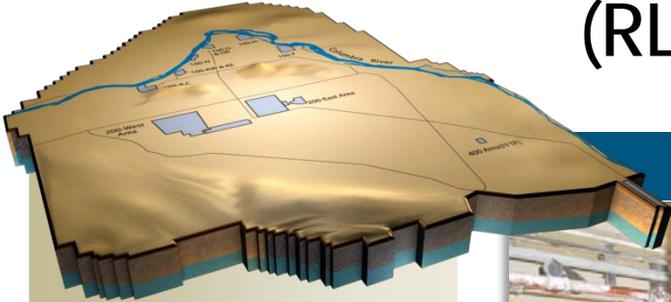


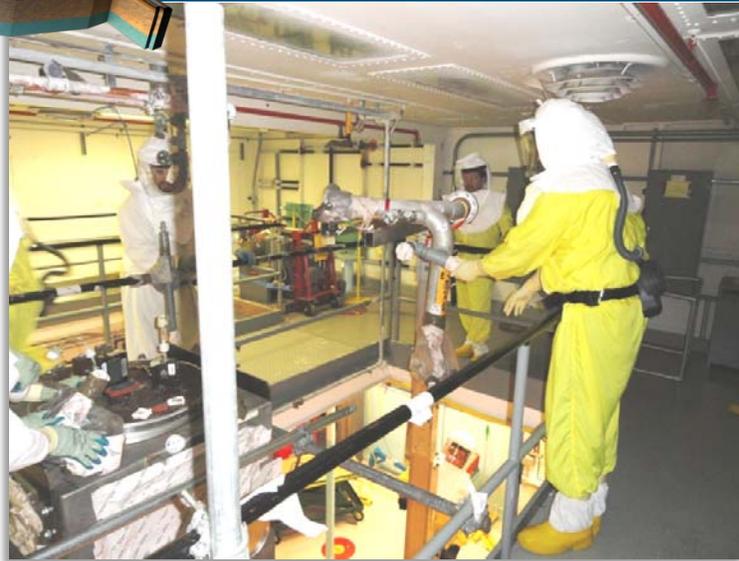
Section A

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



Monthly Performance Report

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Glovebox in Room 235B being removed from ventilation



Gloveboxes WT-5 and WT-4 during size reduction

March 2011
CHPRC-2011-03, 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 March after attaining more than one million work hours without a lost workday injury during February. 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. The 2736Z/ZB complex vault team completed removal of the filters from room 636, glovebox High-efficiency particulate air (HEPA) filters from room 642 and 50 percent of the remaining known contaminated ductwork from Room 642 to support readiness for demolition of the facilities later this year. A total of 105 gloveboxes have been removed to date with Recovery Act Funds. Of these, 101 have been shipped out of PFP for treatment or disposal and four have been staged for size reduction and disposal as transuranic (TRU) waste. Size reduction of glovebox 139-6 was completed in Room 172 in just three working days; this is the fourth glovebox to be processed through the new centralized size reduction station. Three of five sections of the 70-foot long HA-28 conveyor glovebox were shipped to an offsite treatment facility for size reduction. The remaining two sections are staged for size reduction at PFP.

In the Analytical Laboratory, glovebox 522 was removed from room 152 and staged for size reduction. This leaves only one glovebox to be dispositioned in the Analytical Laboratory from room 145. A third application of RadPro® will be used in an effort to achieve low level waste disposal criteria before painting the box and removing it from building ventilation. In the Plutonium Process Support Laboratory (PPSL), six gloveboxes have been isolated, painted and removed from building ventilation. Three of these (179-10, -11 and -12) were separated and relocated to another area within the room. Preparations to separate the other three (179-2, -3 and -4) were completed and these boxes are ready for removal. External isolations were completed on glovebox 188-1. The two remaining boxes (179-6 and 179-9) have one drain line disconnect remaining, after which they will be painted and removed from building ventilation.

In the RMC Line, the HC-3 and HC-4 conveyor gloveboxes have been isolated from building ventilation, and two of the three sections of HC-3 have been separated and prepared for removal from room 230C. In the RMA Line, the HA-19B1 and B2 gloveboxes were isolated from building ventilation, and the upper section of B2 was separated and removed. Surface Contaminated Object (SCO) surveys determined the boxes will need to be disposed as TRU waste. Work to disposition three gloveboxes in place in the former Radioactive Acid Digestion Test Unit (RADTU) area is also nearing completion. The crew separated glovebox 100 from glovebox 200 and cleanout and removal of waste from inside glovebox 100B/C is continuing.

The 242Z Americium Recovery Facility D&D team initiated a new, more efficient work process that will allow two fresh-air entries into the facility per day versus one. Work to size reduce the first two gloveboxes continues, and the team is 90 percent complete on WT-5 and 60 percent complete on WT-4.

Progress in completing process vacuum piping removal continued, with 199 feet removed this period, bringing the total removed to 1,210 feet. The process transfer line removal crew was able to remove 109 feet this period, for a total removed of 476 feet. Insulator crews also removed asbestos from piping and ductwork, bringing the total linear footage completed at PFP with Recovery Act funds to 13,764 feet. As the pace of D&D work has accelerated at PFP, so have waste generation rates. CHPRC has now shipped approximately 2,966 cubic meters of waste from PFP with support from Recovery Act funds, including

2,443 cubic meters of low level and mixed low level waste, 500 cubic meters of TRU waste, and 23 cubic meters of nonradioactive waste.

Work to install two trailer-mounted transformers to support temporary power distribution systems continued on the north and south sides of 234-5Z; the last of the trenches needing near-term stabilization to support removal and handling of heavier gloveboxes were grouted; and the new Mobile Decontamination Facility was placed in operation, providing emergency decontamination capability on both the east and west sides of the building.

Base

236Z Plutonium Reclamation Facility – All of the sections of the maintenance, charging, canning and loading gloveboxes have been shipped to the Central Waste Complex (CWC).

Size reduction of pencil tank assembly 17 (Tank 17) was completed. The first Standard Waste Box (SWB) containing segments of Tank 17 is being processed for shipment. Design of a band saw frame to allow the use of a band saw to size reduce the pencil tank assemblies and improve the efficiency of the process was completed. Fabrication and assembly of the mockup has been initiated.

Two additional PRF field work teams were reassigned to work higher priority work in the RMC/RMA lines. This is impacting planning and field work for the removal of the Miscellaneous Treatment (MT) and column gloveboxes.

EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
		➤ Actions to achieve target		
11-EMS-PFP-OB1-TI	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		55% Complete
		➤ Conduct survey	12/31/2010	Complete
		➤ Summarize survey results	3/1/2011	Complete
		➤ Obtain cost estimate	5/1/2011	In progress
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	8	N/A
First Aid Cases	7	98	ARRA - 3/3 - Employee received abrasion to elbow from fall. (21802) ARRA - 3/11 - Employee received abrasion to lower leg from blown tumbleweed. (21830) ARRA - 3/14 - Employee experienced knee pain during a quick turning movement. (21834) ARRA - 3/17 - Employee experienced neck strain when they hit their hard hat on ducting. (21836) ARRA - 3/24 - Employee experienced strain to their right hand. 21847) ARRA - 3/24 - Employee received an abrasion to their left thumb. (21848) ARRA - 3/25 - Employee received a laceration to their knee. (21854)
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 early May.

11.05 Disposition PFP Facility – Base

Plutonium Reclamation Facility (PRF)

- The Standard Waste Boxes (SWBs) containing the remaining sections of the maintenance glovebox and all sections of the charging, canning, and loading gloveboxes were loaded and shipped to the Central Waste Complex (CWC).
- Size reduction of Tank 17 was completed and the last remaining segments remain to be sealed out.
- Design of a band saw frame to allow the use of a band saw to size reduce the pencil tank assemblies and improve the efficiency of the process was completed. Fabrication and assembly of the mockup has been initiated.

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

- In Remote Mechanical A Line Room 235B, the removal of gloveboxes HA-19B1 and HA-19B2 was completed.
- In RMA Line Room 232, the cleanout of the HA-46 process cell continued.
- In RMA Line Room 235A-3 the isolation of mechanical lines to glovebox HA-7A continued and the planning with the new team was started.
- In RMC Line Room 230C, the West and middle sections of conveyor gloveboxes HC-3 were removed and the remaining section of HC-3 and HC-4 were readied for removal.
- In RMC Line Room 228B, a team from PRF was reassigned to this room and began glovebox activations and work package planning activities.
- 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, the separation of gloveboxes 100 and 200 was completed and gloveboxes 100 and 300 were painted and separated from building ventilation.

Analytical Laboratory

- Decontamination of the 145-1 glovebox was completed and fixative applied to the interior surface. Separation of both the 152-522 and 145-1 gloveboxes from their E4 connection was completed.

PPSL

- Completed process equipment removal from the 179-9 gloveboxes
- Completed decontamination of and fixative application in the 179-6 and -9 gloveboxes
- Separated the 179-2, 3, 4, 10, 11, 12 gloveboxes from their E4 connections

Disposition PFP (234-5Z) Facility

- Process vacuum piping removal is 30 percent complete with 1,210 total feet removed.
- A total of 476 feet of chemical piping transfer line has been removed.
- 140 feet of asbestos-containing materials on piping was removed during the month of March bringing the total to 13,764 feet of asbestos removed to date.

242Z Americium Recovery Facility

- Size reduction of gloveboxes WT-4 and WT-5 is 85 percent complete.
- The initial investigation of transfer lines located in WT-1 for work taking place in the duct level was completed.

2736Z/ZB Vault Complex

- Commenced 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. Completed radiological characterization of building ductwork to prove no additional material at risk (MAR) exists in preparation for transition to “operationally clean” status.
- Removed about 75 percent of the final contaminated filters and duct work in preparation for demolition of the facilities.

PPF 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 already established, programmatic compliance

Issue – “Pending” status for Beryllium Workers undergoing annual recertification precludes access to Beryllium Controlled Areas (BCA).

Action – Preliminary resolution complete, allowing those “Pending” to enter BCA if within their qualification year – permanent fix in progress.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk

 Working - No Concerns
 Working - Concern
 Working - Critical

 Increased Confidence
 No Change
 Decreased Confidence

Risk Title	Risk Strategy/Handling	Assessment		Comments
		Month	Trend	
RL-0011/WBS 011				
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.			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. Dispersion modeling for demolition of the canyon is continuing at PNNL. Two meetings have been held with AREVA to evaluate applicable experience from their nuclear facility D&D experience in France. An onsite visit to PRF is planned for April.
PFP-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.			Planning is continuing for detailed characterization of relatively inaccessible areas of 291-Z, which should resolve the uncertainties leading to this project risk.
PFP-036: Loss of Contamination Control	Rigorous routine radiological surveillance program and contamination control measures.			Additional contamination events have been experienced, including one resulting in a potential uptake. Significant management attention has been placed on upgrading the conservatism of work controls such that they anticipate potential worst-case contingencies. Significant technical support is being provided by the central CHPRC Radiological Controls organization.

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	13.2	12.5	13.8	(0.7)	-5.4	(1.3)	-10.2
Base	<u>3.3</u>	<u>3.2</u>	<u>3.4</u>	<u>0.1</u>	-2.9	<u>(0.2)</u>	-6.6
Total	16.5	15.7	17.2	(0.8)	-4.9	(1.5)	-9.5

Numbers are rounded to the nearest \$0.1M

ARRA

CM Schedule Variance: (-\$0.7M/-5.4%)

Current month unfavorable schedule variance is primarily due to delays in completing D&D of RMA/RMC process lines due to contamination events, more complex scope than planned, longer shift ramp-up time, and shift of work from Powered Air Personal Respirator (PAPR) to breathing air due to exposure to chemicals; delays in asbestos abatement removal due to lack of RCT support, and resources diverted from process vacuum line and filter removal to support ready for demolition activities for the 2736-ZB complex.

CM Cost Variance: (-1.3M/-10.2%)

Current month unfavorable cost variance is primarily a result of inefficiencies in D&D due to requirement to staff an involuntary P/Q shift to support RMA/RMC process line work, additional staff required to support breathing air versus PAPR work, increased overtime due to complexity of work; and, more time required to complete 2736ZB complex intrusive investigations due to new Radiological Controls requirements for work above eight feet.

Base

CM Schedule Variance: (-\$0.1M/-2.9%)

Current month schedule variance is within reporting threshold.

CM Cost Variance: (-\$0.2M/-6.6%)

Current month cost variance is within reporting threshold.

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	201.0	200.2	197.0	(0.9)	-0.4	3.2	1.6	285.1	286.2	(1.0)
Base	140.1	140.2	139.4	0.1	0.0	0.8	0.6	345.2	363.9	(18.7)
Total	341.2	340.4	336.4	(0.8)	-0.2	4.0	1.2	630.3	650.1	(19.8)

Numbers are rounded to the nearest \$0.1M

ARRA

CTD Schedule Performance: (-\$0.9M/-0.4%)

Negative schedule variance is within threshold. The project is currently experiencing impacts associated with:

- Leak Path Factor/periphery confinement barrier issues associated with 242Z entry point
- Disqualification of multiple electrical disciplines impacted completion of 2736Z/ZB cold and dark activities and deployment of the 2736Z/ZB team to support RMA/RMC Key Performance Parameter (KPP) glovebox removals
- The complexity of the remaining 234-5Z process and laboratory glovebox removal effort
- Impacts from responses to contamination events
- The addition of personnel and new teams occurring later than planned
- Unable to make entries due to issues/stop work associated with breathing air, contamination above eight feet, lack of RCT support, and continuous air monitor (CAM) alarm/recovery

Recovery –Nuclear Safety is working to implement the RL-approved Justification for Continued Operation to address the 242Z Leak Path Factor/periphery confinement barrier issues; completion extended to May. Gloveboxes have been shipped to Perma-Fix Northwest, offsetting delays experienced with glovebox removal and size reduction in the 234-5Z facility. Although delays were experienced this month, the efficiencies of reassigned D&D teams are expected to increase and will support achieving the September 30, 2011 KPP.

CTD Cost Performance: (+\$3.2M/+1.6%)

Favorable cost variance is within threshold and is primarily due to lower overhead costs. The balance is due to efficiencies recognized on cross-cutting support to the D&D work teams (primarily in solid waste management, project management, nondestructive assay, consumables and subcontracts), demolition of ancillary buildings, and the removal of asbestos and non-process equipment from 234-5Z. This positive cost variance will continue to erode due to additional resources and issues experienced in removing 234-5Z process and laboratory gloveboxes.

Base

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

The positive schedule variance is within established reporting thresholds.

CTD Cost Variance (+\$0.8M/+0.6%)

This positive cost variance is within established reporting thresholds. Contributors to the variance include early completion of Special Nuclear Material De-Inventory, lower procurement of D&D materials, subcontracts, and waste containers, D&D staff ramp-up, early demolition of ancillary facilities, and efficiencies in facility modifications to support D&D.

Impact –PRF and 242Z D&D field work teams were re-assigned to support RMA/RMC glovebox removal and will not return to support D&D of these buildings until FY2012. This change results in a one-year impact to PRF D&D completion and a nine-month impact to 242-Z D&D. However, the change still supports completion of TPA Milestone M-083-43, *Complete Transition Of The 242-Z Waste Treatment Facility And 236-Z Plutonium Reclamation Facility To Support PFP Decommissioning*, on 9/30/2013. The cost impact of extending these teams into FY2013 is reflected in the updated forecast and contributes \$16.5M to the projected overrun at completion. The balance is due to vital safety systems, which were originally planned to be deactivated, still supporting D&D and requiring surveillance/monitoring, and maintenance.

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

FUNDS vs. SPEND FORECAST

(\$M)

WBS 011/RL-0011 Nuclear Matl Stab & Disp PFP	FY2011		
	Projected Funding	Spending Forecast	Spend Variance
ARRA	163.1	160.9	2.2
Base	39.3	36.7	2.6

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.

Estimate at Completion (EAC)

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

Baseline Change Requests

BCR-PRC-11-016R0, Accelerate Demolition of 2736-Z-ZB Vaults

BCRA-PRC-11-025R0, Adjustments to Fee

BCRA-PRC-11-026R0, Adjustment to Schedule Logic for Milestones in PMB

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.