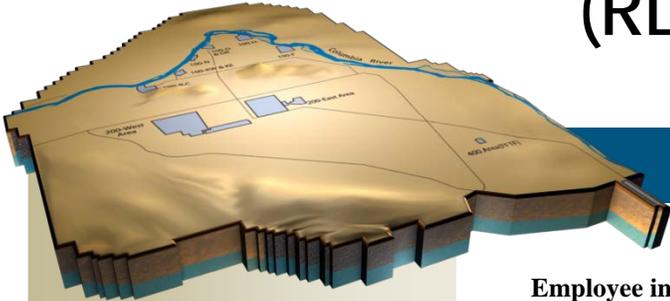


Section A

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



Monthly Performance Report

Employee in 242Z Control Room wearing Fram suit, removing legacy combustibles.



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PFP Closure Project

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Deliverable C.3.1.3.1 - 1



Room 235B Testing Glovebag on End of Conveyor HA-28

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 44 of the 188 gloveboxes and hoods in 234-5Z, five of which are staged for size reduction and disposal as Transuranic (TRU) waste. The remainder have been packaged and/or shipped for disposal as low level waste (LLW).

234-5Z Laboratory Areas – Chemical decontamination was completed on six gloveboxes in Room 136 and 149 of the Analytical Laboratory. Survey results indicate four of the boxes can be disposed of as low level waste. Two boxes from Room 149 will need to be size reduced and packaged for disposal as TRU waste. A decision was also made to size reduce three hoods from Room 137. A size reduction containment is planned in Room 172 for these and other gloveboxes that cannot be disposed of as LLW.

Plutonium Processing Areas – In RMC Line, Glovebox HC230C-2 was separated into its three original sections. The first section was removed, transferred to solid waste operations, and loaded into an IP-2 container for disposal. In RMA Line, external equipment isolation was completed, and a large glovebag was installed on the end of conveyor Glovebox HA-28 to facilitate installation of a load-out port for internal process equipment removal.

Infrastructure Systems – Non-destructive assay (NDA) measurements were completed on 40 feet of process vacuum piping, and walk downs were initiated for future removal of the process transfer lines throughout the 234-5Z Building. In addition, training and cold area mockups continued in preparation for removal of nearly a mile of heavily contaminated process vacuum system piping.

During the month of March, 657 feet of asbestos insulation was removed bringing the total for asbestos insulation removed with Recovery Act funds to more than 8,300 feet.

Installation of a large, electrically operated door and cargo seal was completed to streamline receiving of materials and shipment of waste.

Field construction forces removed a section of the former Protected Area fencing and razor wire and began mobilizing for installation of three new 300 ton chillers.

2736Z/ZB Vault Facility - The East and West Hoods were removed from the glovebox in Room 636 and transported to Waste Operations. In addition, glovebox process equipment removal commenced in Room 642.

242Z – Americium Recovery Facility - Several entries were made to remove legacy combustibles from the control room. Planning continued toward the repair of the roof and the application of contamination fixative throughout the interior of the building.

Base

236Z – Plutonium Reclamation Facility - Canyon entries to address issues identified during functional testing of the PRF crane have been completed. Process equipment removal continued on the first and second floor east gallery gloveboxes and preparations for removal of the Pulser and Ph gloveboxes.

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, Training needs analysis completed, Briefing drafted
		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 percent 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	2	3/25/10 – NCO complained of throat irritation, and then began to cough. The employee was transported to Kadlec and received prescription medication and told to remain off work for three days. (20819)
Total Recordable Injuries	1	2	Same as above
First Aid Cases	16	59	ARRA - 3/3 - Employee received abrasion to left knee. (20743) ARRA - 3/4 - Employee received finger laceration. (20750) ARRA - 3/4 - Employee experienced back spasm. (20755) ARRA - 3/9 - Employee experienced headache and light headedness. (20758) Base - 3/10 - Employee received finger laceration. (20759) Base - 3/11 - Employee received a paper cut. (20768) Base - 3/10 - Employee experienced elbow pain. (20761) Base - 3/12 - Employee experienced lower back strain. (20776) ARRA - 3/17 - Employee experienced lower back pain. (20804) Base - 3/23 - Employee received a laceration to finger. (20789) Base - 3/23 - Employee received an insect bite. (20791) ARRA - 3/25 - Employee experienced burning sensation in throat. (20797) Base - 3/29 - Employee experienced pain in ear after wearing ear plugs. (20808) Base - 3/31 - Employee experienced lower back strain. (20815) ARRA - 3/31 - Employee experienced mid back strain. (20816) Base - 3/25 – Employee received an insect bite. (20820)
Near-Misses	0	0	N/A

KEY ACCOMPLISHMENTS

11.02 Maintain Safe and Compliant PFP – Base

- An independent review of proposed changes to the Decontamination and Decommissioning (D&D) Documented Safety Analysis resulted in a positive Un-reviewed Safety Question determination relating to a non-conservative assumption in plutonium solubility (rate of biological absorption) classification. A Justification for Continued Operation was developed and submitted to RL.

11.05 Disposition PFP Facility - Base

Plutonium Reclamation Facility (PRF)

- Process equipment removal from the first and second floor east gallery gloveboxes was initiated and is approximately 20 percent complete.
- The heat detectors were removed from the Pulser charging and Room 42 column gloveboxes.
- Mock-up activities are under way for manual Pencil Tank size reduction.
- Several canyon entries were made to complete corrective actions from the crane functional testing.

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

- Completed the removal of external equipment and mechanical lines attached to conveyor HA-28 in RMA Line Room 235B.
- In RMA Line Room 232, completed gloveport activations on Glovebox HA-46 and Room 232A process wall gloveports. In addition, work continued to isolate the external process lines to Glovebox HA-46.
- In RMC Line Room 227, continued to isolate external process and chemical lines to Glovebox HC-227S.
- In RMC Line Room 230C, decontamination efforts on Glovebox HC-60 were completed and the preparatory steps were completed to start removing Glovebox HC-230C-2.
- In RADTU Room 235D, the isolation of the external utilities to GB400 were completed in preparation for the start of removing internal process equipment.

234-5Z Laboratories

Standards Lab:

- The 221D-1, 2, 3, 4, 5 Hoods were removed from their E4 connection and fixative was applied to the interiors. These hoods have been staged for transfer to the Solid Waste Organization for disposal.
- In preparation for removal from the E4 system, fixative was applied to the interior of the 221C-3 Glovebox.

Analytical Lab:

- In preparation for glovebox removal from the E4 system, chemical decontamination was completed and fixative applied to Gloveboxes 136-1 and 2.
- Chemical decontamination, application of fixative, and separation from the E4 connection was completed on Glovebox 149-3. The glovebox was transferred to the Solid Waste Organization for disposal.
- Chemical decontamination of 149-1 and 2 Gloveboxes was unsuccessful in achieving Surface Contaminated Object (SCO) levels. As such, fixative was applied to the glovebox internals and the glovebox was removed and staged for size reduction.

Plutonium Process Support Lab:

- In Room 191 the contaminated drain line, lab bench, and sink were removed. This will allow removal of the 191-1, 2, 3 hoods in the future.

242Z – Americium Recovery Facility

- Several entries were made to retrieve sample bottles from the control room and remove legacy combustible materials.
- Temporary power was established in Room 108 and 108a to support upcoming tank room entries.
- Entries were made for characterization of the gloveboxes for remote handled or contact handled waste determination. The dose characterization results indicated that the TRU waste from the gloveboxes will be contact handled and will not require the use of shielded waste containers.

2736Z/ZB – Vault Complex

- Removal of the East and West Hoods from Room 636 glovebox was completed.
- Process equipment removal from Room 642 gloveboxes was initiated.

MAJOR ISSUES

RL-0011 Nuclear Materials Stabilization and Disposition of PFP

Issue Statement – More effective decontamination agents for 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 the Environmental Restoration Disposal Facility (ERDF).

Corrective Action: A contract has been awarded for testing of Aspigel® to determine its suitability for use as a supplemental decontamination agent at PFP. Preliminary test results have been reviewed and appear promising. The final report is expected during the second week of April. PFP will also be observing a demonstration of another product, Decon Gel, at 100K in late May or early June. An alternate approach for characterizing and transporting gloveboxes for disposal at ERDF using the Contaminated Equipment – Special Package Authorization is also being used.

Issue Statement – Implementation of the 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. Changes to the implementing procedure are in progress, with completion planned for July 2010.

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-001: Inability to Effectively Decon Equip/ Materials to LLW	Develop decontamination approach and perform proof-of-principle testing early enough to minimize the potential for unanticipated TRU waste. Incorporate surgical removal of isolated TRU on gloveboxes into the baseline. Implement use of the Contaminated Equipment - Special Package Authorization (CE-SPA) process for cases where the Surface Contaminated Object (SCO) survey process is not practical. Establish size reduction stations as needed.	●	↑	RadPro is working well for decontamination of most gloveboxes. Testing on Aspigel® is nearing completion and results are expected in early April. Results have been obtained from SRS testing on Decon Gel, and it is likely there will be no issue with acceptance at WIPP. PFP will observe a DeconGel demonstration at K Area, which has been delayed to May. The CE-SPA process was successfully used to transport/dispose three gloveboxes in February, and five more boxes have been identified for this disposition path. Surgical removal of TRU and establishment of size reduction stations are incorporated in the baseline.
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.	●	↑	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.
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	●	↑	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.
PFP-009: Problems with Aging Building Systems/Components Impacts D&D	Perform critical system reliability assessments; procure critical spares; maintain existing redundancies; replace the 234-5Z filter room 310 filters; remove 234-5Z filter rooms 311 and 316 from service; replace 234-5Z TSR-related transmitter and controllers. Procure new Canberra 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-grade piping encasement to 241-Z are incorporated in PMB-2.	●	↔	A supplemental cooling system for the process facilities has been designed and mobilization for installation is in progress to support installation by early summer. A new condition involving corrosion of the structural supports for the 234-5Z air handling units was identified during a March inspection related to this project. Temporary supports will be installed under the air handling units as a precautionary measure. A damaged section of roof was identified at 242-Z that was likely responsible for previous water leaks; repairs are expected in early April. Development of a sampling and stabilization plan for the piping encasement to 241-Z is continuing.

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 (%)
ARRA	9.3	9.3	8.7	0.0	-0.1	0.6	6.4
Base	4.8	3.3	3.2	(1.5)	-31.4	0.1	2.9
Total	14.1	12.6	11.9	(1.5)	-10.8	0.7	5.5

ARRA

CM Schedule Variance: (-\$0.0M/-0.1%) Within Reporting Thresholds

CM Cost Variance: (+\$0.6M/+6.4%)

- +\$0.9M – Facility Modifications – Early completion of Chiller Design with delayed contract costs associated therewith. (Expect costs in April).
- +\$0.2M – Efficiencies recognized in asbestos removal and non process equipment from 234-5Z
- -\$0.5M – Utilization of overtime and Mission Support Alliance (MSA), LLC brokered resources to recover D&D schedule due to decontamination issues

Recovery – this positive cost variance is expected to continue to grow as more efficiencies are recognized during execution of D&D work scope.

Base

CM Schedule Variance (-\$1.5M/-31.4%)

- -\$1.5M – PRF (-\$1.1M BROKK Procurement, -\$0.3M Canyon Floor Cleaning, -\$0.1M Pulser Hood and PH Hood Removal).
- The schedule variance associated with the procurement of the BROKK will continue pending the completion of the evaluation of the manual size reduction approach (~July 2010). If manual size reduction is successful, a Baseline Change Request (BCR) will be developed and implemented. If unsuccessful, procurement of the BROKK will proceed. (Expected Recovery ~January 2011). The schedule variance associated with floor cleaning and hood removal is due to the increased duration for Crane Reactivation. Expected Recovery – August, 2010.

CM Cost Variance (+\$0.1M/+2.9%) Within Reporting Thresholds

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	90.1	90.3	79.0	0.2	0.2	11.3	12.5	290.0	277.2	12.8
Base	<u>100.5</u>	<u>98.3</u>	<u>97.3</u>	<u>(2.2)</u>	<u>-2.2</u>	<u>1.0</u>	<u>1.0</u>	<u>339.6</u>	<u>338.8</u>	<u>0.8</u>
Total	190.6	188.6	176.3	(2.0)	-1.1	12.3	6.5	629.5	616.0	13.6

Numbers are rounded to the nearest \$0.1M.

ARRA

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

CTD Cost Performance: (+\$11.3M/+12.5%)

- +\$6.7M – Efficiencies recognized on cross-cutting support to the D&D work teams (primarily in solid waste management, project management, NDA, and consumables and subcontracts)
- +\$2.0M – Efficiencies experienced in completing facility modifications and the removal of asbestos and non-process equipment from 234-5Z.
- +\$3.8M – Overhead allocations directly related to the PRC accounting practice of distributing cost based on the Project's actual cost (i.e., Project Services Distribution, General and Administrative, and Direct Distributables).
- -\$1.2M – Use of overtime and additional usage-based services (MSA Brokered Resources) to recover schedule on glovebox decontamination and disposition and delayed initiation of process vacuum system removal.

Recovery – this positive cost variance is expected to continue to grow as more efficiencies are recognized during execution of D&D work scope.

Base

CTD Schedule Variance (-\$2.2M/-2.2%)

- -\$2.2M – PRF (-\$1.4M BROKK Procurement, -\$0.6M Canyon Floor Cleaning, -\$0.2M Pulser Hood and PH Hood Removal).
- The schedule variance associated with the procurement of the BROKK will continue pending the completion of the evaluation of the manual size reduction approach (~July 2010). If manual size reduction is successful, a Baseline Change Request (BCR) will be developed and implemented. If unsuccessful, procurement of the BROKK will proceed. (Expected Recovery ~January 2011).
- The schedule variance associated with floor cleaning and hood removal is due to the increased duration for Crane Reactivation. Expected Recovery – August, 2010.

CTD Cost Variance (+1.0M/+1.0%)

- +\$1.3M – Early Completion of Spent Nuclear Material De-Inventory
- +\$1.6M – D&D Materials & Subcontracts and Waste Container Procurements, and recognized efficiencies in 242Z and 2736Z/ZB
- -\$0.6M – PRF – Increased overtime utilization to support crane reactivation and to begin schedule recovery for the floor cleaning and hood removal
- -\$1.3M – Usage Based Services – (Increased Cost in Training Tuition, Increased Costs in Facility Services due to the increased number of trailers to support the D&D work activities)

Recovery – this positive cost variance is expected to decrease with increased utilization of overtime to recover schedule associated with the canyon floor cleaning and PH and Pulser Hood Removal.

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		Variance
	Projected Funding	Spending Forecast	
ARRA	121.7	109.1	12.6
Base	<u>57.5</u>	<u>52.4</u>	<u>5.1</u>
Total	179.2	161.5	17.7

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 elimination of the “Q” shift resources planned for the PRF Pencil Tank Removal and the elimination of the PRF waste elevator.

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.

BCRA-PRC-10-026RC, Revision to PFP Waste & Glovebox Metrics.

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.