

# Section A

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



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## PROJECT SUMMARY

The Plutonium Finishing Plant (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	2 gloveboxes	167 gloveboxes/hoods
KPP Rooms/Areas Dispositioned	-	53 rooms/areas
Asbestos/ACM Removed	-	16,268 feet
Process Vacuum Piping Removed	-	1,389 feet
Process Transfer Line Removed	-	594 feet
Pencil Tank Units Removed	5	85 pencil tank units
Buildings Ready for Demo	-	32 structures
Buildings Demolished or Relocated	1 structure	32 structures
Non-radioactive Waste Shipped	- m <sup>3</sup>	35 m <sup>3</sup>
TRU/TRU-M Shipped	3 m <sup>3</sup>	898 m <sup>3</sup>
LLW/MLLW Shipped	131 m <sup>3</sup>	3,725 m <sup>3</sup>

There were no lost or restricted workday cases this period.

D&D mission progress at PFP slowed during May, with D&D field work teams dispatched to HAMMER training for two full weeks to complete most of the required annual training as a block. This is expected to minimize disruption and schedule impacts throughout the year, as individual team members would have been scheduled for multiple training courses on various dates. The week following completion of block training, intrusive D&D work was suspended as additional repairs were completed on several exhaust fans. These impacts were resolved by the end of the fiscal month, and June progress is expected to be close to plan.

Despite the disruption to D&D work, Glovebox HC-21A was transferred to Solid Waste Operations, along with the first of three sections of the long HC-2 conveyor, bringing the total gloveboxes removed to date to 167 (72 percent). Of 16 process gloveboxes originally installed in Rooms 230A, 230B, and 230C, only one section of the HC-2 conveyor remains to be removed prior to miscellaneous cleanout and Key Performance Parameter closure of these three rooms.

Shipment of demolition debris from the site of the former PFP Vault Complex was completed and demobilization is in progress.

Strong progress continued in PRF. Completing size reduction of pencil tank assembly 18 brings the total PRF canyon pencil tank units completed to 40%. Substantial progress was made in isolation and cleanout of Miscellaneous Treatment and Column gloveboxes.

Evaluation and implementation of the three breakthrough initiatives continued. All initiatives have the potential to accelerate schedule and reduce cost (life cycle).

Schedule and cost performance fell below plan this period.

## EMS Objectives and Target Status

Objective #	Objective	Target	Actions to Achieve Target	Due Date	Status
12-EMS-PFP-OB1-T1	Reduce generation/toxicity of waste through spill reduction	Reduce likelihood of hydraulic spills from D&D work at PFP	Review history of D&D hydraulic failures	12/30/2011	100%
			Identify types of failure and impact	03/29/2012	100%
			Research improved hydraulic line technology	06/29/2012	80%
			Report recommendations to management	07/30/2012	
12-EMS-PFP-OB2-T1	Reduce vehicle miles/greenhouse gas emissions by use of mass transit	Formally request Ben Franklin Transit (BFT) bus service to 200W/PFP	Formally request BFT/CHPRC to implement	10/31/2011	100%
			Conduct tour/employee meetings with BFT	11/01/2011	100%
			Formally request proposal from BFT	11/24/2011	100%
12-EMS-PFP-OB3-T1	Reduce radioactive air emissions from open air demolition of 236-Z	Decontamination of 236-Z Building canyon	Review decontamination methods	12/30/2011	100%
			Evaluate selected method for air emissions	06/30/2012	40%
			Evaluate method's ability for source reduction	08/31/2012	

## TARGET ZERO PERFORMANCE

	Current Month	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	5	N/A
Total Recordable Injuries	1	7	<b>Base</b> – 5/23/2012 – Employee experienced a fracture to their left finger when it was pinched in the lid of the cart. (22770)
First Aid Cases	5	68	<p><b>Base</b> – 5/1/2012 – Employee received an abrasion to their head when they bumped their head on top of the doorway. (22754)</p> <p><b>Base</b> – 5/8/2012 – Employee received a contusion to their left arm when they hit their arm on a cabinet. (22764)</p> <p><b>Base</b> – 5/11/2012 – Employee experienced strain to their lower back while working on a fan motor. (22766)</p> <p><b>Base</b> – 5/29/2012 – Employee received an abrasion to their left arm. (22771)</p> <p><b>Base</b> - 5/31/2012 – Employee experienced a strain to their left arm. (22777)</p>
Near Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

### ARRA

#### 11.05 Disposition PFP Facility – ARRA

- In Room 235A-2 – the work platform was removed and planning was completed to mechanically isolate and cleanout all of the gloveboxes.
- In Room 235A-3 - the removal of the last section of 2” process vacuum line between HA-9A and HA-9C, removal of the north mezzanine section, and modification to Door 708 to facility glovebox removal was completed.
- In Room 228B - the mechanical isolation of HC-12S and HC-13MD was started.
- In Room 228C, the mechanical isolation and internal process equipment removal for gloveboxes HC-17P, HC-17DC, and HC-17SBB continued.
- In Room 230B, Room 170 - glovebox HC-21A was removed.
- Conveyor Section HC-2C was removed from the glovebox line and staged in Room 236
- All teams supported block training

### Base

#### 11.02 Maintain Safe & Compliant PFP

- 291-Z Exhaust Fans
  - Completed EF-5 weld repairs.
  - Replaced the motor on EF-7
  - Replaced and torqued bearing bolts on EF-2, 4, 6, &7.
  - Installed new belt and sheave on EF-6
  - Continued weekly fan vibration and thermal monitoring
  - Completed vibration testing of ET-8 & 9.
- CHPRC-01637, “Justification for Continued Operation, Building 234-5Z Confinement Ventilation System” was released for implementation and the implementation plan has been drafted. Implementation completion is due September 24, 2012.

#### 11.05 Disposition PFP Facility

##### Backside Rooms (Rooms 158-172) D&D

- Room 166 D&D
  - Room 166 GB Mechanical Isolation:
    - Initiated cleanout of the 166-1, 2 hoods
    - Sampled and removed unknown material discovered in 166-1 hood
    - Approved and released work package for removal of Room 266 shield wall
- Electrical isolation of Backside Rooms:
  - Progressed electrical intrusive investigation for isolation of the Room 169 and Room 170 gloveboxes. The effort now 80% complete. Isolation of these gloveboxes represents the final leg for isolation of the Backside Room areas.

##### Disposition PFP (234-5Z) Facility

- Process vacuum piping removal is just over 40 percent complete with 1,405 total feet removed.

##### 2736Z/ZB Vault Complex

- Demolition and site demobilization continued on 2736-ZB Complex. There are only punch list items remaining.

**Plutonium Reclamation Facility (PRF)**

- The segments from Pencil Tank Assembly 18 (Tank 18) were sealed out of the PRF canyon.
- Mechanical isolation of the Miscellaneous Treatment (MT) gloveboxes continued. Removal of the abandon steam line was initiated.
- Removal of the mechanical service lines around the 3rd floor criticality drain continued. Hot taps and associated equipment were installed for the draining of the chemical lines.

**MAJOR ISSUES**

None

### RISK MANAGEMENT STATUS

Unassigned Risk  
 Risk Passed  
 New Risk  
 Change

Working - No Concerns  
 Working - Concern  
 Working - Critical

Increased Confidence  
 No Change  
 Decreased Confidence

Risk Title	Risk Strategy/Handling	Assessment		Comments
		Month	Trend	
<b>RL-011/WBS 011</b>				
PFP-003: More Extensive Cleanout/Decon Required	Develop and implement a detailed process facility characterization plan <i>into the field execution schedule</i> . Determine and obtain approval for ready-for-demolition criteria (contamination removal/cleanup endpoints prior to building demolition). Early characterization provides an opportunity to avoid project schedule impact; however, cost impacts remain.			Development of a detailed PFP-wide characterization plan is <i>underway</i> to further define ready-for-demolition criteria for the Plutonium Reclamation Facility (236-Z), the most challenging of the facilities. <i>During survey of 2736-ZB slab contamination was discovered.</i>
PFP-004, Risk of PRF Canyon D&D cost/schedule growth	Complete detailed planning/engineering for D&D of PRF canyon, particularly pencil tank removal and canyon decontamination.			The PRF canyon crane continued to operate as expected in <i>May</i> . Pencil tank disposition <i>continued work mid-month</i> due to management critique of April's events.
PFP-009: Problems with Aging Building Systems/Components Impacts D&D	Perform critical system reliability assessments for all of the PFP safety and essential systems; procure critical spares; maintain existing redundancies; repair or replace equipment as failures occur and complete planned facility modifications.			Repairs of exhaust fans continue; in addition interim issues were identified during vibration analysis.  After engineering evaluation of the water wall removal between 228A/B they exposed a structure deficiency causing RMC to suspend work and an evaluation is underway to increase support between the two walls.
PFP-008: Unexpected High Concentration TRU Material Holdup Discovered	Utilize supplemental NDA and other characterization techniques to identify areas of concern early in the project. Discuss potential response actions and administrative controls with Safeguards and Security, and proceduralize them as needed to guide the project in responding in the event unexpected material is identified.			Planning is continuing to further evaluate the disposition path for the section of piping that was discovered to have higher than expected material holdup.
PFP-042, Increased Attrition Impacts Availability of Qualified Resources  PRC-021A, Workforce restructuring caused by funding changes	Revise project schedules and work planning documents around workforce restructuring timelines. Work with other contractors to minimize impacts associated with Bump and Roll.			Based on FY13 baseline update guidance projections PFP is initiating workforce restructuring to incorporate into baseline with interface management between other contractors to identify potential bump and roll impacts to the project.
PFP-006: Overall D4 Schedule Impacts from Interferences Between Subprojects	Ensure that activity schedules for all subprojects are integrated and are detailed enough to identify and avoid possible conflicts, and maintain coordination between closely related efforts that could overlap or that use the same resources.			This risk will no longer be reported next month pending unforeseen events.
PFP-064 OPP: Reduced Size Reduction Required Consistent With SLB2 Packaging	Implementation of the use of SLB-2s has been identified as a site wide initiative by CHPRC and RL. A specific plan of action was developed and is being executed to support this opportunity.			This opportunity will continue to be tracked until ongoing efforts to implement miscellaneous debris in SLB2's are complete, and incorporated into the project baseline.
PRC-020, Weather Delays	As weather impacts operations, workarounds are continually developed to re-schedule work activities.			This risk will continue to be tracked until final surveys are complete since there is a possibility of weather impacting capping over contaminated spots.

## PROJECT BASELINE PERFORMANCE

### Current Month

### (\$M)

WBS 011/RL-0011 Nuclear Matl Stab & Disp PFP	Budgeted Cost of Work Scheduled (BCWS)	Budgeted Cost of Work Performed (BCWP)	Actual Cost of Work Performed (ACWP)	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
<b>ARRA</b>	1.8	0.6	1.6	(1.3)	-70.0	(1.0)	-186.8
<b>Base</b>	<u>9.7</u>	<u>8.3</u>	<u>10.3</u>	<u>(1.4)</u>	-14.2	<u>(2.0)</u>	-24.3
<b>Total</b>	<b>11.5</b>	<b>8.9</b>	<b>11.9</b>	<b>(2.7)</b>	<b>-23.1</b>	<b>(3.0)</b>	<b>-34.4</b>

Numbers are rounded to the nearest \$0.1M

#### ARRA

##### CM Schedule Variance: (-\$1.3M/-70.0%)

The schedule variance results from D&D field work teams dispatched to HAMMER training for two full weeks to complete most of the required annual training in a single block. The week following completion of block training, intrusive D&D work was suspended as additional repairs were completed on the EF-7 Fan.

##### CM Cost Variance: (-\$1.0M/-186.8%)

The cost variance results from the inability of D&D field work teams to earn progress, due to the reasons listed in the schedule variance explanation.

#### Base

##### CM Schedule Variance: (-\$1.4M/-14.2%)

The schedule variance is primarily due to D&D field work teams dispatched to HAMMER training for two full weeks to complete most of the required annual training in a single block. The week following completion of block training, intrusive D&D work was suspended as additional repairs were completed on the EF-7 Fan. The suspension of field work activities in PRF also contributed to the variance.

##### CM Cost Variance: (-\$2.0M/-24.3%)

The cost variance results from the inability of D&D field work teams to earn progress, due to the reasons listed in the schedule variance explanation. Also contributing to the variance are higher cost to decontaminate and down-post the ZB-Complex demolition area, costs to repair/maintain the 291-Z EF-7 Exhaust Fan, block training, and MSC rate increases (retroactive to October 1, 2012).



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

WBS 011/ RL-0011 Nuclear Matl Stab & Disp PFP	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Variance at Completion (VAC)
<b>ARRA</b>	288.5	282.9	292.8	(5.6)	-2.0	(9.9)	-3.5	290.9	294.1	(3.1)
<b>Base</b>	<u>207.8</u>	<u>207.9</u>	<u>211.6</u>	<u>0.1</u>	0.0	<u>(3.7)</u>	-1.8	<u>600.7</u>	<u>604.2</u>	<u>(3.4)</u>
<b>Total</b>	<b>496.3</b>	<b>490.7</b>	<b>504.3</b>	<b>(5.6)</b>	<b>-1.1</b>	<b>(13.6)</b>	<b>-2.8</b>	<b>891.7</b>	<b>898.2</b>	<b>(6.5)</b>

Numbers are rounded to the nearest \$0.1M

### ARRA

#### CTD Schedule Performance: (-\$5.6M/-2.0%)

The schedule variance is within reporting thresholds.

#### CTD Cost Performance: (-\$9.9M/-3.5%)

The cost variance is within reporting thresholds.

### Base

#### CTD Schedule Variance (+\$0.1M/+0.0%)

The schedule variance is within reporting thresholds.

#### CTD Cost Variance (-\$3.7M/-1.8%)

The cost variance is within reporting thresholds.

#### Variance at Completion (-\$6.5M/-0.7%)

The variance at completion is within reporting threshold.

**Contract Performance Report Formats are provided in Appendix A and Appendix A-1.**

#### Estimate at Completion (EAC)

The BAC and EAC include FY2009 through FY2018, the PRC contract period.

The EAC changes from April to May, for both ARRA and Base, are within reporting thresholds.



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

WBS 011/RL-0011 Nuclear Matl Stab & Disp PFP	FY2012		
	Projected Funding	Spending Forecast	Spend Variance
<b>ARRA</b>	33.4	33.4	0.0
<b>Base</b>	92.9	91.7	1.1
<b>RL-0011 Total</b>	<b>126.3</b>	<b>125.1</b>	<b>1.2</b>

Numbers are rounded to the nearest \$0.1M

### Funds/Variance Analysis

Funding includes FY2011 carryover and FY2012 new Budget Authority.

### Critical Path Schedule

Critical Path analysis can be provided upon request.

### Baseline Change Requests

None

## MILESTONE STATUS

None at this time.

## SELF-PERFORMED WORK

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

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

None identified at this time.