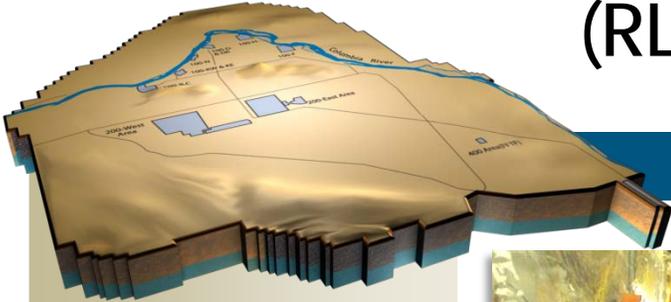


Section A

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



Monthly Performance Report

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Containment tent for pencil tank counter balance installation



Entry into the Room 232A Scrubber Cell

April 2011
CHPRC-2011-04, 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. The project continued with no lost work days or other recordable injuries in April after attaining more than 1.4 million work hours without a lost workday injury. The project also completed 90 days without a reportable event involving hazardous energy control, radiological control or conduct of operations. Seven minor first aid injuries were experienced during the month.

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, lab, and vault areas. Glovebox Deactivation, Decommission, Decontamination, and Demolition is complete in the backside vault rooms, Standards Laboratory, Analytical Laboratory, and the Radioactive Acid Digestion Test Unit (RADTU). A total of 113 gloveboxes have been removed to date with Recovery Act Funds. Of these, 101 have been shipped out of PFP for treatment or disposal and 12 have been set aside and staged for size reduction and disposal as transuranic (TRU) waste. Two more sections of the 70-foot long HA-28 conveyor glovebox were shipped to an offsite treatment facility for size reduction. Size reduction of one glovebox, HA-22B, is in progress. The 2736Z/ZB complex vault team has size reduced for disposal all the normal glovebox exhaust ductwork planned to be removed. Unexpected high levels of contamination were found inside one short section of ductwork expected to remain in place for demolition. During duct contamination verification couponing in the 2736ZB facility, contaminated piping was discovered and removed to allow for open air demolition. The CHPRC Deactivation and Demolition (D&D) Project mobilized heavy equipment to be used during upcoming demolition of the vault complex and two adjacent ancillary facilities.

In the Plutonium Process Support Laboratory (PPSL), four gloveboxes remain. Gloveboxes 188-1, 179-6 and 179-9 are targeted to complete in early May. Glovebox 179-1 is scheduled to be removed by the end of June.

In the Remote Mechanical A (RMA) and Remote Mechanical C (RMC) Lines, much of the glovebox work was suspended due to a duct-level contamination event. In the RMA Line, gloveboxes HA-19B1 and B2 were completed and are ready for transfer to waste operations. Three gloveboxes were dispositioned in place in the former RADTU area and will be disposed at the Environmental Restoration Disposal Facility with building debris during demolition. All of the remaining connections between glovebox HA-46 and the 232A hydrogen fluoride scrubber cell were isolated, and the glovebox was removed from building ventilation.

The 242Z Americium Recovery Facility D&D team began removing and packaging the TRU waste generated from WT-4 and WT-5 gloveboxes during in-situ size reduction activities.

The process vacuum piping team continued to support the 2736Z/ZB complex vault team; therefore, the total process vacuum piping removed remained at 1,210 feet. The process transfer line removal crew removed only 15 feet this period, for a total of 491 feet. The crew spent the majority of the month completing work to recover from a duct-level contamination event. At fiscal month end, the floor areas had been surveyed clean, air samples showed no detectable airborne contamination, and only a small area on a vertical duct remained to be decontaminated. Insulator crews removed 112 feet of asbestos from piping and ductwork, bringing the total linear footage completed at PFP with Recovery Act funds to 13,876 feet.

As the pace of D&D work has accelerated at PFP, so have waste generation rates. CHPRC has now shipped approximately 3,034 cubic meters of waste from PFP with support from Recovery Act funds, including 2,484 cubic meters of low level and mixed low level waste, 527 cubic meters of TRU waste,

and 23 cubic meters of nonradioactive waste.

The two trailer-mounted transformers, to support temporary power distribution systems, were installed. All Halon fire suppression systems have been removed from PFP facilities and shipped as excess property to a Department of Defense repository in Richmond, Virginia. Work has started on a Waste Route Platform Extension for door 107, this will allow for ease of removal of waste from the 234-5Z Duct Level.

Base

236Z Plutonium Reclamation Facility – Two Standard Waste Boxes (SWBs) containing the segments of pencil tank assembly 17 (Tank 17) were shipped to the Central Waste Complex (CWC). Preparations for the transfer of the pencil tank counter balance to the canyon were completed.

A new field work team has been assigned to work on the Miscellaneous Treatment (MT) gloveboxes. Walkdowns were conducted with the team, engineering, and the planner to discuss the approach to the mechanical isolation and the size reduction of the gloveboxes.

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		70% Complete
		➤ Evaluate additional controls	12/31/2010	Complete
		➤ Standardize controls for SOWs	3/31/2011	Complete
		➤ Evaluate alternate fuel options	6/30/2011	
11-EMS-PFP-OB2-T1	Reduce number of private vehicles used for commuting to/from PFP	Ben Franklin Transit (BFT) bus service		70% Complete
		➤ Conduct survey	12/31/2010	Complete
		➤ Summarize survey results	3/1/2011	Complete
		➤ Obtain cost estimate	5/1/2011	Complete
		➤ Report to management	7/1/2011	
11-EMS-PFP-OB3-T1	Materials Redeployment	Redeployment of unused and contaminate free items		50% Complete
		➤ Review release procedures	12/31/2010	Complete
		➤ Evaluate excess practices	3/31/2011	Complete
		➤ Evaluate procurement practices	6/30/2011	
		➤ Document 3 successes	9/30/2011	

TARGET ZERO PERFORMANCE

	Current Month	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	3	N/A
Total Recordable Injuries	0	7	N/A
First Aid Cases	8	97	ARRA - 4/4 Employee received a strain to their shoulder. (21877) ARRA - 4/10 Employee experienced pain in the knee while walking up the stairs. (21892) BASE - 4/12 Employee received a superficial laceration to their thumb. (21897) ARRA - 4/13 Employee received contusion to right hand. (21901) ARRA - 4/13 Employee received abrasion to arm. (21900) ARRA - 4/14 Employee received contusion to right knee. (21903) ARRA - 4/18 Employee experienced pain in the lower back. (21910) ARRA - 4/19 Employee experienced pain in the lower back when going down the stairs backwards. (21916)
Near-Misses	0	0	N/A

KEY ACCOMPLISHMENTS

11.02 Maintain Safe and Compliant PFP – Base

- Approval of a Justification for Continued Operation that officially recognizes the 242Z Annex as one of the facility confinement boundary airlocks was received from RL. An implementation plan has been approved and is expected to be completed in late May.

11.05 Disposition PFP Facility – Base

Plutonium Reclamation Facility (PRF)

- Two SWBs containing the segments of pencil tank assembly 17 (Tank 17) were shipped to the CWC.
- Preparations for the transfer of the pencil tank counter balance to the canyon were completed.
- A dry run of the transfer of the counter balance was conducted and the first entry to open door 964 to the canyon to fix the contamination required to transfer the counter balance was completed.
- A new field work team has been assigned to work on the MT gloveboxes.

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

- In Remote Mechanical A Line Room 235B, room modifications were completed which allowed gloveboxes HA-19B1 and HA-21I to be moved from the room. In addition, preparations to modify the wall between Rooms 235B and 235A-1 were started. This modification is necessary to have adequate space to work on the gloveboxes in Room 235A-1 and will also provide an enlarged opening to permit glovebox removals.
- In RMA Line Room 232, the cleanout of the HA-46 process cell continued.

- In RMA Line Room 235A-3 the isolation and removal of electrical components was started and the work planning with the new team continued.
- In RMC Line Room 230C, the last section of conveyor glovebox HC-3 was removed.
- In RMC Line Room 228A, a team from PRF was reassigned to this room and began work package planning activities.
- In RMC Line Room 228B, the work team began glovebox activations and continued work package planning activities.
- In RMC Line Room 228C, electrical investigations for the balance of the room were started and work planning with the team continued.
- In RMC Line Room 227, a newly established voluntary swing shift D&D team was assigned to this room and began work package planning activities.
- In the RADTU area, Room 235D, gloveboxes 100B, 200, and 300 were painted and separated from building ventilation. The three gloveboxes will be dispositioned in place and will be extracted from Building 234-5Z during facility demolition.

Analytical Laboratory

- All scheduled glovebox removal work in A-Labs is now complete. All but the 145-1 glovebox have been physically removed from the lab. The 145-1 glovebox will be removed from the facility at a later date after 234-5Z facility achieves operationally clean status.

PPSL

- Completed process equipment removal from the 179-9 glovebox and separated the 179-6 and 9 gloveboxes from their E4 connections
- Decontaminated, applied internal fixative, and separated the 188-1 glovebox from its E4 connection.

Disposition PFP (234-5Z) Facility

- Process vacuum piping removal is 30 percent complete with 1,210 total feet removed.
- A total of 491 feet of chemical piping transfer line has been removed.
- 112 feet of asbestos-containing materials on piping was removed during the month of April bringing the total to 13,876 feet of asbestos removed to date.

242Z Americium Recovery Facility

- Size reduction of gloveboxes WT-4 and WT-5 is 95 percent complete and waste packaging and load out is 90 percent complete.

2736Z/ZB Vault Complex

- Completed installation of an alternate generator to allow deactivation of the 2721Z generator building in preparation for cold and dark of the 2736-Z/ZB complex.
- Electrically and mechanically isolated the Underground Diesel Storage tank supporting 2721Z in preparation for demolition.

PFP Facility Modifications

- Received two Portable Electric Substations for Temporary Power. Installation of substations is ongoing.

MAJOR ISSUES

Issue – Radiological Controls Performance (people, process, procedures) is less than adequate.

Corrective Actions – Multiple actions in-progress to bolster while strengthening the overall program:

- Vacancies filled, additional staff added, significant support from CHPRC Central Radiological Controls
- Expectations set, controls established, programmatic compliance ensured.

Issue – Jurisdictional Decisions

Corrective Actions – Working with HAMTC to convey impacts and discuss implementation.

Issue – Workforce distractions due to Work Force Restructuring, Salary Freeze, and lack of an employee incentive program.

Corrective Actions – Training management and HAMTC Union Stewards on “Coping with Change.”
Developing a Company sponsored incentive program.

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				
PPF-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.	●	↔	Two D&D teams have been diverted from glovebox cleanout and removal in PRF, which has been running on or ahead of schedule, to similar work in the 234-5Z process areas. Critical path work to clean out the PRF canyon is continuing, with size reduction of the pencil tanks now underway. One D&D team may be returned to PRF following completion of their 234-5Z scope, however it is estimated that 7 team/months of glovebox scope will be deferred into FY 2012.
PPF-004A: Risk of 291-Z D&D cost/schedule growth	Complete detailed planning/engineering for D&D of 291-Z, particularly characterization to help definitize the scope of work for relatively inaccessible areas and evaluation of the need for an alternate exhaust system.	●	↔	The approach for detailed characterization of relatively inaccessible areas of 291-Z has been defined and development of work documents has been initiated. Performance of the work will be scheduled late in FY 2011 or early in FY 2012 to avoid impacts on higher priority glovebox removal work. Reporting on this risk will be suspended until additional information is available.
PPF-036: Loss of Contamination Control	Rigorous routine radiological surveillance program and contamination control measures.	●	↓	Two significant contamination events were recently experienced, including one in the duct level that impacted RMA/RMC Line glovebox removal work for three weeks and one in RMC Line resulting in several days of more localized impact. Implementation of a wide range of radiological control improvement initiatives is underway, including upgrading work controls such that they anticipate potential worst-case contingencies. Strong support continues to be provided by the central CHPRC Radiological Controls organization.
PRC-025: Workforce Disruptions	Risk has historically been accepted without mitigation.	●	↓	An increasing number of grievances and jurisdictional assignments of work are being received with the potential to drive unplanned skill mix changes and adversely affect PFP schedule and cost performance. The most significant of these has been recent direction from HAMTC awarding size reduction of gloveboxes to the boilermakers, versus the NCOs that have historically performed this work. PFP and Labor Relations management are working closely with HAMTC leadership to develop an implementation plan, while the decision is being appealed within HAMTC.

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	11.3	8.6	11.0	(2.7)	-23.7	(2.4)	-28.2
Base	2.4	2.1	2.8	(0.3)	-12.7	(0.6)	-28.8
Total	13.7	10.7	13.8	(3.0)	-21.7	(3.0)	-28.4

Numbers are rounded to the nearest \$0.1M

ARRA

CM Schedule Variance: (-\$2.7M/-23.7%)

Current month unfavorable schedule variance is a result of delays in completing D&D of 234-5Z and 242Z caused by contamination events and elevated levels of airborne radioactivity.

CM Cost Variance: (-\$2.4M/-28.2%)

Current month unfavorable cost variance is primarily a result of D&D work crews' inability to complete planned work (due to stop work caused by contamination events or high-levels of airborne radioactivity), and working on activities to recover from the stop work, for which no progress could be claimed.

Base

CM Schedule Variance: (-\$0.3M/-12.7%)

Current month schedule variance is within reporting threshold.

CM Cost Variance: (-\$0.6M/-28.8%)

Current month unfavorable cost variance is primarily due to continued surveillance/monitoring and maintenance of vital systems required to support D&D, which were originally planned to be deactivated. Additional resources and overtime used to complete pencil tank size reduction activities in PRF also contribute to the variance.

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	212.3	208.8	208.0	(3.5)	-1.7	0.7	0.3	294.0	284.2	9.8
Base	142.6	142.2	142.1	(0.2)	-0.2	0.2	0.1	344.8	367.4	(22.6)
Total	354.9	351.1	350.2	(3.8)	-1.1	0.9	0.3	638.8	651.6	(12.8)

Numbers are rounded to the nearest \$0.1M

ARRA

CTD Schedule Performance: (-\$3.5M/-1.7%)

Negative schedule variance is within reporting threshold.

CTD Cost Performance: (+\$0.7M/+0.3%)

Favorable cost variance is within reporting threshold.

Base

CTD Schedule Variance (-\$0.2M/-0.2%)

The schedule variance is within established reporting thresholds.

CTD Cost Variance (+\$0.2M/+0.1%)

This positive cost variance is within established reporting thresholds

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 ARRA EAC decreased \$2.0M from the prior month primarily due to reduction of discretionary overtime to address safety, deferred size reduction work scope, and an error in prior month forecast.

The Base EAC increased \$2.5M from the prior month primarily due to deferral of FY2011 D&D size reduction scope (previously under ARRA), an error in prior month forecast, and an \$0.8M increase associated with the Displaced Workers Medical Benefits that will occur from FY2012 through FY2014 as a result of an RL approved reduction in force to be implemented in September 2011.

FUNDS vs. SPEND FORECAST

(\$M)

WBS 011/RL-0011 Nuclear Matl Stab & Disp PFP	FY2011		
	Projected Funding	Spending Forecast	Spend Variance
ARRA	163.1	158.3	4.8
Base	39.3	36.6	2.7

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

BCR-PRC-11-021R0, Transfer of Workforce Restructuring to ARRA Only

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.