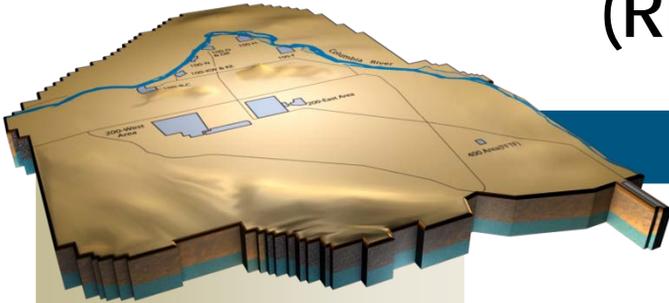


Section A

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



Monthly Performance Report

Legacy waste on 242-Z Control Room Floor



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Room 235B Preparing last process equipment seal out for Glovebox HA-19B1

PROJECT SUMMARY

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

American Recovery and Reinvestment Act (ARRA)

With support from Recovery Act funds, workers have now removed 38 of the 174 remaining gloveboxes and hoods from their originally installed locations throughout the 234-5Z Building, completed the removal of process equipment from 20 others, and decontaminated 13 to meet low level waste transportation and disposal criteria. Deactivation and Decommissioning (D&D) crews initiated removal of combustible waste from gloveboxes and hoods throughout 234-5Z Building in support of a new combustible control program.

234-5Z Laboratory Areas - Gloveports were activated and combustible materials removed from six hoods in Room 139 and from HC-46F in Room 170. In the former Standards Laboratory, remaining external equipment was removed from Glovebox 221D-5, readying the glovebox for isolation from building ventilation and removal; disassembly of analytical cabinets in Rooms 221C and 221D was completed to support the upcoming cleanout and removal of five gloveboxes in 221D. In addition, decontamination of three gloveboxes in Room 136 of the Analytical Laboratory is nearing completion; legacy waste in Room 144 was removed in preparation for disposition of waste chemical items stored in laboratory hoods; chemical decontamination was initiated on three hoods in Room 149; and, removal of external equipment attached to three hoods in Room 191 was initiated. PFP criticality safety and emergency response documents associated with work in the adjacent 236Z and 242Z Buildings have been modified to limit impacts on work in nearby portions of the 234-5Z Building. This will eliminate the need to suspend D&D work in portions of the Analytical Laboratory during future canyon and cell entries in the adjoining buildings.

Plutonium Processing Areas - In the 234-5Z RMA Line, D&D crews successfully completed process equipment removal from multi-story Gloveboxes HA-19B1 and B2. Also in the RMA Line, removal of external equipment from Glovebox HA-46 continued and activation of the glovebox began in support of internal process equipment removal. In the former Radioactive Digestion Test Unit (RADTU) installation of a large-area containment was completed to support cleanout of multiple gloveboxes, and preparations were initiated to replace the inlet filters prior to beginning work on Glovebox 400. In the RMC Line, work continued to remove external piping stubs from the outside of Glovebox HC-60 in an effort to reduce contamination on the box to a level that will support onsite disposal as low level waste. Process equipment removal was also initiated on Glovebox HC-230C-2.

Infrastructure Systems – The last of the safety showers and eyewash stations to be deactivated and removed this fiscal year were removed from Room 166 and the Standards Laboratory. A previously deactivated steam turbine controller was removed from the 291Z Building, as was about half of the steam piping that needs to be removed in 291Z to provide space for access to and removal of equipment from areas requiring D&D. Arrangements have been completed for reuse of most of the hundreds of jersey barriers and ecology blocks that once made up several extensive vehicle barriers for security around PFP. Construction of a new remotely operated rollup freight door, with an inflatable seal, at Door 135A neared completion. The new doorway will permit direct loading of gloveboxes and other waste containers into larger, end-loading transport containers without the need to transport the heavy containers out of the building, across the PFP yard via fork lift, and lift them into top-loading containers with a crane.

Insulators continued removal of asbestos insulation from piping in the 234-5Z Building, bringing the total removed under ARRA funding to more than 7,600 feet.

Preparations continued toward initiating the removal of more than 5,000 feet of process vacuum lines throughout the facility, beginning in late February. A contract was also placed for the procurement of large chillers which will be used beginning next summer to cool radiologically controlled areas of the

234-5Z, 236Z, and 242Z Buildings.

Solid Waste - The Solid Waste staff, with support from the Waste and Fuels Project, completed preparations for packaging and shipping three hoods previously removed from Room 131 of the Analytical Laboratory using the Contaminated Equipment – Special Package Authorization (CE-SPA) process. The gloveboxes were loaded into an end-loading IP-2 container for shipment to the Environmental Restoration Disposal Facility (ERDF) on February 9.

Decontamination Agent - Significant progress has been made in developing alternative processes to supplement the use of RadPro in decontaminating gloveboxes and other process equipment at PFP and the use of Surface-contaminated Object (SCO) surveys to characterize and authorize transport of successfully decontaminated equipment to ERDF as low level waste. Three gloveboxes were shipped to ERDF in mid-February using the CE-SPA process, and a contract has been awarded to test Aspigel ® (decontamination agent) for use at PFP.

2736Z/ZB Vault Facility - Work is well underway to clean out and ready the former plutonium vault storage complex for demolition, including three vault and support buildings. Mechanical and Electrical isolation was completed on Glovebox 636 in the 2736Z/ZB complex. In addition, SCO was completed on the East Hood of the 636 Glovebox.

242Z – Americium Recovery Facility - Preparations were made for an entry into the 242Z Americium Recovery Facility to further assess the condition of the control room and the fire protection systems. This will be the second entry into this highly contaminated facility since 2005. The building was heavily contaminated as a result of an explosion in a glovebox in the 1970's and few entries have been made since that time.

Base

D&D teams continued removing process equipment from the Plutonium Reclamation Facility (PRF) (236Z Building) gallery gloveboxes. Process equipment removal from the second floor west gallery glovebox is complete. Functional testing of the canyon crane was conducted which identified items that needed to be addressed prior to operation. In addition, the modifications to the drum dump containment have been completed and planning for the mock-up of the use of the containment has been initiated. Planning for the resumption of the manual method for size reduction of the pencil tanks has been initiated.

EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
10-EMS-PFP-OB1-T1	Reduce the environmental impacts of spills	Develop and implement effective measures that can be taken in advance of a spill to avoid or reduce the environmental consequences.	9/30/2010	On schedule
		Revise PFP spill response procedure consistent with revised company procedures.	2/28/2010	Completed 2/24/2010
		Develop and provide awareness, prevention, response and mitigation training (80% of project personnel)	9/30/2010	On schedule
		Establish and maintain a pre-designation central file for spills	9/30/2010	On schedule

TARGET ZERO PERFORMANCE

	CM Quantity	FYTD Quantity	Comment
Days Away, Restricted or Transferred	1	1	Base - 2/3 - Employee fell and fractured shoulder. (20689)
Total Recordable Injuries	1	1	Same as DART Case above
First Aid Cases	13	42	Base - 2/1 - Employee scraped left index finger. (20666) ARRA - 2/1 - Employee fell to knee. (20681) Base - 2/1 - Employee cut finger. (20677) Base - 2/2 - Employee received a scrape to arm. (20684) Base - 2/4 - Employee received a cut to thumb. (20688) Base - 2/8 - Employee fell. (20701) Base - 2/9 - Employee experienced pain in shoulder while carrying instrument. (20703) Base - 2/9 - Employee hit hand and experienced small lump. (20704) Base - 2/11 - Employee hit head and experienced headache and neck/back strain. (20713) Base - 2/17 - Employee experiences strain to knee. (20719) ARRA - 2/18 - Employee received scraped to shin. (20720) ARRA - 2/22 - Employee received scrape to finger. (20727) Base - 2/25 - Employee received scrape to hand. (20733)
Near-Misses	0	0	N/A

KEY ACCOMPLISHMENTS

11.02 Maintain Safe and Compliant PFP – Base

- A letter was submitted to RL notifying them of a delay in completing implementation of the HEPA filter performance JCO closure effort caused by misunderstanding of the application of the combustible control program. The letter also requests approval of clarification changes for some legacy combustibles to be allowed to remain in gloveboxes if authorized by the fire protection engineer. The approval will also allow the canopy covered area outside of Door 125 to continue to be used for used laundry staging.
- Results of a negative Un-reviewed Safety Question (USQ) determination as an Evaluation of Safety of the Situation related to RADPRO decontamination solution waste rags in drum storage was submitted to RL. The submittal allowed cancellation of the Standing Operating Order restricting drums of RADPRO waste rags in Room 236.
- Electrical modifications, set up, and use of the new respirator issuance station occurred in February. The new location reduces waiting times to for personnel receiving respirators required for Project work activities.

11.05 Disposition PFP Facility - Base**Plutonium Reclamation Facility (PRF)**

- Process equipment removal from the PRF second floor west gallery glovebox is complete
- The function testing of the canyon crane was conducted on February 8. All functions were operational. The results of the test were reviewed and it was determined that beneficial use of the crane for training and the cleanup of the crane floor would be allowed. A minimum of eight entries will be needed to address the items identified during the functional testing.
- In support of the manual downsizing of the pencil tanks, reactivation of the maintenance cell gloves was initiated
- A decision was made to allow the strong backs to be left in the facility for demolition. However, some gross decontamination and/or application of fixative may be required. This may require characterization samples (contamination levels) to be taken following pencil tank size reduction.
- Glovebox gloves were reactivated on the maintenance glovebox and the combustible waste sealed out to support the upcoming implementation of the new combustible controls program

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

- In Room 230C continued decontamination of Glovebox HC-60 and final steps were initiated to remove Glovebox HC-230C-2
- In Room 235B RMA Line D&D crews successfully completed process equipment removal from multi-story Gloveboxes HA-19B1 and B2
- D&D crews initiated removal of combustible waste from gloveboxes and hoods throughout 234-5Z Building in support of a new combustible control program
- In Room 232 RMA Line, work on external mechanical isolation and removal of external equipment from Glovebox HA-46 continued. In addition, activation of the gloveports began in support of internal process equipment removal.
- Installation and activation of a large containment in Room 235D was completed. This will allow work on the RADTU Gloveboxes to progress without impacting the normal travel route for solid waste from the 234-5Z Building.

242Z – Americium Recovery Facility

- Actions were completed to eliminate the termination of fissile material restrictions when making entries into 242Z and the PRF canyon
- The first entry into 242Z was completed as planned
- Dose estimates for use in the waste packaging and waste packaging guidelines were received
- Waste removal efforts were initiated in the 242Z air lock
- A Sample Analysis Form (SAF) was developed after liquid was discovered on the floor of 242Z control room. In addition, a Recovery Plan was developed to sample the liquid. An unsuccessful attempt to sample the liquid in the 242Z control room was made, because the liquid had evaporated.

2736Z/ZB – Vault Complex

- Mechanical isolation of the glovebox and hoods in Room 636 of 2736-ZB was completed.
- Mechanical Isolation of the Liquid Nitrogen Generator was completed.

MAJOR ISSUES

RL-0011 Nuclear Materials Stabilization and Disposition of PFP

Issue Statement – An additional decontamination process for PFP gloveboxes/hoods with contamination etched into the stainless steel by historical liquid chemical processes is not currently available. Plans to ready the PFP complex for demolition rely heavily on decontamination of the majority of gloveboxes and hoods to low-level waste, followed by direct disposal at ERDF. This avoids the more hazardous, time consuming and costly processes needed to size reduce the equipment, package it for disposal as TRU waste, and transfer it to CWC for final disposal at WIPP.

Corrective Action: A contract has been awarded for additional testing of the Aspigel[®] product to determine its suitability for use as a supplemental decontamination agent at PFP; results are expected in April. PFP will also be observing a demonstration of another product, Decon Gel, at 100K in March, and obtaining test results on the product from SRS. An alternate approach for characterizing and transporting gloveboxes for disposal at ERDF using the Contaminated Equipment – Special Package Authorization (CE-SPA) process was successfully piloted with a shipment of three gloveboxes to ERDF on February 9.

Issue Statement – Implementation of the Surface Contaminated Object (SCO) process at PFP has limited the utilization and effectiveness of this program.

Corrective Action – Regulations and policy associated with this process are being reviewed to determine a path forward that will allow full utilization of the SCO process.

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				
PFPP-001: Inability to Effectively Decon Equip/Materials to LLW	Develop decontamination approaches and perform testing early in the project. Incorporate surgical removal of isolated TRU on gloveboxes into the baseline. Establish size-reduction containment with robust tools.			Testing is underway on the Aspigel® product for use on PFP gloveboxes where RadPro is not fully effective. Test results are also being obtained from SRS on Decon Gel, and PFP will observe a demonstration at K Area in March. The design of size reduction stations is underway. The CE-SPA process was successfully used for a shipment of three gloveboxes on February 9.
PFPP-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.			A dual approach has been identified for removal and disposition of pencil tanks in the PRF canyon (manual and mechanical size reduction). Preparations to initiate manual size reduction are underway, beginning with a bent tank assembly currently located in the maintenance bay. Workarounds are being considered that could avoid the need for several other PRF modifications, including an exterior waste elevator to support equipment removal from the upper floors.
PFPP-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.			Characterization of less accessible portions of the 291-Z exhaust plenum was incorporated in the baseline update and will be completed by the end of FY 2010.
PFPP-009: Problems with Aging Building Systems/Components Impacts D&D	Numerous mitigation actions for various equipment failures and issues with the 234-5Z ventilation system were incorporated in previous versions of the baseline, including procurement of new, Canberra continuous air monitors (CAMs) to replace less reliable existing CAMs. Procurement of a supplemental cooling system for 234-5Z and 236-Z, and provisions for stabilization of the below graded piping encasement to 241-Z are incorporated in PMB-2.			A new issue was identified during February when an entry into 242-Z discovered water accumulation in the control room as a result of apparent roof leaks. An assessment of the roof is underway. A supplemental cooling system has been designed and procurements are in progress to support installation by early summer. A sampling and stabilization plan for the piping encasement to 241-Z is under development. Replacement of CAMs is continuing as CAM failures are experienced.

PROJECT BASELINE PERFORMANCE

Current Month

(\$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)
ARRA	7.5	7.4	7.1	(0.1)	-0.7	0.4	4.8	590.0
Base	<u>3.8</u>	<u>3.3</u>	<u>3.5</u>	<u>(0.5)</u>	-13.1	<u>(0.3)</u>	-8.1	<u>339.6</u>
Total	11.3	10.7	10.6	(0.5)	-4.8	0.1	0.9	629.5

Numbers are rounded to the nearest \$0.1M.

ARRA

CM Schedule Performance: (-\$0.1M/-0.7%)

The Current Month negative Schedule Variance is within reporting threshold.

CM Cost Performance: (\$0.4M/4.8%)

The current month positive cost variance is primarily due to the efficiencies recognized in glovebox hood removal, and decontamination efforts in the 234-5Z Analytical Labs. In addition, transfer of the 242Z and 2736Z/ZB work scope from Base to ARRA funding is also contributing to this positive variance. Direction to make this transfer was received at the end of February and costs for the work performed were collected in the Base funded accounts. Cost corrections are being processed and will be recognized in the March reporting period. This is partially offset by efforts to support removal of legacy combustible waste diverting resources that would normally be performing glovebox decontamination and removal efforts. Also contributing to the offset is accruals for the procurement of the chiller not being processed during the month of February. The combustible waste removal effort has been completed enabling the resources that were diverted to support the effort to focus on their normal D&D work activities. Special attention will be made to ensure that accruals are processed for the procurement of the Chillers in the month of March.

Base

CM Schedule Performance: (-\$0.5M/-13.1%)

The Current Month negative Schedule variance is associated with work scope to correct the wiring on the crane, and the required crane adjustments that were identified during the function testing and training of personnel on the operation of the crane. Eight more crane entries are anticipated to correct the wiring on the crane. Due to the adjustments, beneficial use of the crane is limited to training and canyon floor cleanup. The crane adjustment work scope has delayed the initiation of cleaning of the canyon floor and non-destructive assay (NDA) of the pencil tanks. Also contributing to this variance is assignment of two PRF D&D teams used to supplement the canyon crane crews for canyon entries and waste seal outs in support of the new combustible waste program, impacting work on the gallery glovebox equipment removal and removal of the pH and Pulser gloveboxes. In addition, until an evaluation for manual size reduction of the pencil tanks is completed, the procurement of the BROKK (remote size reduction handling system) has been put on hold. The schedule variance associated with the procurement of the BROKK will continue pending the completion of the evaluation of the manual size reduction approach (~June 2010).

CM Cost Performance: (-\$0.3M/-8.1%)

The Current Month negative Cost variance is a result of cost corrections in the base funded Modifications project management account to support work on the PRF Waste elevator, South Canyon Airlock Modifications and installation of the doors in the 2736Z/ZB facility. Also contributing to this variance is

the transfer of the 242Z and 2736Z/ZB work scope from Base to ARRA funding. Direction to make this transfer was received at the end of February and costs for the work performed were collected in the Base funded accounts. Cost corrections are being processed and will be recognized in the March reporting period. This is partially offset by efficiencies recognized in the Maintain Safe and Compliant PFP control account by reassigning resources to support D&D work scope.

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)
ARRA	80.8	81.0	70.3	0.2	0.2	10.7	13.2	290.0
Base	<u>95.7</u>	<u>95.0</u>	<u>94.1</u>	<u>(0.7)</u>	-0.7	<u>0.9</u>	0.9	<u>339.6</u>
Total	176.5	176.0	164.4	(0.5)	-0.3	11.6	6.6	629.5

Numbers are rounded to the nearest \$0.1M.

ARRA

CTD Schedule Performance: (+\$0.2M/+0.2%)

The Contract to Date Schedule Variance is within reporting threshold.

CTD Cost Performance: (+\$10.7M/+13.2%)

The primary contributor to the cumulative positive cost variance (~\$4.4M) is overhead allocations as discussed in Appendix C. Procurement of waste containers and metal pallets material/equipment to support the Solid Waste ready-to-serve mode, delay in receiving costs associated with waste disposition, under-runs caused by late hiring of ARRA funded staff, efficiencies recognized by brokering cross-cutting craft resources to other CHPRC projects, efficiencies being recognized during the asbestos removal campaign, and delayed subcontract costs associated with demolition dispersion and air modeling are also contributing to this cost variance (+\$7.3M). The positive cost variance is partially offset by accruals for the procurement of the chiller not being processed during the month of February, reallocation of resources to support removal of legacy combustible waste that would normally be performing glovebox decontamination and removal efforts, and utilization of overtime to maintain schedule in the 234-5Z Laboratory accounts. A BCR to transfer work scope associated with the 242Z, 2736Z/ZB, and Balance of 234-5Z projects to ARRA was processed in February. Transfer of this work scope is expected to off-set the projected cost under-run. Special attention will be made to ensure that accruals are processed for the procurement of the Chillers in the month of March.

Base

CTD Schedule Performance: (-\$0.7M/-0.7%)

The unfavorable schedule variance is associated with work in the 236Z (PRF) facility. Electrical issues on the PRF canyon crane identified during reactivation entries have led to more entries than originally planned. In addition, wiring corrections on the crane and crane adjustments identified during the functional testing are also contributing to this delay. Crane adjustments have contributed to the delay of the canyon floor cleanup and NDA of the pencil tanks. Assignment of two PRF D&D teams used to supplement the canyon crane crews for canyon entries and waste seal outs in support of the new combustible waste program, impacting work on the gallery glovebox equipment removal and removal of the pH and Pulsar gloveboxes is also contributing to this variance. In addition, until an evaluation for manual size reduction of the pencil tanks is completed, the procurement of the BROKK (remote handling system) has been put on hold. The schedule variance associated with the procurement of the BROKK

will continue pending the completion of the evaluation of the manual size reduction approach (~May 30, 2010). A BCR will be developed and implemented after the evaluation of the manual size reduction effort for the pencil tanks has been completed (~June 2010)

CTD Cost Performance: (+\$0.9M/+0.9%)

The cumulative favorable cost variance is a result of efficiencies recognized due to completion of the SNM De-Inventory work effort earlier than planned, recognized efficiencies to support the maintenance and operation of the PFP facility in a safe and compliant manner. In addition, Maintain PFP Safe and Compliant work scope due to reassignment of resources to support D&D efforts (i.e., Laundry, mask station, plastic shop etc.), and delayed procurement of the BROKK (PRF remote handling size reduction equipment) are also contributing to this variance. Partially offset by transfer of the 242Z and 2736Z/ZB work scope from Base to ARRA. Direction to make the transfer was received at the end of February and costs for the work performed were collected in the Base funded accounts. In addition, crane and rigging costs associated with the disposition of the un-Irradiated and slightly irradiated fuel, extra entries being made to reactivate the PRF canyon crane as higher electrical deficiencies were found, the use of overtime to recover schedule for the west gallery glovebox cleanout, are contributing to this variance. Cost corrections for the February charges from 2736Z/ZB and 242Z will be processed during the month of March. The project is continuing to evaluate alternative methods and identify efficiencies associated with the execution of the PRF, and Min-Safe work scope. With these efficiencies, early demolition of select Phase I ancillary facilities will be planned and executed.

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	FY 2010		
	Projected Funding	Spending Forecast	Variance
ARRA	121.7	111.3	10.4
Base	<u>57.1</u>	<u>55.8</u>	<u>1.3</u>
Total	178.8	167.2	11.6

Funds/Variance Analysis

Projected funding includes FY 2009 un-costed and FY 2010 expected new budget authority. The positive variance in RL-0011 Base reflects the movement of the 2736Z/ZB and 242Z work scope under ARRA.

Critical Path Schedule

Critical Path analysis can be provided upon request.

Estimate at Completion (EAC)

The BAC and EAC now include FY 2009 through FY 2018, the PRC contract period.

Baseline Change Requests

BCR-PRC-10-021R0, Transfer PFP D&D work scope from Base to ARRA.

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.