Control to improve communications, and streamline planning/corrective maintenance items. The SDD J.3 ID#20 will be revised to include interim corrective measures until a more inclusive document can be drafted.
- o Controlling and Service Agreements:
  - Continued efforts in supporting the annual review of the J.3 Service Delivery Documents.
  - Draft ICD for MSA Electrical Utilities is under review by MSA Electrical Utilities points of contact.
  - Revision of HNF-46148, Water System Services, is in progress. Fire Protection Engineering is aligning Program and Project requirements for demarcations and maintenance responsibilities. These requirements will be added to the document for Water Utilities.
  - Supporting ongoing discussions with WRPS regarding the future use of the existing ERDF Leachate Transfer Line and additional tie-in interfaces related to the new Leachate Transfer Line to the 200W P&T.
- o J.3 Table Maintenance:
  - In process updates being tracked for the RCCC Transition effort. Team meetings with MSA/WRPS to work on updates to the J.3 table will continue through the transition.
- o Internal Operations:
  - Drafting a new Administrative Interface Agreement (AIA) to support RCCC transition, related to HLAN conversion at 618-10 and ERDF.
  - Completed/Closed Interface Management RCCC Transition Item Checklist items for 618-10, ERDF and the Remaining Closure Operations scope.
  - HNF-48239, Revision 5, Roles and Responsibilities for the Safeguards & Security Program AIA has been routed for signatures.
  - Researched office space options in response to WRPS request for an office space swap in the 200E area. Also, researched options for expansion of the growing CPS&M organization for emerging FY2016 and FY2017 work scope.
  - Provided feedback on RCCC Transition WBS dictionaries and BOEs as related to MSA support services.
  - Reviewed MSA SOW that will provide backup of the raw water for the CSB from the sanitary water system, allowing the CSB Fire Tank/Pump to be deactivated.
- **Information Management:**
  - o Provided IT, event logistics, and facilitation support to EZAC, PZAC, Ascent Training, Leadership Impact Initiative and various onsite and offsite tours, corporate visits and meetings.
  - o Provided information clearance and release support for KBO&PR, S&GRP, W&FMP, SHS&Q and PTS documents.
  - o Supported numerous IT support requests for cellular phone issues/questions, meeting set-up, network connections, and printing.
  - o Completed RCCC Information Services and Records Transition checklists for the 618-10 and remaining closure projects.
  - o Processed 16,745 Electronic Records into the Integrated Document Management System (IDMS).

#### **Program Integration:**

- **000 Project EVM Support:**
  - o FY2017 Target Funding was identified and Project Control Analysts are working with Indirect CAMs to plan the FY2017 ETC.
  - o Prepared and submitted April 000 Project Review presentation.

- o Continued work on calculation of Training on Overtime through FTI Consulting - met with FTI, MSA and WRPS to coordinate outstanding questions related to sampling technique, process, and set aside testing.
- **Risk Management:**
  - o Risk Management staff provided risk register reviews for each of the key RL WBS elements (RL-011, RL-012, RL-013, RL-030, RL-040, RL-041, and RL-042). In addition, Risk Management supported the projects with 15 BCRs that were processed in the month of May.
  - o Risk Management continued to support RCCC transition efforts. In the month of May, risk elicitation were conducted with RL to support the 300-296 PMB development, and risk registers were updated to support upcoming 618-10 complex risk analysis.
- **Reporting:**
  - o Reporting continues to work through the Risk Management and Reporting transition plan based on PC&PI organization changes to align with and focus on PC&PI's responsibilities within the CHPRC mission and to better provide support and services to RL, our projects and functional organizations.
- **Strategic Management:**
  - o Progress continues to be made towards completion of the Productivity Corrective Actions. Completed 22 of 24 actions (92 percent). The KBOPR Management Self-Assessment was completed on May 5, 2016

### Project Technical Services (PTS)

- **Engineering Services**
  - o Supported W-130, ECRTS, REDOX Roof, and 200W P&T engineering.
  - o Supported RCCC Transition WCH systems and document reviews.
  - o Supported Fleet Maintenance welding repair technical.
  - o Facilitated 100KW Annex heating, ventilation, and air conditioning heat detector corrective action plan.
  - o Supported site wide programs electrical safety.
- **Procedures and Training**
  - o Conducted meeting with Hanford Site Training Managers to determine submittal of comments and suggested changes to DOE O 426.2 which will shortly be in REVCOM system. The plan is to submit a consolidated set of comments for the Hanford Site.
  - o Reactivated the "Do Work Safely" course which will be provided to new CHPRC personnel that have not been on the Hanford Site before. First sessions will be provided in June 2016 as part of the PFP block training.
  - o Began development of Project Implementation Plan for the RCCC Procedure Transition.
  - o Worked training transition activities to support 618-10 and ERDF.
  - o Supported Sludge Treatment Project Nuclear Chemical Operator fundamentals class. K-Basins Systems class was conducted and qualification cards were updated.
  - o Participated in the training records management Kaizen preparatory meetings.
  - o Supported FTI's "Training on Overtime" analysis activities.
- **Operations Program**
  - o ConOps/Work Control/Conduct of Work:
    - Supporting B-324 transition to PRC processes.
    - Supported preparation for the upcoming VPP assessment.
    - Held quarterly Work Control Managers meeting.
    - Conducted PTS Productivity Tracking Log Management Assessment.
    - Developed RCCC ConOps Matrix Transition Tracking.

- Working on transition/transfer of WCH Maintenance and Test Equipment and update of Energy Northwest contract to support calibration of the equipment.
- Supported Admin Building Landlord in development of Fire Protection System PM Extension request to be submitted to RL.
- o Emergency Preparedness:
  - Conducted drills at the following facilities
    - MO277 (S&GRP).
    - WESF Tabletop Drill.
    - 2420 Stevens Center.
    - 100K.
    - WESF Full-Up Drill.
  - Updated WESF Building Emergency Plan to account for changes related to grouting.
  - Created HSWET organizations for tracking proficiency of 324 Building Facility Emergency Response Organization personnel.
- **Project Delivery**
  - o 300-296 Soil remediation:
    - Supported project planning and baseline tasks
  - o ERDF Transfer Line:
    - Construction Completion Document (CCD) completed for piping revisions at ERDF pump house and completed Operation Acceptance Test.
    - Completed installation and backfilling at UP1-4 Caisson.
  - o W-130 Stabilization:
    - Hazard Review Board completed and completed HEPA head removal.
    - Completed reconfiguration of condensate line on K3 Ventilation skid.
    - Completed tie-in of instrument wiring in electrical panels on the K3 Ventilation skid and display panel.
    - Commenced calibration of K3N skid instrumentation.
  - o 289T FBR and CS platforms:
    - Completed CCD at the fast breeder reactor platform.
    - Continued erection of steel for the CS 6-PAK tank platforms.
  - o CWC Roof Repairs:
    - Commenced repairs to 2403-WA building, water test scheduled for week of June 6, 2016.
  - o 100 Area Wells:
    - Completed CCD on 3 of 24 wells.
    - Commenced bonding of high-density polyethylene (HDPE) pipe, 45,489 of 64,853 linear feet installed at end of May.
    - Type W cable routed, 17,405 of 28,010 lf.
    - Beldon cable installed, 16,475 of 29,251 lf.
    - Fiber optic cable installed, 29,200 of 42,200 lf.
    - Completed 8 of 13 road crossings.
  - o 200 Area Wells:
    - Completed 3 of 5 road crossings.
    - Commenced bonding of HDPE, 1,200 of 7,600 lf.
  - o Trench 94 Package Maintenance:
    - Commenced field mobilization, Navy on site June 8-9, 2016 to perform reactor component design package inspection.

- o REDOX Roof:
  - Completed CHPRC 90 percent design review, comments transmitted to DGR Grant for resolution.
- **KW Annex Construction**
  - o Performed daily, weekly rounds, and monthly preventative maintenance of balance of plant equipment.
  - o Performed corrective maintenance on items identified in performance maintenance inspection punch list.
  - o Completed transfer of custody of Phase I construction material to Phase II construction contractor.
  - o Performed rebar scanning for the upcoming installation of seismic braces and outside concrete and asphalt work scopes.
  - o Mobilized excavation subcontractor to site.
  - o LMSI completed the installation of the telecommunications in the Annex (HLAN drops and speaker boxes).
  - o Continued work package development for upcoming ECRTS process equipment installation activities.
- **KW Basin In Basin Modifications Construction**
  - o Completed concrete placement for hose-in-hose shielding cap (outside Door 148), shielding doghouse (inside Door 148) and filling Ingress/Egress box once grout was cured.
  - o Completed the installation of the ion-exchange module (IXM) pipe rack and supporting hoses and the rupture disk skid underwater in the Basin.
  - o Successfully completed IXM pipe header in-service leak test.
  - o Continued fabrication of the booster pump rail system.
  - o Continued reviewing APW submittals/Commercial Grade Dedication (CGD) packages and material procurements to support future construction activities.
  - o Continued work package development for upcoming ECRTS process equipment installation activities
- **T Plant Modification Construction**
  - o Built and prepared glove bag mock-up of asbestos gasket removal and contamination surveys for the leak detection electrical work scope in the piping gallery.
  - o Continued work package development for installation of the water addition system, leak detection system and associated conduit.
  - o Continued disassembly and downsizing of the Drum Load-out Assembly and Buffer Tank Assembly.
  - o Performed concrete scanning of anchor bolt installation locations in the operations and piping galleries.
  - o Completed assembling the load securement dunnage for the buffer tank assembly in preparation for packaging.
  - o Continued work package development for grouting IP-2 waste containers, leak detection system installation, and nitrogen purge system installation.
  - o Held Enhanced Work Planning session with Construction, Operations, and subject matter experts on grouting of IP-2 waste containers. Significant challenges were brought to light through the collaborative efforts of all involved.
  - o Relocated remaining North Loadout Pit Equipment in the T Plant Canyon from its installed location to allow for Operations to remove the cover blocks on cells 8R and 9L and document inventory next week.

## Communications

- o Communications supported RL in the development of articles for the May issues of the EM Update:
  - May 16, 2016: The [article](#) focuses on safety improvements and project progress at the PFP, including the realignment of work to place an increased focus on worker safety.
  - May 31, 2016: The [article](#) covers the removal of glove box HC-6 from the PFP.
- o Communications supported RL in the development of a presentation for the Oregon Hanford Cleanup Board on the cesium/strontium capsules that are stored at the Waste Encapsulation and Storage Facility.

## 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                         | 0.2                                      | 0.1                                      | 0.3                                    | (0.1)                        | -27.1%                      | (0.2)                    | -144.0%                 |
| Internal Audit                                  | 0.1                                      | 0.1                                      | 0.1                                    | 0.0                          | 0.0%                        | (0.0)                    | -13.7%                  |
| General Counsel                                 | 0.1                                      | 0.1                                      | 0.1                                    | 0.0                          | 0.0%                        | 0.0                      | 31.6%                   |
| Communications                                  | 0.1                                      | 0.1                                      | 0.1                                    | 0.0                          | 0.0%                        | (0.0)                    | -14.0%                  |
| Safety, Health, Security and Quality            | 1.2                                      | 1.2                                      | 0.9                                    | (0.0)                        | -0.5%                       | 0.2                      | 20.3%                   |
| Environmental Program and<br>Strategic Planning | 0.4                                      | 0.4                                      | 0.3                                    | 0.0                          | 0.0%                        | 0.1                      | 20.8%                   |
| Business Services                               | 1.6                                      | 1.6                                      | 1.5                                    | 0.0                          | 0.0%                        | 0.1                      | 6.4%                    |
| Prime Contract and Project<br>Integration       | 1.6                                      | 1.6                                      | 1.5                                    | 0.0                          | 0.0%                        | 0.1                      | 8.2%                    |
| Project Technical Services                      | 0.6                                      | 0.6                                      | 0.6                                    | 0.0                          | 0.8%                        | (0.0)                    | -0.2%                   |
| <b>Indirect WBS 000 Total</b>                   | <b>5.9</b>                               | <b>5.8</b>                               | <b>5.5</b>                             | <b>(0.1)</b>                 | <b>-0.9%</b>                | <b>0.4</b>               | <b>6.3%</b>             |

Numbers are rounded to the nearest \$0.1 million.

### Indirect WBS 000

#### CM Schedule Performance: (-\$0.1M/-0.9%)

The variance is within reporting thresholds.

#### CM Cost Performance: (+\$0.4M/+6.3%)

The variance is within reporting thresholds

## 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                         | 2.4                                   | 2.6                                   | 3.4                                 | 0.1                          | 4.9%                        | (0.8)                    | -33.0%                  | 3.2                              |
| Internal Audit                                  | 0.7                                   | 0.7                                   | 0.7                                 | 0.0                          | 0.0%                        | 0.0                      | 2.2%                    | 1.1                              |
| General Counsel                                 | 0.9                                   | 0.9                                   | 1.4                                 | 0.0                          | 0.0%                        | (0.5)                    | -48.5%                  | 1.5                              |
| Communications                                  | 0.7                                   | 0.7                                   | 0.7                                 | 0.0                          | 0.0%                        | (0.1)                    | -10.2%                  | 1.0                              |
| Safety, Health, Security<br>and Quality         | 9.4                                   | 9.4                                   | 7.8                                 | (0.0)                        | -0.1%                       | 1.6                      | 16.9%                   | 14.8                             |
| Environmental Program<br>and Strategic Planning | 3.2                                   | 3.2                                   | 2.8                                 | 0.0                          | 0.0%                        | 0.4                      | 11.5%                   | 5.0                              |
| Business Services                               | 13.1                                  | 13.1                                  | 11.3                                | 0.0                          | 0.0%                        | 1.8                      | 13.8%                   | 20.7                             |
| Prime Contract and<br>Project Integration       | 13.1                                  | 13.1                                  | 12.3                                | 0.0                          | 0.0%                        | 0.8                      | 6.4%                    | 20.7                             |
| Project Technical Services                      | 4.4                                   | 4.4                                   | 4.0                                 | 0.0                          | 0.2%                        | 0.4                      | 8.5%                    | 6.9                              |
| <b>Indirect WBS 000 Total</b>                   | <b>48.0</b>                           | <b>48.1</b>                           | <b>44.5</b>                         | <b>0.1</b>                   | <b>0.4%</b>                 | <b>3.6</b>               | <b>7.5%</b>             | <b>75.0</b>                      |

Numbers are rounded to the nearest \$0.1 million.

### Indirect WBS 000

#### FYTD Schedule Performance: (+\$0.2M/+0.4%)

The variance is within reporting thresholds.

#### FYTD Cost Performance: (+\$3.3M/+7.7%)

The favorable cost variance is primarily due to an unplanned credit realized as a staff augmentation cost. Also, contributing to the favorable cost variance is the accelerated completion of the final RCCC Transition Plan to RL in February 2016, completing ahead of the planned April 2016 date.

## FY2016 G&A Analysis (\$M)

| WBS 000<br>Project Services and Support       | FY2016       |                |                           |                |                    |                             |
|---|--------------|----------------|---------------------------|----------------|--------------------|-----------------------------|
|   | FYTD<br>BCWS | FYTD<br>Actual | FYTD<br>Variance<br>(O)/U | FY2016<br>BCWS | FY2016<br>Forecast | FY2016<br>Variance<br>(O)/U |
| <b>General &amp; Administrative (G&amp;A)</b> | <b>48.0</b>  | <b>44.5</b>    | <b>3.5</b>                | <b>75.0</b>    | <b>76.3</b>        | <b>(1.3)</b>                |
| Office of the President                       | 2.4          | 3.4            | (1.0)                     | 3.2            | 6.3                | (3.1)                       |
| Internal Audit                                | 0.7          | 0.7            | 0.0                       | 1.1            | 1.2                | (0.1)                       |
| General Counsel                               | 0.9          | 1.4            | (0.5)                     | 1.5            | 1.8                | (0.3)                       |
| Communications                                | 0.7          | 0.7            | (0.1)                     | 1.0            | 1.2                | (0.2)                       |
| Safety, Health, Security and Quality          | 9.4          | 7.8            | 1.6                       | 14.8           | 13.6               | 1.2                         |
| Env. Program & Strategic Planning             | 3.2          | 2.8            | 0.4                       | 5.0            | 4.5                | 0.6                         |
| Business Services                             | 13.1         | 11.3           | 1.8                       | 20.7           | 19.7               | 1.0                         |
| Prime Contract and Project Integration        | 13.1         | 12.3           | 0.8                       | 20.7           | 19.9               | 0.8                         |
| Project Technical Services                    | 4.4          | 4.0            | 0.4                       | 6.9            | 8.1                | (1.2)                       |

|   | FYTD          | FY2016        |
|---|---------------|---------------|
| <b>G&amp;A Distribution</b>             | <b>(44.2)</b> | <b>(76.3)</b> |
| <b>G&amp;A Liquidation (Over)/Under</b> | <b>0.3</b>    | <b>(0.1)</b>  |

### Liquidation Analysis

For May, application of the G&A rate has under-liquidated total to date G&A cost by \$0.3 million. The FY2016 year-end projected over-liquidation of \$0.1 million reflected in the FYSF reflects a projected increase 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

**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>Executive Level Risks</b>  |  |   |   |   |                         |           |         |   |                                |        |          |     |                                |          |     |  |          |     |  |          |     |   |         |    |                                       |         |    |                                    |         |    |
| <b>Explanation of major changes to the project monthly spotlight chart:</b><br>No major changes to the risk profile for the month of <b>May</b> .   |  |   |   |   |                         |           |         |   |                                |        |          |     |                                |          |     |  |          |     |  |          |     |   |         |    |                                       |         |    |                                    |         |    |
| <b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>  |  |   |   |   |                         |           |         |   |                                |        |          |     |                                |          |     |  |          |     |  |          |     |   |         |    |                                       |         |    |                                    |         |    |
| PRC-022: Higher Than Anticipated Attrition  | Higher than planned attrition or staffing reduction is experienced resulting in project schedule delays, and increased training costs.<br><br><b>Risk Handling Strategy:</b> Avoid<br><br><b>Probability:</b> Likely (75% to 90%)<br><b>Worst Case Impacts:</b> \$5 million, 40 days |  |  | <b>Risk Event:</b><br>CHPRC continues to experience higher than anticipated attrition for FY2016. <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>Implement salary increase fund</td> <td rowspan="7" style="text-align: center;">FY2015</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Proposed PFP incentive program</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Draft retention and recruiting plan investment for FY2015.</td> <td>Complete</td> <td>100</td> </tr> <tr> <td>Develop/implement CHPRC People Legacy Program.</td> <td>On Going</td> <td>N/A</td> </tr> <tr> <td>Target recruiting for key project resources</td> <td>9/30/18</td> <td>48</td> </tr> <tr> <td>Continue PFP resource transition plan</td> <td>9/30/17</td> <td>48</td> </tr> <tr> <td>River Corridor Closure recruitment</td> <td>9/30/18</td> <td>48</td> </tr> </tbody> </table><br><b>Recovery Action Assessment:</b><br>Forecasted completion dates for recovery actions were updated to reflect continued planned efforts to recover this risk throughout the PRC. CHPRC continues to increase recruitment, and analysis of comparable markets for salary competitiveness. Potential problems exist pending funding profiles for other site contractors. No alternative course of actions needed at this time. | Risk recovery action(s) | Risk Date | FC Date | % | Implement salary increase fund | FY2015 | Complete | 100 | Proposed PFP incentive program | Complete | 100 | Draft retention and recruiting plan investment for FY2015. | Complete | 100 | Develop/implement CHPRC People Legacy Program. | On Going | N/A | Target recruiting for key project resources | 9/30/18 | 48 | Continue PFP resource transition plan | 9/30/17 | 48 | River Corridor Closure recruitment | 9/30/18 | 48 |
| Risk recovery action(s)   | Risk Date  | FC Date   | %   |   |                         |           |         |   |                                |        |          |     |                                |          |     |  |          |     |  |          |     |   |         |    |                                       |         |    |                                    |         |    |
| Implement salary increase fund  | FY2015   | Complete  | 100   |   |                         |           |         |   |                                |        |          |     |                                |          |     |  |          |     |  |          |     |   |         |    |                                       |         |    |                                    |         |    |
| Proposed PFP incentive program  |  | Complete  | 100   |   |                         |           |         |   |                                |        |          |     |                                |          |     |  |          |     |  |          |     |   |         |    |                                       |         |    |                                    |         |    |
| Draft retention and recruiting plan investment for FY2015.  |  | Complete  | 100   |   |                         |           |         |   |                                |        |          |     |                                |          |     |  |          |     |  |          |     |   |         |    |                                       |         |    |                                    |         |    |
| Develop/implement CHPRC People Legacy Program.  |  | On Going  | N/A   |   |                         |           |         |   |                                |        |          |     |                                |          |     |  |          |     |  |          |     |   |         |    |                                       |         |    |                                    |         |    |
| Target recruiting for key project resources   |  | 9/30/18   | 48  |   |                         |           |         |   |                                |        |          |     |                                |          |     |  |          |     |  |          |     |   |         |    |                                       |         |    |                                    |         |    |
| Continue PFP resource transition plan   |  | 9/30/17   | 48  |   |                         |           |         |   |                                |        |          |     |                                |          |     |  |          |     |  |          |     |   |         |    |                                       |         |    |                                    |         |    |
| River Corridor Closure recruitment  |  | 9/30/18   | 48  |   |                         |           |         |   |                                |        |          |     |                                |          |     |  |          |     |  |          |     |   |         |    |                                       |         |    |                                    |         |    |
| <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>May</b> .   |  |   |   |   |                         |           |         |   |                                |        |          |     |                                |          |     |  |          |     |  |          |     |   |         |    |                                       |         |    |                                    |         |    |
| <b>High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)</b>   |  |   |   |   |                         |           |         |   |                                |        |          |     |                                |          |     |  |          |     |  |          |     |   |         |    |                                       |         |    |                                    |         |    |
| No high threat value risks identified in the month of <b>May</b> .  |  |   |   |   |                         |           |         |   |                                |        |          |     |                                |          |     |  |          |     |  |          |     |   |         |    |                                       |         |    |                                    |         |    |
| <b>Unassigned Risks (Pending ownership of identified risks/opportunities)</b>   |  |   |   |   |                         |           |         |   |                                |        |          |     |                                |          |     |  |          |     |  |          |     |   |         |    |                                       |         |    |                                    |         |    |
| CHPRC continues to conduct internal reviews to ensure risks are still valid. In cases where risk has passed/or is no longer valid CHPRC will no longer report, and close the risk in the database. In the event risk are still valid ownership will need 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. |  |   |   |   |                         |           |         |   |                                |        |          |     |                                |          |     |  |          |     |  |          |     |   |         |    |                                       |         |    |                                    |         |    |

## MILESTONE STATUS

None currently identified.

## SELF-PERFORMED WORK

The Section H.20 clause, entitled *Self-Performed Work*, is addressed in the Monthly Report Overview.

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

None identified.

# Appendix C

## Capital Asset Projects



May 2016  
CHPRC-2016-05, Rev. 1  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

Appendix C.1  
Capital Asset Project  
RL-011.C1 Removal of 174 Gloveboxes from  
234-5Z



T. E. Bratvold  
Vice President for  
PFP Closure Project

May 2016  
CHPRC-2016-05, Rev. 1  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

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                    | 162                       |
| KPP Rooms/Areas Ready for Demo | -                         | -                            | 60                     | 60 rooms/areas            |

### Summary:

The removal of plutonium-contaminated process equipment continued with a particular focus on removing gloveboxes, associated piping, and ductwork. The total number of gloveboxes removed to date is at 93 percent complete.

## KEY ACCOMPLISHMENTS

### 234-5Z

- Duct Level:
  - o Abated 210 feet of asbestos.
  - o Removed or dispositioned in place 571 feet of process vacuum piping.  
Removed or dispositioned in place 84 feet of E4 ducting.

## MAJOR ISSUES

None to report.

## CORRECTIVE ACTION LOG

| Control Account | Task Title                                | FY Year/ Month | CAM          | Status | Forecast Completion | Actual Completion | Assigned To  |
|-----------------|---|----------------|--------------|--------|---------------------|-------------------|--------------|
| 011.05.01.01    | Correct Timecards for Room 166 Field Team | 08/2016        | Mike Douglas | Open   | 6/09/16             |                   | Mike Douglas |

## 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>May</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>May</b> .  |   |   |   |   |                |          |
| <b>Critical Risks</b> (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)  |   |   |   |   |                |          |
| <b>FY2016 Risk Triggers</b> (Risk could be realized in FY2016)   |   |   |   |   |                |          |
| 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 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 FY2016. |                |          |
|  |   |   |   | <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>May</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>May</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>May</b> .  |   |   |   |   |                |          |

### Critical Path Schedule

The PFP Critical Schedule Path is a resource driven float path. The current E4 team in the 234-5Z duct level completes E4 duct and filterbox removals, then transitions to miscellaneous decon throughout 234-5Z to get it into a ready for demo state. Demolition of 234-5Z will occur in the following sequence: 234-5ZA, Frontside, A-Labs, Backside Rooms/PSSL, RMA Process Lines, RMC Process Lines, and finally the RADTU & Basement areas. Once complete, the final step is stabilization of the PFP site leading to completion of the final Tri-Party Agreement milestone – M-083-00A - *PFP Facility Transition and Selection Disposition Activities*.

## MILESTONE STATUS

Hanford Federal Facility Agreement and Consent Order (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 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 | 09/30/16 |             | 7/19/17       | <p>Stop works associated with PremAire breathing air suits/hoses in support of in-situ size reduction efforts, stop works associated with intrusive work in the 234-5Z duct level, safety pause associated with a radiological event, and reduction to five field work teams vs. eight, and increased durations to the E4 duct removal efforts caused the Tri-Party Agreement milestone projected completion date to gain 8 calendar days from the forecast date in the March report. This is as a result of identifying efficiencies to work parallel scope in the PRF canyon. As the PFP Project continues to make progress on the behind schedule critical path work scope being performed, efficiencies will continue to be evaluated and implemented to recover schedule delays. However, this Tri-Party Agreement completion is not expected to be met.</p> |

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

None identified at this time.

# RL-011.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



May 2016  
CHPRC-2016-05, Rev. 1  
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 / 04 / 25 |  |
| b. LOCATION (Address and ZIP Code)<br>Richland, WA |  | b. NUMBER<br>RL14788                    |  | b. PHASE   |  | b. TO (YYYYMMDD)<br>2016 / 05 / 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>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>53,164 | g. CONTRACT CEILING<br>56,683 | h. ESTIMATED CONTRACT CEILING<br>53,164 | 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 Manager |  | d. DATE SIGNED (YYYYMMDD) |
| a. BEST CASE                           | 44,010                                |                          |              | c. SIGNATURE   |                                    |  |                           |
| b. WORST CASE                          | 52,689                                |                          |              |  |                                    |  |                           |
| c. MOST LIKELY                         | 48,164                                | 51,683                   | 3,519        |  |                                    |  |                           |

|  |                           |                           |                                       |                     |                 |                           |                           |                                       |                      |                  |                                  |                                |                    |                      |                       |                      |
|--|---------------------------|---------------------------|---------------------------------------|---------------------|-----------------|---------------------------|---------------------------|---------------------------------------|----------------------|------------------|----------------------------------|--------------------------------|--------------------|----------------------|-----------------------|----------------------|
| <b>8. PERFORMANCE DATA</b>                                 |                           |                           |                                       |                     |                 |                           |                           |                                       |                      |                  |                                  |                                |                    |                      |                       |                      |
| CAPN.PBS<br>Control Account.PARS 2 WBS (2)<br><br>ITEM (1) | <b>CURRENT PERIOD</b>     |                           |                                       |                     |                 | <b>CUMULATIVE TO DATE</b> |                           |                                       |                      |                  | <b>REPROGRAMMING ADJUSTMENTS</b> |                                |                    | <b>AT COMPLETION</b> |                       |                      |
|  | <b>BUDGETED COST</b>      |                           | <b>ACTUAL COST WORK PERFORMED (4)</b> | <b>VARIANCE</b>     |                 | <b>BUDGETED COST</b>      |                           | <b>ACTUAL COST WORK PERFORMED (9)</b> | <b>VARIANCE</b>      |                  | <b>COST VARIANCE (12a)</b>       | <b>SCHEDULE VARIANCE (12b)</b> | <b>BUDGET (13)</b> | <b>BUDGETED (14)</b> | <b>ESTIMATED (15)</b> | <b>VARIANCE (16)</b> |
|  | <b>WORK SCHEDULED (2)</b> | <b>WORK PERFORMED (3)</b> |                                       | <b>SCHEDULE (5)</b> | <b>COST (6)</b> | <b>WORK SCHEDULED (7)</b> | <b>WORK PERFORMED (8)</b> |                                       | <b>SCHEDULE (10)</b> | <b>COST (11)</b> |                                  |                                |                    |                      |                       |                      |
| RL-0011 Nuclear Mat Stab & Disp                            |                           |                           |                                       |                     |                 |                           |                           |                                       |                      |                  |                                  |                                |                    |                      |                       |                      |
| RL_0011_C2.05 Disposition PFP                              | 3,957                     | -2,221                    | 214                                   | -6,178              | -2,435          | 16,806                    | 7,966                     | 8,347                                 | -8,840               | -381             | 0                                | 0                              | 0                  | 47,529               | 44,010                | 3,519                |
| 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  | 3,957                     | -2,221                    | 214                                   | -6,178              | -2,435          | 16,806                    | 7,966                     | 8,347                                 | -8,840               | -381             | 0                                | 0                              | 0                  | 47,529               | 44,010                | 3,519                |
| f. MANAGEMENT RESERVE                                      |                           |                           |                                       |                     |                 |                           |                           |                                       |                      |                  |                                  |                                |                    | 4,154                |                       |                      |
| g. TOTAL   | 3,957                     | -2,221                    | 214                                   | -6,178              | -2,435          | 16,806                    | 7,966                     | 8,347                                 | -8,840               | -381             | 0                                | 0                              | 0                  | 51,683               |                       |                      |
| <b>9. RECONCILIATION TO CONTRACT BUDGET BASELINE</b>       |                           |                           |                                       |                     |                 |                           |                           |                                       |                      |                  |                                  |                                |                    |                      |                       |                      |
| a. VARIANCE ADJUSTMENT                                     |                           |                           |                                       |                     |                 |                           |                           |                                       |                      |                  |                                  |                                |                    |                      |                       |                      |
| b. TOTAL CONTRACT VARIANCE                                 |                           |                           |                                       |                     |                 |                           |                           |                                       |                      |                  |                                  |                                |                    |                      |                       |                      |
|  |                           |                           |                                       |                     |                 |                           |                           |                                       | -8,840               | -381             |                                  |                                | 51,683             | 44,010               | 7,674                 |                      |

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 / 04 / 25 |  |
| b. LOCATION (Address and ZIP Code)<br>Richland, WA |  | b. NUMBER<br>RL14788                    |  | b. PHASE  |  | b. TO (YYYYMMDD)<br>2016 / 05 / 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>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) |                           |                               |                |                  |                   |                  |
| 3B - PFP Closure Project                              | 3,957                    | -2,221                   | 214                                     | -6,178          | -2,435      | 16,806                   | 7,966                    | 8,347                                   | -8,840           | -381         | 0                         | 0                             | 0              | 47,529           | 44,010            | 3,519            |
| <b>b. COST OF MONEY</b>                               | 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                               |                          |                          |   |                 |             |                          |                          |   |                  |              |                           |                               |                |                  |                   |                  |
| <b>e. SUBTOTAL (Performance Measurement Baseline)</b> | 3,957                    | -2,221                   | 214                                     | -6,178          | -2,435      | 16,806                   | 7,966                    | 8,347                                   | -8,840           | -381         | 0                         | 0                             | 0              | 47,529           | 44,010            | 3,519            |
| f. MANAGEMENT RESERVE                                 |                          |                          |   |                 |             |                          |                          |   |                  |              |                           |                               |                | 4,154            |                   |                  |
| <b>g. TOTAL</b>                                       | 3,957                    | -2,221                   | 214                                     | -6,178          | -2,435      | 16,806                   | 7,966                    | 8,347                                   | -8,840           | -381         | 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 / 04 / 25 |  |
| b. LOCATION (Address and ZIP Code)<br>Richland, WA |  | b. NUMBER<br>RL14788                    |  | b. PHASE  |  | b. TO (YYYYMMDD)<br>2016 / 05 / 22   |  |
| c. TYPE<br>CPAF                                    |  | d. SHARE RATIO                          |  | c. EVMS ACCEPTANCE<br><input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (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>JUN 2016<br>(4)                               | +2<br>JUL 2016<br>(5) | +3<br>AUG 2016<br>(6) | +4<br>SEP 2016<br>(7) | +5<br>OCT 2016<br>(8) | +6<br>NOV 2016<br>(9) | REMAIN FY17<br>(10)     | FY18<br>(11) | FY19-FY24<br>(12) | AT COMPLETE<br>(13) | (14)     |                          |
| 3B - PFP Closure Project                                    | 1                                  | 27  | 7   | 35                    | 27                    | 71                    | 91                    | 58                    | 673                     | 0            | 0                 | 0                   | 0        | 988                      |
| <b>g. TOTAL DIRECT</b>                                      | <b>1</b>                           | <b>27</b>   | <b>7</b>  | <b>35</b>             | <b>27</b>             | <b>71</b>             | <b>91</b>             | <b>58</b>             | <b>673</b>              | <b>0</b>     | <b>0</b>          | <b>0</b>            | <b>0</b> | <b>988</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>RL_0011_C2 PFP Demolition Capital Asset Project                     | a. FROM<br>(YYYYMMDD)<br>2016 / 04 / 25 |
| b. LOCATION (Address and ZIP Code)<br>Richland, WA | b. NUMBER<br>RL14788                    | b. PHASE   | b. TO<br>(YYYYMMDD)<br>2016 / 05 / 22   |
|  | c. TYPE<br>CPAF                         | d. SHARE RATIO   |   |
|  |   | c. EVMS ACCEPTANCE<br>No            X            Yes            2009 / 09 / 18 |   |

**5. Evaluation**

**Direct Projects**

|              | Budget | Earned | Actuals   | SV in \$ | SV in %     | CV in \$    | CV in % | SPI   | CPI    |
|--------------|--------|--------|-----------|----------|-------------|-------------|---------|-------|--------|
| Current:     | 3,957  | -2,221 | 214       | -6,178   | -156%       | -2,435      | -       | -0.56 | -10.37 |
| Cumulative:  | 16,806 | 7,966  | 8,347     | -8,840   | -53%        | -381        | -5%     | 0.47  | 0.95   |
|              | BAC    | EAC    | VAC in \$ | VAC in % | TCPI to BAC | TCPI to EAC |         |       |        |
| At Complete: | 47,529 | 44,010 | 3,519     | 7%       | 1.01        | 1.11        |         |       |        |

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

**Current Schedule Variance:** The current month negative schedule variance is associated with a point adjustment as a result of implementation of BCR-011C-16-006R0 to ensure compliance with EVMS-IH Requirements, specifically LOI 29.C.2, "LOE Work Packages with insignificant cumulative ACWP reviewed for purposes of preventing false variance reporting". This BCR was processed to modify the earned value type from a select few activities on the RL- 011.C2 project from LOE to Apportioned. This will better align the demolition project management and cross-cutting support activities to the discrete work in support of the demolition of the Plutonium Finishing Plant. Implementation of this BCR resulted in negative BCWP as a point adjustment in the month of May for activities that were previously LOE. Additionally, delay of work scope associated with demolition of the 236-Z Building caused by previous month radiological issues resulting in PFP Management safety pause and stop works, and the Canyon Crane Failure are contributing to the negative variance. The apportioned support activities for consumable materials are also behind schedule due to the delay in associated discrete work scope. As a result of delays in the ready for demolition activities, the C2 CD-4 has been delayed and the TPA milestone M-083-00A will not be met.

**Current Cost Variance:** The current month negative cost variance is associated with a point adjustment resulting from BCR-011C-16-006R0 which was implemented in the current period to ensure compliance with EVMS-IH Requirements, specifically LOI 29.C.2, "LOE Work Packages with insignificant cumulative ACWP reviewed for purposes of preventing false variance reporting". This BCR was processed to modify the earned value type from a select few activities on the RL- 011.C2 project from LOE to Apportioned. This will better align the demolition project management and cross-cutting support activities to the discrete work in support of the demolition of the Plutonium Finishing Plant. Implementation of this BCR resulted in negative BCWP as a point adjustment in the month of May for activities that were previously LOE. Additionally, MSA subcontracted resources arriving to support PFP demolition that had a planned baseline start date of January 2016 are contributing to the negative variance. Because the project is behind schedule in initiating demolition activities, these resources currently have limited work to support which contributes to inability to take performance until the ready for demolition work scope is completed.

**Cumulative 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 and 236-Z, as well as the 236-Z Canyon Crane failure. Once the 236-Z building is ready for demo, the diverted resources will be redirected to support demolition of the ancillary buildings in the fall of 2016. Initiation of demolition of the 236-Z facility is currently forecast for September, 2016, with 242-Z and 234-5Z following thereafter. As a result of delays in the ready for demolition activities, the C2 CD-4 has been delayed and the TPA milestone M-083-00A will not be met. The point adjustment caused by BCR-011C-006R0, discussed in current period variance, contributes to the cumulative variance as well.

**Impact:**

**Schedule Impact:** Progress has been made on getting 234-5Z ready for Cold & Dark resulting in a gain of 5 calendar days since April to the critical path to achieving the TPA Milestone TPA-083-00A, complete PFP facility transition and selected disposition activities, due September 30, 2016. Although there was a 5 day gain this period, the overall schedule delay will not be recovered.

**Cost Impact:** Stop Works, Safety Pauses, PRF Crane failure, and associated recovery actions have impacted the work to ready facilities for demolition. Mitigation actions are being reviewed and when finalized will be put in place to partially recover the cost impact. In addition, the start of mobilization for PFP demolition has been delayed as a result of discrete D&D ready for demolition scope lagging. The current EAC reduction 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 assumed in the PMB. This reduces the amount of demolition and project management labor resources and needed materials, resulting in the reduction of EAC to BCWS values. The projected net EAC impact of (\$14.7K) since April is insignificant.

**Corrective Action:**

**Corrective Action:**

**Schedule:** Actions are being reviewed and will be put in place when finalized to support mitigation of the schedule delays. As a result of impacts from the safety pause in December, 2015, safe restart of high hazard work will be initiated to complete the ready for demolition activities for 234-5Z, 236-Z, 242-Z, and 291-Z to allow demolition of facilities in the PFP complex to begin. (Action: Douglas 9/30/16)

**Schedule:** Get facilities across PFP ready for demo allowing demolition to begin (Cold & Dark and Readiness Assessment). Action Mike Douglas (07/01/2016)

**Schedule:** Safely accelerate decommissioning of 234-5Z, 236-Z, 242-Z, and 291-Z in order to allow demolition of facilities in the PFP complex to begin. Action Mike Douglas (09/30/2016)

**Cost:** Process cost correction to move costs received from purchased equipment from Control Account 011.05.C3.04 to Control Account 011.05.C3.03.01. Action Mike Douglas (06/30/2016)

**Cost:** MSA resources (i.e., Heavy Equipment Operators, Crane Operators, Mechanics, etc.) will be loaned out to other CHPRC and other Hanford contractors when not required for PFP project work and thus offset unnecessary costs to the PFP project. Action: Mike Douglas (9/30/16)

**NOTE:** Corrective actions associated with stop works/safety pauses and 236-Z Canyon Crane failure that are impacting the ability to initiate demolition activities in the RL-011.C2 capital asset project are addressed in the Operations project corrective action plan. Monthly Summary (to include technical causes of VARs, Impacts) and Corrective Action(s).

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

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

1. Schedule Margin Analysis: There is currently no remaining schedule margin in this capital asset account. Schedule margin was lost in February 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. Overall, the C2 project has lost all of its schedule margin.
2. IMS Data dictionary Changes: No change in the month of May
3. Forecast Schedule with No Baseline: No change in the month of May
4. UB Balance: No change in the month of May
5. Negative ACWP: No change in the month of May
6. EAC Analysis: Best Case = EAC; Most Likely = EAC + MR; Worst Case = ECWR or BCWR (whichever is greater) + ACWP + MR + Trend Log values not already included.
7. Negative CV > VAC: No change in the month of May
8. MR Transactions: No change in the month of May
9. Freeze Period Changes: BCR-011C-16-006R0 was implemented in the current period to ensure compliance with EVMS-IH Requirements, specifically LOI 29.C.2, "LOE Work Packages with insignificant cumulative ACWP reviewed for purposes of preventing false variance reporting", this BCR was processed to modify the earned value type from a select few activities on the RL- 011.C2 project from LOE to Apportioned. This will better align the demolition project management and cross-cutting support activities to the discrete work in support of the demolition of the Plutonium Finishing Plant. Implementation of this BCR resulted in negative BCWP as a point adjustment in the month of May for activities that were previously LOE.
10. Retroactive Changes: No change in the month of May
11. EVT Changes: BCR-011C-16-006R0 was implemented in the current period to ensure compliance with EVMS-IH Requirements, specifically LOI 29.C.2, "LOE Work Packages with insignificant cumulative ACWP reviewed for purposes of preventing false variance reporting", this BCR was processed to modify the earned value type from a select few activities on the RL- 011.C2 project from LOE to Apportioned. This will better align the demolition project management and cross-cutting support activities to the discrete work in support of the demolition of the Plutonium Finishing Plant. Implementation of this BCR resulted in negative BCWP as a point adjustment in the month of May for activities that were previously LOE.

**Prepared by:**

**Date:**

**Approved by:**

**Date:**

# Appendix C.2

## Capital Asset Project

### RL-011.C2 Demolition of PFP Facilities



T. E. Bratvold  
Vice President for  
PFP Closure Project

May 2016  
CHPRC-2016-05, Rev. 1  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

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                      | -                         |
| Complete Cold and Dark/Demo Ready activities for 236-Z                    | -                         | -                            | 1                      | -                         |
| Complete Cold and Dark/Demo Ready activities for 242-Z                    | -                         | -                            | 1                      | -                         |
| Complete Cold and Dark/Demo Ready activities for 291-Z                    | -                         | -                            | 1                      | -                         |
| Complete Cold and Dark/Demo Ready activities for PFP Ancillary Facilities | -                         | -                            | 15                     | -                         |
| 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                           | -                         | -                            | 1                      | -                         |
| Complete Demolition of PFP Ancillary Facilities                           | -                         | -                            | 15                     | -                         |
| Turnover Facility to Long Term Surveillance & Maintenance                 | -                         | -                            | -                      | -                         |

### Summary:

The PFP Demolition Project is the final sub-set activity for completing the overall PBS RL-0011, Nuclear Materials Stabilization and Disposition of PFP. Completion of RL-0011.C2 will result in the remaining PFP set of facilities becoming “slab-on-grade” and allow transition of the PFP complex to long-term S&M.

## KEY ACCOMPLISHMENTS

- Drafted a revision to DSA Revision 13 to allow the use of a remotely operated mobile crane within the 236-Z Canyon as a contingency should the installed crane malfunction and not be repairable.

## MAJOR ISSUES

### Issue:

**PRF Canyon floor scrapings from J Pan, staged in collection trays on the Canyon floor expanded resulting in a clear and unanticipated chemical reaction. A previously noted hard substance was observed within the loose debris on J Pan. This hard substance was originally thought to be concrete (congealed, spalled wall fines) but upon further review was believed to be a plasticized material, which was not expected.**

**Corrective Action:**

- Unpackaged and placed previously packaged J Pan wastes back in the PRF Canyon.
- Develop waste packaging instructions for J Pan wastes.
- PFP will perform a visual inspection of waste drums that contain PRF canyon waste prior to shipment from the facility.

**Status:**

- Waste packaging instructions for J Pan wastes were developed and waste has been packaged per the waste packaging instructions.
- PFP is performing 100 percent visual inspections of waste drums that contain PRF canyon waste prior to shipment.
- Waste Shipment of PRF Canyon Waste to CWC has commenced with shipment of Non-J Pan wastes. PNNL analysis of waste samples is complete.
- PNNL analysis of waste samples is complete. Fauske and Associates has completed their evaluation of the potential for a self-accelerating thermal reaction within drums.
- PFP is preparing a final report documenting an evaluation of the PNNL analysis results, the Fauske and Associates evaluation, and an analysis of radiolytic gas generation.

**Issue:**

**On April 28, 2016, the wire rope on the PRF Crane jumped a sheave on the drum causing the rope to jam in the block during re-installation of a canyon strong back. The crane and strong back were placed in a safe configuration while a plan was developed to investigate the issue.**

**Corrective Action:**

- Perform a canyon entry to inspect the wire rope and sheaves.
- Re-string the wire rope back onto the drum and block sheaves.
- Perform wire rope inspection and test functionality of crane.

**Status:**

- Initial inspection of viewable wire rope indicates minimal damage.
- Wire rope has been realigned on the drum.
- Wire rope was realigned on the block, followed by a complete wire rope inspection and functionality test.
- Corrective maintenance was completed on May 18 and crane was returned to service on May 19.

## CORRECTIVE ACTION LOG

| Control Account | Task Title                                   | FY Year/<br>Month | CAM          | Status | Forecast<br>Completion | Actual<br>Completion | Assigned To  |
|-----------------|--|-------------------|--------------|--------|------------------------|----------------------|--------------|
| 011.05.C3.05    | Get PFP Facilities Ready for Demo            | 2016/03           | Mike Douglas | Open   | 7/1/16                 |                      | Mike Douglas |
| 011.05.C3.05    | Broker Subcontracted Resources When Possible | 2016/03           | Mike Douglas | Open   | 9/30/16                |                      | Mike Douglas |
| 011.05.C3.01    | Implement BCR                                | 2016/07           | Mike Douglas | Open   | 5/31/2016              | 5/19/16              | Mike Douglas |

## 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 spotlight chart:</b><br>No major changes to the monthly spotlight chart in the month of <b>May</b> .   |  |   |   |   |                      |         |   |   |         |     |   |         |
| <b>Realized Risks (Risks that are currently impacting project cost/schedule)</b>  |  |   |   |   |                      |         |   |   |         |     |   |         |
| No realized risks identified for RL-0011/WBS-011.05.C3 (CAP.2) in the month of <b>May</b> .   |  |   |   |   |                      |         |   |   |         |     |   |         |
| <b>Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed)</b>   |  |   |   |   |                      |         |   |   |         |     |   |         |
| <b>FY2016 Risk Triggers (Risk could be realized in FY2016)</b>  |  |   |   |   |                      |         |   |   |         |     |   |         |
| 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 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 FY2016.   |                      |         |   |   |         |     |   |         |
|   |  |   |   | <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 <b>May</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.</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<br>of Equipment Takes<br>Longer Than Planned   | Controlled demolition of equipment, gloveboxes, and portions of the cross-cutting 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> Medium (26% to 74%)<br><b>Worst Case Impacts:</b> \$1.5 million, 30 days                              |  |  | <b>Risk Trigger:</b> During pre-demolition/demolition activities in FY2016. Dates tracked in the FES.   |                      |         |   |   |         |     |   |         |
|   |  |   |   | <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>6/01/17</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>Ongoing</td> <td>N/A</td> </tr> <tr> <td>Apply fixative to internals of equipment intended to be removed during demolition to contain contamination.</td> <td>Ongoing</td> <td>N/A</td> </tr> </tbody> </table> <p><b>Mitigation Assessment:</b><br/>No changes in the month of <b>May</b>.<br/>At this time no alternative course of actions needed.</p>                             | Mitigation action(s) | FC Date | % | Identify and pre-rig equipment with lifting slings. | 6/01/17 | 50  | Initiate discussions early in the demo planning of the equipment being left in place for removal during demolish. | Ongoing |
| Mitigation action(s)  | FC Date  | %   |   |   |                      |         |   |   |         |     |   |         |
| Identify and pre-rig equipment with lifting slings.   | 6/01/17  | 50  |   |   |                      |         |   |   |         |     |   |         |
| Initiate discussions early in the demo planning of the equipment being left in place for removal during demolish.   | Ongoing  | N/A   |   |   |                      |         |   |   |         |     |   |         |
| Apply fixative to internals of equipment intended to be removed during demolition to contain contamination.   | Ongoing  | N/A   |   |   |                      |         |   |   |         |     |   |         |
| <b>High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)</b>   |  |   |   |   |                      |         |   |   |         |     |   |         |
| <b>FY2016 Risk Triggers (Risk could be realized in FY2016)</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. |  |  | <b>Risk Trigger:</b> During pre-demolition/demolition activities in FY2016. Dates tracked in the FES.   |                      |         |   |   |         |     |   |         |
|   |  |   |   | <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 <b>May</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 develop work plans to incorporate required controls.<br/>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   |   |   |                      |         |   |   |         |     |   |         |
| <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. |  |   |   |   |                      |         |   |   |         |     |   |         |

| Risk Title<br>Risk Owner                     | Unmitigated Risk Impacts   | Assessment |       | Comments |
|--|--|------------|-------|----------|
|  |  | Month      | Trend |          |
| <b>RL-0011/WBS-011.05.C3 (CAP.2)</b>         |  |            |       |          |
| PFP-DEMO-18:<br>Level of Readiness<br>Effort | <p>PFP Demolition activities and hazard categorization provide for a Readiness Assessment; 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.</p> <p><u>CHPRC Comment:</u> The rework required between the first submittal on May 26, 2015, through the resubmittal on August 27, 2015, (Reference 2) and subsequent approval on October 8, 2015, (Reference 1) 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.</p> |            |       |          |

**Critical Path Schedule**

The PFP Critical Schedule Path is a resource driven float path. The current E4 team in the 234-5Z duct level completes E4 duct and filterbox removals, then transitions to miscellaneous decon throughout 234-5Z to get it into a ready for demo state. Demolition of 234-5Z will occur in the following sequence: 234-5ZA, Frontside, A-Labs, Backside Rooms/PPSL, RMA Process Lines, RMC Process Lines, and finally the RADTU & Basement areas. Once complete, the final step is stabilization of the PFP site leading to completion of the final Tri-Party Agreement milestone – M-083-00A - *PFP Facility Transition and Selection Disposition Activities*.

**MILESTONE STATUS**

Hanford Federal Facility Agreement and Consent Order (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 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 | 09/30/16 |             | 7/19/17       | Stop works associated with PremAire breathing air suits/hoses in support of in-situ size reduction efforts, stop works associated with intrusive work in the 234-5Z duct level, safety pause associated with a radiological event, and reduction to five field work teams vs. eight, and increased durations to the E4 duct removal efforts caused the Tri-Party Agreement milestone projected completion date to gain 8 calendar days from the forecast date in the March report. This is as a result of identifying efficiencies to work parallel scope in the PRF canyon. As the PFP Project continues to make progress on the behind schedule critical path work scope being performed, efficiencies will continue to be evaluated and implemented to recover schedule delays. However, this Tri-Party Agreement completion is not expected to be met. |

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

None identified at this time.

# RL-011.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



May 2016  
CHPRC-2016-05, Rev. 1  
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 / 04 / 25 |  |
| b. LOCATION (Address and ZIP Code)<br>Richland, WA |  | b. NUMBER<br>RL14788                    |  | b. PHASE   |  | b. TO (YYYYMMDD)<br>2016 / 05 / 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>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>53,164 | g. CONTRACT CEILING<br>56,683 | h. ESTIMATED CONTRACT CEILING<br>53,164 | 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 Manager |  | d. DATE SIGNED (YYYYMMDD) |
| a. BEST CASE                           | 44,010                                |                          |              |  |                                    |  |                           |
| b. WORST CASE                          | 52,689                                |                          |              |  |                                    |  |                           |
| c. MOST LIKELY                         | 48,164                                | 51,683                   | 3,519        | c. SIGNATURE   |                                    |  |                           |

|  |                           |                           |                                       |                     |                 |                           |                           |                                       |                      |                  |                                  |                                |                    |                      |                       |                      |
|--|---------------------------|---------------------------|---------------------------------------|---------------------|-----------------|---------------------------|---------------------------|---------------------------------------|----------------------|------------------|----------------------------------|--------------------------------|--------------------|----------------------|-----------------------|----------------------|
| <b>8. PERFORMANCE DATA</b>                                 |                           |                           |                                       |                     |                 |                           |                           |                                       |                      |                  |                                  |                                |                    |                      |                       |                      |
| CAPN.PBS<br>Control Account.PARS 2 WBS (2)<br><br>ITEM (1) | <b>CURRENT PERIOD</b>     |                           |                                       |                     |                 | <b>CUMULATIVE TO DATE</b> |                           |                                       |                      |                  | <b>REPROGRAMMING ADJUSTMENTS</b> |                                |                    | <b>AT COMPLETION</b> |                       |                      |
|  | <b>BUDGETED COST</b>      |                           | <b>ACTUAL COST WORK PERFORMED (4)</b> | <b>VARIANCE</b>     |                 | <b>BUDGETED COST</b>      |                           | <b>ACTUAL COST WORK PERFORMED (9)</b> | <b>VARIANCE</b>      |                  | <b>COST VARIANCE (12a)</b>       | <b>SCHEDULE VARIANCE (12b)</b> | <b>BUDGET (13)</b> | <b>BUDGETED (14)</b> | <b>ESTIMATED (15)</b> | <b>VARIANCE (16)</b> |
|  | <b>WORK SCHEDULED (2)</b> | <b>WORK PERFORMED (3)</b> |                                       | <b>SCHEDULE (5)</b> | <b>COST (6)</b> | <b>WORK SCHEDULED (7)</b> | <b>WORK PERFORMED (8)</b> |                                       | <b>SCHEDULE (10)</b> | <b>COST (11)</b> |                                  |                                |                    |                      |                       |                      |
| RL-0011 Nuclear Mat Stab & Disp                            |                           |                           |                                       |                     |                 |                           |                           |                                       |                      |                  |                                  |                                |                    |                      |                       |                      |
| RL_0011_C2.05 Disposition PFP                              | 3,957                     | -2,221                    | 214                                   | -6,178              | -2,435          | 16,806                    | 7,966                     | 8,347                                 | -8,840               | -381             | 0                                | 0                              | 0                  | 47,529               | 44,010                | 3,519                |
| 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  | 3,957                     | -2,221                    | 214                                   | -6,178              | -2,435          | 16,806                    | 7,966                     | 8,347                                 | -8,840               | -381             | 0                                | 0                              | 0                  | 47,529               | 44,010                | 3,519                |
| f. MANAGEMENT RESERVE                                      |                           |                           |                                       |                     |                 |                           |                           |                                       |                      |                  |                                  |                                |                    | 4,154                |                       |                      |
| g. TOTAL   | 3,957                     | -2,221                    | 214                                   | -6,178              | -2,435          | 16,806                    | 7,966                     | 8,347                                 | -8,840               | -381             | 0                                | 0                              | 0                  | 51,683               |                       |                      |
| <b>9. RECONCILIATION TO CONTRACT BUDGET BASELINE</b>       |                           |                           |                                       |                     |                 |                           |                           |                                       |                      |                  |                                  |                                |                    |                      |                       |                      |
| a. VARIANCE ADJUSTMENT                                     |                           |                           |                                       |                     |                 |                           |                           |                                       |                      |                  |                                  |                                |                    |                      |                       |                      |
| b. TOTAL CONTRACT VARIANCE                                 |                           |                           |                                       |                     |                 |                           |                           |                                       |                      |                  |                                  |                                |                    |                      |                       |                      |
|  |                           |                           |                                       |                     |                 |                           |                           |                                       | -8,840               | -381             |                                  |                                |                    | 51,683               | 44,010                | 7,674                |

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 / 04 / 25 |  |
| b. LOCATION (Address and ZIP Code)<br>Richland, WA |  | b. NUMBER<br>RL14788                    |  | b. PHASE  |  | b. TO (YYYYMMDD)<br>2016 / 05 / 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>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) |                           |                               |                |                  |                   |                  |
| 3B - PFP Closure Project                              | 3,957                    | -2,221                   | 214                                     | -6,178          | -2,435      | 16,806                   | 7,966                    | 8,347                                   | -8,840           | -381         | 0                         | 0                             | 0              | 47,529           | 44,010            | 3,519            |
| <b>b. COST OF MONEY</b>                               | 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                               |                          |                          |   |                 |             |                          |                          |   |                  |              |                           |                               |                |                  |                   |                  |
| <b>e. SUBTOTAL (Performance Measurement Baseline)</b> | 3,957                    | -2,221                   | 214                                     | -6,178          | -2,435      | 16,806                   | 7,966                    | 8,347                                   | -8,840           | -381         | 0                         | 0                             | 0              | 47,529           | 44,010            | 3,519            |
| f. MANAGEMENT RESERVE                                 |                          |                          |   |                 |             |                          |                          |   |                  |              |                           |                               |                | 4,154            |                   |                  |
| <b>g. TOTAL</b>                                       | 3,957                    | -2,221                   | 214                                     | -6,178          | -2,435      | 16,806                   | 7,966                    | 8,347                                   | -8,840           | -381         | 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 / 04 / 25 |  |
| b. LOCATION (Address and ZIP Code)<br>Richland, WA |  | b. NUMBER<br>RL14788                    |                | b. PHASE  |  |  | b. TO (YYYYMMDD)<br>2016 / 05 / 22   |  |
|  |  | c. TYPE<br>CPAF                         | d. SHARE RATIO | c. EVMS ACCEPTANCE<br><input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (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>JUN 2016<br>(4)                               | +2<br>JUL 2016<br>(5) | +3<br>AUG 2016<br>(6) | +4<br>SEP 2016<br>(7) | +5<br>OCT 2016<br>(8) | +6<br>NOV 2016<br>(9) | REMAIN FY17<br>(10)     | FY18<br>(11) | FY19-FY24<br>(12) | AT COMPLETE<br>(13) | (14)     |                          |
| 3B - PFP Closure Project                                    | 1                                  | 27  | 7   | 35                    | 27                    | 71                    | 91                    | 58                    | 673                     | 0            | 0                 | 0                   | 0        | 988                      |
| <b>g. TOTAL DIRECT</b>                                      | <b>1</b>                           | <b>27</b>   | <b>7</b>  | <b>35</b>             | <b>27</b>             | <b>71</b>             | <b>91</b>             | <b>58</b>             | <b>673</b>              | <b>0</b>     | <b>0</b>          | <b>0</b>            | <b>0</b> | <b>988</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>      |  |  |
| <b>a. NAME</b><br>CH2M HILL Plateau Remediation Company   |  | <b>a. NAME</b><br>Plateau Remediation Contract |                       | <b>a. NAME</b><br>RL_0011_C2 PFP Demolition Capital Asset Project |  |  | <b>a. FROM</b><br>(YYYYMMDD) |  |  |
| <b>b. LOCATION (Address and ZIP Code)</b><br>Richland, WA |  | <b>b. NUMBER</b><br>RL14788                    |                       | <b>b. PHASE</b>   |  |  | 2016 / 04 / 25               |  |  |
|   |  | <b>c. TYPE</b><br>CPAF                         | <b>d. SHARE RATIO</b> | <b>c. EVMS ACCEPTANCE</b>   |  |  | <b>b. TO</b><br>(YYYYMMDD)   |  |  |
|   |  |  |                       | No            X            Yes            2009 / 09 / 18          |  |  | 2016 / 05 / 22               |  |  |

**5. Evaluation**

**Direct Projects**

|              | Budget | Earned | Actuals   | SV in \$ | SV in %     | CV in \$    | CV in % | SPI   | CPI    |
|--------------|--------|--------|-----------|----------|-------------|-------------|---------|-------|--------|
| Current:     | 3,957  | -2,221 | 214       | -6,178   | -156%       | -2,435      | -       | -0.56 | -10.37 |
| Cumulative:  | 16,806 | 7,966  | 8,347     | -8,840   | -53%        | -381        | -5%     | 0.47  | 0.95   |
|              | BAC    | EAC    | VAC in \$ | VAC in % | TCPI to BAC | TCPI to EAC |         |       |        |
| At Complete: | 47,529 | 44,010 | 3,519     | 7%       | 1.01        | 1.11        |         |       |        |

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

**Current Schedule Variance:** The current month negative schedule variance is associated with a point adjustment as a result of implementation of BCR-011C-16-006R0 to ensure compliance with EVMS-IH Requirements, specifically LOI 29.C.2, "LOE Work Packages with insignificant cumulative ACWP reviewed for purposes of preventing false variance reporting". This BCR was processed to modify the earned value type from a select few activities on the RL- 011.C2 project from LOE to Apportioned. This will better align the demolition project management and cross-cutting support activities to the discrete work in support of the demolition of the Plutonium Finishing Plant. Implementation of this BCR resulted in negative BCWP as a point adjustment in the month of May for activities that were previously LOE. Additionally, delay of work scope associated with demolition of the 236-Z Building caused by previous month radiological issues resulting in PFP Management safety pause and stop works, and the Canyon Crane Failure are contributing to the negative variance. The apportioned support activities for consumable materials are also behind schedule due to the delay in associated discrete work scope. As a result of delays in the ready for demolition activities, the C2 CD-4 has been delayed and the TPA milestone M-083-00A will not be met.

**Current Cost Variance:** The current month negative cost variance is associated with a point adjustment resulting from BCR-011C-16-006R0 which was implemented in the current period to ensure compliance with EVMS-IH Requirements, specifically LOI 29.C.2, "LOE Work Packages with insignificant cumulative ACWP reviewed for purposes of preventing false variance reporting". This BCR was processed to modify the earned value type from a select few activities on the RL- 011.C2 project from LOE to Apportioned. This will better align the demolition project management and cross-cutting support activities to the discrete work in support of the demolition of the Plutonium Finishing Plant. Implementation of this BCR resulted in negative BCWP as a point adjustment in the month of May for activities that were previously LOE. Additionally, MSA subcontracted resources arriving to support PFP demolition that had a planned baseline start date of January 2016 are contributing to the negative variance. Because the project is behind schedule in initiating demolition activities, these resources currently have limited work to support which contributes to inability to take performance until the ready for demolition work scope is completed.

**Cumulative 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 and 236-Z, as well as the 236-Z Canyon Crane failure. Once the 236-Z building is ready for demo, the diverted resources will be redirected to support demolition of the ancillary buildings in the fall of 2016. Initiation of demolition of the 236-Z facility is currently forecast for September, 2016, with 242-Z and 234-5Z following thereafter. As a result of delays in the ready for demolition activities, the C2 CD-4 has been delayed and the TPA milestone M-083-00A will not be met. The point adjustment caused by BCR-011C-006R0, discussed in current period variance, contributes to the cumulative variance as well.

**Impact:**

**Schedule Impact:** Progress has been made on getting 234-5Z ready for Cold & Dark resulting in a gain of 5 calendar days since April to the critical path to achieving the TPA Milestone TPA-083-00A, complete PFP facility transition and selected disposition activities, due September 30, 2016. Although there was a 5 day gain this period, the overall schedule delay will not be recovered.

**Cost Impact:** Stop Works, Safety Pauses, PRF Crane failure, and associated recovery actions have impacted the work to ready facilities for demolition. Mitigation actions are being reviewed and when finalized will be put in place to partially recover the cost impact. In addition, the start of mobilization for PFP demolition has been delayed as a result of discrete D&D ready for demolition scope lagging. The current EAC reduction 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 assumed in the PMB. This reduces the amount of demolition and project management labor resources and needed materials, resulting in the reduction of EAC to BCWS values. The projected net EAC impact of (\$14.7K) since April is insignificant.

**Corrective Action:**

**Corrective Action:**

**Schedule:** Actions are being reviewed and will be put in place when finalized to support mitigation of the schedule delays. As a result of impacts from the safety pause in December, 2015, safe restart of high hazard work will be initiated to complete the ready for demolition activities for 234-5Z, 236-Z, 242-Z, and 291-Z to allow demolition of facilities in the PFP complex to begin. (Action: Douglas 9/30/16)

**Schedule:** Get facilities across PFP ready for demo allowing demolition to begin (Cold & Dark and Readiness Assessment). Action Mike Douglas (07/01/2016)

**Schedule:** Safely accelerate decommissioning of 234-5Z, 236-Z, 242-Z, and 291-Z in order to allow demolition of facilities in the PFP complex to begin. Action Mike Douglas (09/30/2016)

**Cost:** Process cost correction to move costs received from purchased equipment from Control Account 011.05.C3.04 to Control Account 011.05.C3.03.01. Action Mike Douglas (06/30/2016)

**Cost:** MSA resources (i.e., Heavy Equipment Operators, Crane Operators, Mechanics, etc.) will be loaned out to other CHPRC and other Hanford contractors when not required for PFP project work and thus offset unnecessary costs to the PFP project. Action: Mike Douglas (9/30/16)

**NOTE:** Corrective actions associated with stop works/safety pauses and 236-Z Canyon Crane failure that are impacting the ability to initiate demolition activities in the RL-011.C2 capital asset project are addressed in the Operations project corrective action plan. Monthly Summary (to include technical causes of VARs, Impacts) and Corrective Action(s).

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

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

1. Schedule Margin Analysis: There is currently no remaining schedule margin in this capital asset account. Schedule margin was lost in February 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. Overall, the C2 project has lost all of its schedule margin.
2. IMS Data dictionary Changes: No change in the month of May
3. Forecast Schedule with No Baseline: No change in the month of May
4. UB Balance: No change in the month of May
5. Negative ACWP: No change in the month of May
6. EAC Analysis: Best Case = EAC; Most Likely = EAC + MR; Worst Case = ECWR or BCWR (whichever is greater) + ACWP + MR + Trend Log values not already included.
7. Negative CV > VAC: No change in the month of May
8. MR Transactions: No change in the month of May
9. Freeze Period Changes: BCR-011C-16-006R0 was implemented in the current period to ensure compliance with EVMS-IH Requirements, specifically LOI 29.C.2, "LOE Work Packages with insignificant cumulative ACWP reviewed for purposes of preventing false variance reporting", this BCR was processed to modify the earned value type from a select few activities on the RL- 011.C2 project from LOE to Apportioned. This will better align the demolition project management and cross-cutting support activities to the discrete work in support of the demolition of the Plutonium Finishing Plant. Implementation of this BCR resulted in negative BCWP as a point adjustment in the month of May for activities that were previously LOE.
10. Retroactive Changes: No change in the month of May
11. EVT Changes: BCR-011C-16-006R0 was implemented in the current period to ensure compliance with EVMS-IH Requirements, specifically LOI 29.C.2, "LOE Work Packages with insignificant cumulative ACWP reviewed for purposes of preventing false variance reporting", this BCR was processed to modify the earned value type from a select few activities on the RL- 011.C2 project from LOE to Apportioned. This will better align the demolition project management and cross-cutting support activities to the discrete work in support of the demolition of the Plutonium Finishing Plant. Implementation of this BCR resulted in negative BCWP as a point adjustment in the month of May for activities that were previously LOE.

**Prepared by:**

**Date:**

**Approved by:**

**Date:**