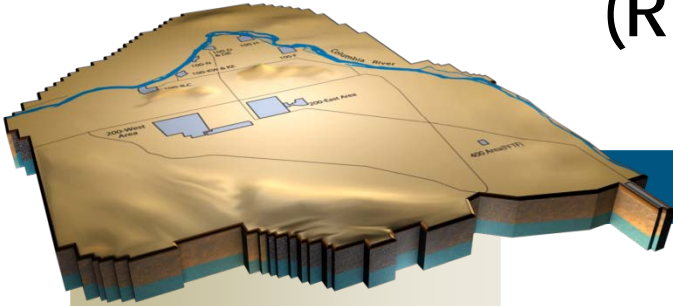


Section A

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



Monthly Performance Report

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242-Z Team Setting Up the Containment Tent for Sampling of
the Tank Room Atmosphere



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DOE/RL-2008-69, Rev. 14
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Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

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

American Recovery and Reinvestment Act (ARRA)

Modifications to the Standards Laboratory were initiated to remove portions of walls and enlarge doorways to facilitate removal of the remaining hoods and glove boxes from Room's 221-C and D. Planning preparations continued for a February start date of removal of the 5,500 feet of process vacuum lines from the facility. Fifty-seven glove boxes and laboratory hoods have now been cleaned out, decontaminated to low level waste standards and removed from PFP facilities since October 1, 2008, 34 of which were under ARRA. Decontamination of HC-230-C-3 is nearly complete. External mechanical isolations were completed on Glove Boxes HC-230-C-2, HC-60, and HA-19. Eight ventilated sample storage cabinets removed earlier from Room 174 were shipped to PermaFix Northwest for size reduction prior to final disposal at Environmental Restoration Disposal Facility (ERDF). Nine additional glove boxes and hoods previously removed from Rooms 146, 187, and 221-E were also loaded into a single IP-2 container for shipment to the ERDF.

The 2734-ZJ nitrogen storage tank was loaded on a trailer and returned to the vendor, and its structural support was removed to meet PFP's slab-on-grade endpoint. This is the second such structure removed from PFP with ARRA funding, and the third total under the PRC.

Insulators continued removal of asbestos insulation from piping in the 234-5Z Building, bringing the total removed under ARRA funding to more than 6,700 feet.

Base

Terminal cleanout operations are continuing in the 2736-Z/ZB Vault complex.

Deactivation and Decommissioning (D&D) teams continued removing process equipment from the Plutonium Reclamation Facility (PRF) (236-Z Building) gallery glove boxes. Removal of process equipment from the first floor west gallery glove box has been completed. Process equipment removal from the second floor west gallery glove box is 95 percent complete. PRF canyon work focused on replacing the old cable reel and cable with a new reel. Tank characterization continues on the RADTU tank located in the South canyon airlock.

Detailed planning continued for D&D work scope in the 242-Z facility to support initial entries in early February, and sampling of the 242-Z tank room atmosphere was completed.

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	On schedule
		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	0	0	N/A
Total Recordable Injuries	0	0	N/A
First Aid Cases	6	15	ARRA – 12/3 – Employee received contusion to left foot. (20586) ARRA – 12/6 – Employee felt lumbar strain. (20592) Base – 12/7 – Employee received bug bite to forehead. (20591) Base – 12/8 – Employee received laceration to head. (20604) Base – 12/17 – Employee pulled groin muscle. (20611) Base – 12/28 – Employee experienced a headache due to odor. (20615)
Near-Misses	0	0	N/A

KEY ACCOMPLISHMENTS

11.02 Maintain Safe and Compliant PFP – Base

- Comments were resolved from the RL Safety and Engineering Division review of the documented safety analysis and Technical Safety Requirement changes (letter CHPRC-0900668) to facilitate transition of the 2736-Z Complex into the D&D mission.
- Filter Room 314 damper repairs were completed which enabled successful performance of annual aerosol testing.
- Completed tie-in of 242-ZA fire sprinklers to Riser 7 in Corridor 10 of PRF.

11.04 Disposition Special Nuclear Material (SNM) - Base

- Initiated disassembly of the Lampson crane for relocation to the 200W interim storage area.

11.05 Disposition PFP Facility - Base

- Process equipment removal from the PRF second floor west gallery glove box is 95 percent complete.
- Progress continued with the PRF canyon entries for reactivation of the canyon crane with only electrical work left.
- South canyon airlock work continues for characterization/disposition of the RADTU tank.
- Sampling of the 242-Z tank room atmosphere was completed. The results indicated less than reporting detection limit or levels of no concern. No additional controls are required for entries into the tank room.
- Equipment setup for 242-Z entries is underway, temporary load centers being staged for the entries.
- Initiated planning/statement of work for the installation of an HVAC unit in 2727-Z to support

use of the facility for dressing and supply storage.

- Initiated planning for temporary power to support PRF and 242-Z operational support trailers and 2727-Z.
- Initiated fabrication of shielded drum liners for use for disposing of the 242-Z glove box equipment.
- Removed the HEPA-6-25A high gram value filter from Room 642 of 2736-ZB.
- Released the work package to perform electrical isolation of Room 636 Glove Box in 2736-ZB.
- Released the work package to perform mechanical isolation of the liquid nitrogen generator attached to 2731-ZA

11.05 Disposition PFP Facility – ARRA

- Room 187 Hoods 1,2,3,4,5:
 - applied fixative
 - separated the hoods from their E4 connections
 - removed the hoods and turned them over to Waste for disposal
- Room 146-5 glove box:
 - performed decontamination of internal surfaces
 - applied fixative
- Room 136-1,2,3 glove box:
 - completed removal of electronic cabinetry
 - removed the 26-inch vacuum piping
- Separated Room 221E Hoods (221E-1, 2, 3) from their E4 systems, and transferred them to Waste for disposal.
- Completed Room 230C internal equipment removal and external mechanical isolations on Glove Box HC-60.
- Completed the mechanical isolations on glove box HC-230C-2. Nondestructive assay of the process exhaust duct and drains are 80 percent complete.
- The mechanical isolation for Glove Boxes HA-19B1 and HA-19B2 in Room 235B was completed and the removal of internal process equipment initiated.
- A new crew in Room 227 started activating Glove Box HC-227S and mobilized to isolate process lines external to this glove box.
- A new crew in Room 232 started activating glove ports on Glove Box HA-46. Shipped nine glove boxes to ERDF and eight glove boxes to PermaFix for waste disposition. These glove boxes were removed from “A” Labs, Standards Labs, and Plutonium Process Support Laboratories.
- Widened two doorways in the Standards Lab to allow for future removal of glove boxes.
- Removed the liquid nitrogen storage Tank 2734-ZJ and returned it to the vendor.
- Removed security equipment from 2701-ZD Badge House.
- Completed Waste Identification walk downs for eleven buildings in support of planning to take facilitates to “for ready for demolition” status.
- Performed technical evaluation and awarded contract to acquire (3) 300 ton York Air Cooled Screw Compressor Chillers for 234-5Z and 236-Z facility cooling.
- Completed preparing an additional PPE dressing location (i.e. change room) and placed in service. This additional dressing area is expected to improve efficiencies in getting field work teams to the D&D work locations
- Facility modifications to enable remote monitoring of Criticality Alarm System Panels 7 and 9 in the 321 power control room have been completed, eliminating the last active function in the now-deactivated PFP Central Alarm Station.

MAJOR ISSUES







RL-0011 Nuclear Materials Stabilization and Disposition of PFP











Issue Statement – An additional decontamination process for PFP glove boxes/hoods with contamination etched into the stainless steel by historical liquid chemical processes is not currently available. Technical issues have also been identified with the application of the surface contaminated object (SCO) process to glove boxes with previously inaccessible surfaces.

Status – A comprehensive review of available decontamination processes and agents has been completed. Additional testing will be performed on Aspigel[®] to determine its suitability as a decontamination agent. Aspigel[®] utilizes a decontamination technology that is different from that of RadPro[®] and will provide an effective option for difficult applications. The SCO survey process and non-destructive assay are also being utilized where practical, to support glove box characterization and verify conformance with waste acceptance criteria. An alternate process for characterizing and transporting qualifying glove boxes for disposal at ERDF as low-level waste has been developed and is being implemented.

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-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. Establish size-reduction containment with robust tools.			Planning in progress to evaluate alternative decontamination process techniques and agents. Testing will follow. Provisions for surgical removal are complete. Planning is underway for size-reduction containment. Process improvements to the Surface Contaminated Object survey process and implementation of an alternative process to support waste designation and transportation are in progress.
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.			An improved approach has been identified for removal and disposition of pencil tanks in the PRF canyon.
PFP-004A: Risk of 291-Z D&D cost/schedule growth	Complete detailed planning/engineering for D&D of 291-Z, particularly characterization to quality scope.			Characterization of 291-Z 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. Procure new, Canberra continuous air monitors (CAMs) to replace less reliable existing CAMs.			
PFP-009: Aging Building Systems Impact D&D/PRC-020: Weather Delays	Resolve high temperatures experienced in PFP D&D areas.			A cooling system has been designed and will be installed.

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	3.2	7.4	7.0	4.2	131.9	0.5	6.1	255.5
Base	<u>5.7</u>	<u>7.4</u>	<u>4.0</u>	<u>1.7</u>	29.1	<u>3.3</u>	45.0	<u>395.0</u>
Total	8.9	14.8	11.0	5.9	66.1	3.8	25.4	650.5

Numbers are rounded to the nearest \$0.1M.

ARRA

CM Schedule Performance: (+\$4.2M/+131.9%)

The current month positive schedule variance is a direct result of point adjustments associated with the implementation of the Advanced Work Authorization (AWA), largely due to realignment of D&D work scope to support start of field work due to nationwide impact associated with Radiological Controls Technician shortage. Beginning in January, PFP performance will reflect an on schedule or ahead of schedule status.

CM Cost Performance: (+\$0.5M/+6.1%)

The current month positive cost variance is a direct result of point adjustments associated with the implementation of the AWA, largely due to realignment of D&D work scope to support start of field work due to nationwide impact associated with Radiological Controls Technician shortage.

Base

CM Schedule Performance: (+\$1.7M/+29.1%)

The current month positive schedule variance is a direct result of point adjustments associated with the implementation of the AWA. Beginning in January, PFP performance will reflect an on schedule or ahead of schedule status.

CM Cost Performance: (+\$3.3M/+45.0%)

The favorable cost variance is a direct result of point adjustments associated with the implementation of the AWA. Contributing to the point adjustment was budget added-and performance earned for the first three months of the fiscal year for MinSafe Operations. In addition, G&A under-run, and re-planning PRF to align with the new remote handling approach and the recent bottoms-up estimate developed for the 242-Z work scope are also contributing to this 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)
ARRA	66.5	66.8	55.4	0.3	0.4	11.3	16.9	255.5
Base	<u>88.3</u>	<u>88.4</u>	<u>87.2</u>	<u>0.0</u>	0.1	<u>1.2</u>	1.4	<u>395.0</u>
Total	154.8	155.1	142.6	0.3	0.2	12.5	8.1	650.5

Numbers are rounded to the nearest \$0.1M.

ARRA

CTD Schedule Performance: (+\$0.3M/+0.4%)

Within reporting threshold

CTD Cost Performance: (+\$11.3M/+16.9%)

The primary contributor to the cumulative positive cost variance is overhead allocations (i.e., Project Services Distribution, G&A, and Direct Distributables). The project is experiencing a labor rate under-run, which contributes \$2M to the positive variance. This is due to overstatement of D&D resources for cross-cutting support, and Mission Support Alliance-supplied craft budgeted as labor and costed as subcontract. Delayed procurement of waste containers, metal pallets and NDA support material/equipment, delay in receiving costs associated with waste disposition, and delayed subcontract cost associated with demolition dispersion and air modeling are also contributing to this cost variance. PFP is currently working closely with RL to evaluate funding two additional sub-projects with ARRA funds to fully utilize the past under-runs, and will off-set the large forecasted year-end positive spending variance projected for Fiscal Year 2010.

Base

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

Within Reporting Threshold

CTD Cost Performance: (+\$1.2M/+1.4%)

The cumulative favorable cost variance is a result of efficiencies recognized due to completion of the SNM De-Inventory work effort earlier than planned, allowing early work efforts on the D&D of the 2736-Z/ZB vaults, recognized efficiencies to support the maintenance and operation of the PFP facility in a safe and compliant manner, and a labor rate under-run. This is off-set by 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 glove box cleanout, and higher than planned overhead allocations (i.e., Project Services Distribution, G&A, and Direct Distributables).

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	124.7	106.5	18.2
Base	<u>57.1</u>	<u>65.3</u>	<u>(8.3)</u>
Total	181.8	171.8	9.9

Funds/Variance Analysis:

Projected funding includes FY 2009 uncosted and FY 2010 expected new budget authority. The negative variance in RL-0011 Base (-\$8.3M) reflects a newly planned approach in the Plutonium Reclamation Facility (PRF) and continuing min-safe operations in the 2736Z/ZB vaults until the facility is demolition ready in the first quarter of FY 2011. Funds management coupled with efficiencies from implementation of the new approach in PRF will mitigate the variance pending further discussion with RL.

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:

AWA-PRC-10-017.

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.