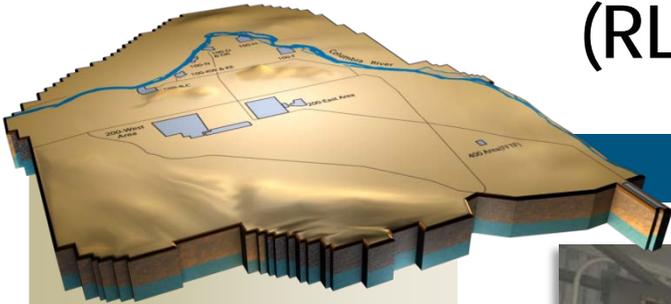


Section A

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



Monthly Performance Report

J.W. Long
Vice President and
Project Manager for
PFP Closure Project



Process Equipment Removal from Glovebox HC-15ABC



Room 235A-1, Removing internal process equipment from HA-14DC and HA-14CC

August 2011
CHPRC-2011-08, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

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

American Recovery and Reinvestment Act (ARRA)

Removal of plutonium-contaminated process equipment continued as a top priority in readying the PFP Complex for demolition, with a particular focus on removal of gloveboxes and associated piping and ductwork from the process and lab areas. Glovebox Deactivation, Decommission, Decontamination, and Demolition (D&D) is complete in the backside vault rooms, Standards Laboratory, Analytical Laboratory, and the Radioactive Acid Digestion Test Unit (RADTU). A total of 130 gloveboxes have been removed to date with Recovery Act Funds. Of these, 120 have been shipped out of PFP for treatment or disposal and one has been set aside and staged for size reduction and disposal as transuranic (TRU) waste. Two gloveboxes (179-10 and 179-12) were shipped to an offsite treatment facility for size reduction.

The 2721-Z, 2731-ZA and 2736-ZC buildings were certified Cold and Dark, with 2731-ZA and 2736-ZC also declared ready for demolition. CHPRC D&D plans to demolish the four-building PFP Vault Complex and two ancillary structures and complete waste load-out by the end of December.

Final area cleanout is continuing throughout the three PFP laboratories and backside vault rooms of 234-5Z. To date, 11 of the 47 rooms in these areas have been inspected and verified as complete in support of the Key Performance Parameter for 234-5Z Ready for Demolition (KPP-1).

External isolations, process equipment removal, and decontamination continued on the 47 Remote Mechanical A (RMA) and Remote Mechanical C (RMC) Line gloveboxes, where significant radiation dose rates and high contamination levels complicate work. Removal of the conveyor system from the long HC-1 conveyor glovebox and removal of the guide rails was completed in Rooms 228A and 228B. A large shielding water wall was drained and then removed from between Rooms 228A and 228B to provide additional working space for D&D and removal of gloveboxes in these rooms.

This period, 33 feet of highly contaminated process solution transfer lines in the 234-5Z building were removed, bringing the total removed to date to 535 feet. Process vacuum system piping removal remains on hold in support of high-priority KPP 234-5Z Ready for Demolition work scope in the process and lab areas, and total removed remains at 1,210 feet. Insulator crews removed 345 feet of asbestos from piping and ductwork, bringing the total linear footage completed at PFP with Recovery Act funds to 14,999 feet.

As the pace of D&D work has accelerated at PFP, so have waste generation rates. CHPRC has now shipped approximately 3,542 cubic meters of waste from PFP with support from Recovery Act funds, including 2,849 cubic meters of low level and mixed low level waste, 665 cubic meters of TRU waste, and 28 cubic meters of nonradioactive waste.

Removal of the 250 contaminated HEPA filters from deactivated filter room 316 is complete and removal of filters from room 311 has been delayed due to the 291-Z fan failure

Base

236Z Plutonium Reclamation Facility – Troubleshooting on the canyon crane indicated that the “B” phase of the trolley AC motor had an open connection. Due to the failure of the motor, the trolley could not be used to return the crane to the maintenance platform. A spare AC motor was procured in the event that the motor is damaged and needs to be replaced.

A system to use a winch installed in the west gallery glovebox to retrieve the crane was developed. A pull line was installed between the galley glovebox and the crane. The winch was installed in the glovebox, and on August 18th, the field work team successfully relocated the canyon crane trolley to the maintenance platform.

EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
		➤ Actions to achieve target		
11-EMS-PFP-OB1-T1	Broaden spill mitigation efforts at PFP	Reduce opportunity for hydrocarbon spills		100% Complete
		➤ Evaluate additional controls	12/31/2010	Complete
		➤ Standardize controls for SOWs	3/31/2011	Complete
		➤ Evaluate alternate fuel options	6/30/2011	Complete
11-EMS-PFP-OB2-T1	Reduce number of private vehicles used for commuting to/from PFP	Ben Franklin Transit (BFT) bus service		100% Complete
		➤ Conduct survey	12/31/2010	Complete
		➤ Summarize survey results	3/1/2011	Complete
		➤ Obtain cost estimate	5/1/2011	Complete
11-EMS-PFP-OB3-T1	Materials Redeployment	Redeployment of unused and contaminate free items		100% Complete
		➤ Review release procedures	12/31/2010	Complete
		➤ Evaluate excess practices	3/31/2011	Complete
		➤ Evaluate procurement practices	6/30/2011	Complete
		➤ Document 3 successes	9/30/2011	Complete

TARGET ZERO PERFORMANCE

	Current Month	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	2	N/A
Total Recordable Injuries	0	6	N/A
First Aid Cases	8	94	ARRA - 08/01 Employee received a laceration to right hand. (22170) ARRA - 08/02 Employee experienced a sprain to right wrist. (22181) ARRA - 08/08 Employee experienced skin rash to hands. (22193) ARRA - 08/10 Employee experienced strain to right hand. (22213) ARRA - 08/11 Employee experienced strain to left shoulder. (22215) ARRA - 08/18 Employee received a laceration to knee. (22232) ARRA - 08/23 Employee received a sting to temple. (22258) ARRA - 08/24 Employee received contusion to right thumb. (22275)
Near-Misses	0	0	N/A

KEY ACCOMPLISHMENTS

11.05 Disposition PFP Facility – Base

Plutonium Reclamation Facility (PRF)

- The Standard Waste Boxes (SWBs) containing the segments from pencil tank assembly 24 (Tank 24) and the last segments of pencil tank assembly 17 (Tank 17) were shipped to the Central Waste Complex (CWC).
- Troubleshooting on the canyon crane indicated that the “B” phase of the trolley AC motor had an open connection. A spare AC motor was procured in the event that the motor is damaged and needs to be replaced.
- A system to use a winch installed in the west gallery glovebox to retrieve the crane was developed. On August 18th, the field work team successfully relocated the canyon crane trolley to the maintenance platform.

11.05 Disposition PFP (234-5Z) Facility – ARRA

- In Remote Mechanical A Line Room 235B, the cleanout of the large four level glovebox HA-23S continued and the first application of Aspigel chemical decontamination agent was completed for all four levels of HA-23S.
- RMA Line Room 235A-1, in addition to completing the removal of internal process equipment from HA-14DC and HA-14CC, the external isolation of gloveboxes HA-14S, HA-14P, HA-14DC, and HA-14CC was completed.
- In RMA Line Room 235A-3 the external isolation and removal of internal process equipment for gloveboxes HA-8A, HA-8B, HA-9C, HA-9D, and HA-9E was completed.
- In RMC Line Room 230A, removal of internal components for glovebox HC-21C and conveyor HC-2 neared completion.
- In RMC Line Room 230B, the removal of the internal conveyor chain and guide rails for HC-2 neared completion and the external isolation of glovebox HC-21A was started.
- In RMC Line Room 228A, the team completed size reduction and removal of guide rails from the HC-1 conveyor in Room 228A. Additionally, the team drained and removed a large water wall between Rooms 228A and 228B. During this period the team also started process equipment removal and external isolations of gloveboxes HC-10 and HC-11.
- In RMC Line Room 228B, the work team continued process equipment removal from Glovebox HC-15 A/B/C and also initiated mechanical isolations and process equipment removal of glovebox HC-16CC. During this period all of the hydraulic lines under the HC-1 conveyor in Room 228B were drained and removed.
- In RMC Line Room 228C, mechanical isolations and process equipment removal from Gloveboxes HC-17 SBB, DC, and P continued. During this period, the team drained several pickling waste and 26” vacuum lines in preparation for size reduction. Also, electrical isolations for gloveboxes HC-18M and HC-18BS, the balance of Room 228C, and the balance of Room 228B were continued.
- In RMC Line Room 227, mechanical isolation of the 227-S glovebox began and one Pu-nitrate transfer line was air-gapped.

Analytical Laboratory

- Bulk Area Cleanup activities for the lab continue. This involves removal of miscellaneous equipment and piping, which will prepare the lab area for demolition. Cleanup is scheduled

for completion by the end of September, 2011.

PPSL

- Bulk Area Cleanup activities for the PPSL lab continue. This involves removal of miscellaneous equipment and piping, which will prepare the lab area for demolition. Cleanup is scheduled for completion by the end of September, 2011.

Standards Lab

- Bulk Area Cleanup activities for the Standards Lab commenced. This involves removal of miscellaneous equipment and piping, which will prepare the lab area for demolition. Cleanup is scheduled for completion by the end of September, 2011.

Disposition PFP (234-5Z) Facility

- Process vacuum piping removal is 30 percent complete with 1,210 total feet removed.
- A total of 535 feet of chemical piping transfer line has been removed.
- 345 feet of asbestos-containing materials on piping was removed during the month of August bringing the total to 14, 999 feet of asbestos removed to date.

2736Z/ZB Vault Complex

- The entire 2736-Z Complex was declared Cold and Dark; including buildings 2721-Z, 2731-ZA, 2736-Z, 2736-ZA, 2736-ZB and 2736-ZC.
- 2721-Z, 2731-ZA and 2736-ZC were declared Ready for Demolition.

PFP Facility Modifications

- Fabrication of two Low Profile SWB Transport Carts was completed.

MAJOR ISSUES

Issue – On Sunday, July 24, 2011, the trolley on the PRF canyon crane failed during movement to retrieve the counter balance to install the Tank 23 strongback. A loud noise was heard from inside the canyon when the crane motion switch was moved to either the east or west directions.

Corrective Actions – As a result of the failure on the EF-1 Fan in the 291-Z facility on August 29, 2011, resulting in loss of normal ventilation, activities in the radiological areas of the Plutonium Finishing Plant (PFP) remain restricted. As a result, there were no canyon entries to troubleshoot the failure of the canyon crane trolley. It is unknown as to when canyon entries will resume.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk

● Working - No Concerns Increased Confidence
● Working - Concern No Change
● Working - Critical Decreased Confidence

Risk Title	Risk Strategy/Handling	Assessment		Comments
		Month	Trend	
RL-0011/WBS 011				
PFP-003, Structural Decontamination Required Prior to Demolition; PFP-015, Conditions or Contamination Causes Greater Cleanup Than Planned	Facility sampling and characterization	●		No new discoveries were identified during July or August; reporting on this risk will be suspended pending additional discoveries.
PFP-004, Risk of PRF Canyon D&D cost/schedule growth; PFP-009: Problems with Aging Building Systems/Components Impacts D&D	Complete detailed planning/engineering for D&D of PRF canyon, particularly pencil tank removal and canyon decontamination. Perform critical system reliability assessments; procure critical spares; maintain existing redundancies; repair or replace equipment as failures occur and complete planned facility modifications.	●		Exhaust fan #1 in the 291-Z building experienced a catastrophic failure on August 29. When the fan motor failed, damage was sustained to the motor, fan, shroud, and associated ductwork, and the fan belt caught fire. The fire was extinguished with little additional damage. Ventilation is being maintained by the steam turbine powered backup fans, however under the Limiting Condition of Operations (LCO) no intrusive work can be performed in 234-5Z, 242Z, 236Z or 291Z buildings until normal ventilation is restored. The PRF canyon crane, a critical resource in dispositioning pencil tanks and other equipment in the canyon, failed during July, apparently as a result of an electrical malfunction. The condition of the equipment has been assessed remotely to narrow down the location of the failure, and preparations have been completed for manned entries into the canyon to further troubleshoot and repair the system. This work has been suspended pending restoration of normal facility ventilation.
PFP-036: Loss of Contamination Control	Rigorous routine radiological surveillance program and contamination control measures.	●		Only a few, relatively minor contamination events have been experienced since more conservative radiological controls were implemented in PFP's D&D work packages and RMA/RMC Line area access requirements.
PRC-025: Workforce Disruptions; PFP-035: Jurisdictional Issues Impact Planned Labor; PFP-042, Increased Attrition Impacts Availability of Qualified Resources	Risk has historically been accepted without mitigation.	●		As workforce restructuring approaches, PFP continues to experience higher than normal levels of attrition and an increasing number of grievances and jurisdictional assignments of work adversely affecting schedule and cost performance. Absenteeism has also increased, and there is a noticeable decrease in acceptance of overtime. Critical positions are being backfilled where necessary, and CHPRC management is working with HAMTC leadership to develop jurisdictional implementation plans.

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 (%)
ARRA	12.1	9.0	9.9	(3.1)	-25.8	(0.9)	-10.3
Base	2.5	2.1	2.9	(0.4)	-15.9	(0.8)	-37.2
Total	14.6	11.1	12.8	(3.5)	-24.1	(1.7)	-15.4

Numbers are rounded to the nearest \$0.1M

ARRA

CM Schedule Variance: (-\$3.1M/-25.8%)

Current month unfavorable schedule variance is primarily a result of delays in completing D&D of 234-5Z and deferred D&D work resulting from resources reassigned to focus on higher priority KPP glovebox removal work scope. The 234-5Z process and lab area D&D delays are a result of inability to staff the planned three shifts of overtime, more stringent radiological controls, new team ramp-up, workforce restricting impacts and increased durations due to complexity of work associated with laboratory bulk area cleanout.

CM Cost Variance: (-\$0.9M/-10.3%)

Current month unfavorable cost variance is primarily a result of higher cost to execute the D&D 234-5Z work scope as a result of delays, difficulty, and encountered inefficiencies.

Base

CM Schedule Variance: (-\$0.4M/-15.9%)

Current month schedule variance is within reporting threshold.

CM Cost Variance: (-\$0.8M/-37.2%)

Current month unfavorable cost variance is primarily due to higher G&A cost. An administrative error resulted in an over distribution of G&A, which contributes \$0.5M to the unfavorable variance. The balance is due to a debit pass-back resulting from G&A pool liquidation.

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)
ARRA	258.2	245.4	250.7	(12.9)	-5.0	(5.3)	-2.2	287.3	271.3	16.0
Base	152.8	151.3	153.6	(1.5)	-1.0	(2.3)	-1.5	344.8	367.0	(22.1)
Total	411.1	396.6	404.3	(14.4)	-3.5	(7.6)	-1.9	632.2	638.3	(6.1)

Numbers are rounded to the nearest \$0.1M

ARRA

CTD Schedule Performance: (-\$12.9M/-5.0%)

Negative schedule variance is within reporting thresholds.

CTD Cost Performance: (-\$5.3M/-2.2%)

The cost variance is within reporting thresholds.

Base

CTD Schedule Variance (-\$1.5M/-1.0%)

The schedule variance is within reporting thresholds.

CTD Cost Variance (-\$2.3M/-1.5%)

The cost variance is within reporting thresholds.

Variance at Completion (-\$6.1M/-1.0%)

An unfavorable Base variance at completion results from the cost impact of extending the completion of D&D of 236-Z and 242-Z due to team reassignments to support higher priority RMA/RMC KPP glovebox removal work scope and the continued surveillance/monitoring and maintenance of vital systems required to support D&D, which were planned to be deactivated.

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 July to August, for both ARRA and Base, are within reporting thresholds.

FUNDS vs. SPEND FORECAST (\$M)

WBS 011/RL-0011 Nuclear Matl Stab & Disp PFP	FY2011		
	Projected Funding	Spending Forecast	Spend Variance
ARRA	163.1	129.4	26.3
Base	41.7	36.6	4.9

Numbers are rounded to the nearest \$0.1M

Funds/Variance Analysis

Funding includes FY2010 carryover and FY2011 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.