

Plutonium Finishing Plant Project

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2734-Z Dismantlement



Solutions Processing Completion



OVERVIEW

The Plutonium Finishing Plant Project is responsible for work in Project Baseline Summary (PBS) RL-CP03, *Plutonium Finishing Plant (PFP)*.

NOTE: Unless otherwise noted, all information contained herein is as of the end of March 2003.

NOTABLE ACCOMPLISHMENTS

Stabilization of Nuclear Materials

Metals, Alloys, Oxides and Polycubes: Ninety-six oxide items were processed during the reporting period. As of March 23, 2003 1,004 oxide items have been processed under the 2736ZB work scope. The 1,004 items surpassed our contract-to-date goal by 17 items.

The following are related to the High Chloride Oxides:

- Modification work on the muffle furnaces in glovebox HC-21C was completed.
- In glovebox 230-C3, demolition work was completed. Electrical modification work continued and mechanical modification work was initiated, both with projected completion dates in late April.
- Planning for the startup review for the High Chloride Oxide Washing process was initiated. The Startup Notification Technical Description and Startup Implementation Plan have been approved, and the Startup Checklist is being prepared. The Startup Review is currently scheduled for completion in mid-April 2003.
- The prompt gamma non-destructive analysis (NDA) equipment for measuring the chloride levels was put into use.
- Work by the Technical Equivalency Team on development of the equivalency for low temperature stabilization of PFP chlorinated oxides continues. Personnel from DOE-Albuquerque, Los Alamos National Lab, Savannah River Technical Center, Rocky Flats Environmental Technology Site, PFP and Pacific Northwest National Labs are on the team. Status meetings are being held twice weekly. Submittal of the technical basis to DOE is currently planned for mid-May 2003.

Residues

- During the reporting period, 64,269 grams of oxide/Mixed Oxide (MOX) were packaged into 82 Pipe Overpack Containers (POCs).
- Calorimeter AR-1 and Room 172 Segmented Gamma Scan Assay System (SGSAS) were qualified for Waste Isolation Pilot Plant (WIPP) and safeguards measurements.
- Acceptance testing of calorimeter AR-8 was completed. Calibration measurements were initiated.
- The approval to terminate safeguard on the 919 items of 10-30% low assay oxide/MOX was received from the Department of Energy.
- Completed the residues MOX.

Outer Can Packaging: A total of one hundred 3013 containers were produced during this reporting period. A total of four hundred seventy-one 3013 containers have been produced during this fiscal year, eighty-nine containers ahead of the fiscal year (FY) 2003 production baseline.

Disposition of Nuclear Material

The Solid Waste Operations Group shipped 152 containers, which consisted of Hazardous, Low-Level Mixed, Transuranic, Transuranic Mixed Waste and POC Shipments.

Disposition PFP Facility

D&D Crosscut

- 'Ready For Demolition' activities were completed in 234-5Z Bldg, Rooms 336 and 337 (Performance Incentive number S-5, Performance Objective 1, 6.I.). This is the first work set completed under the new contract's S-5 performance incentive.
- Training of the newly hired staff for three additional deactivation and decommissioning fieldwork teams and a dedicated nondestructive analysis (NDA) team is progressing as scheduled.
- Initial evaluation of the waste disposal process logic for transuranic (TRU) and low level waste (LLW) was completed and flowcharts reflecting current practices were completed. Recommendations for streamlining and needed changes to the TRU waste disposal practices were identified. Discussions are underway with interfacing organizations to evaluate needed changes.
- Initiated development of the technical basis to adopt the Rocky Flats process for radiological characterization of large contaminated waste items for shipment and disposal as Surface Contaminated Object/Low Level Waste (SCO/LLW). Completed modification of Hanford standard Portable Alpha Monitor survey instruments for high-range alpha measurements required for radiological characterization of decontaminated TRU waste items for disposal as LLW. These instruments should provide compatible capabilities to instrumentation used at Rocky Flats.

Transition 232-Z Facility

- A pre-decisional draft of the Engineering Evaluation/Cost Analysis (EE/CA) for 232-Z deactivation and decommissioning has been provided via DOE to the Washington State Department of Ecology (Ecology) and the Environmental Protection Agency (EPA). This document will be formally transmitted to DOE in April.
- Utility isolation began in 232-Z on March 31, 2003. Pre-deactivation and decommissioning housekeeping and maintenance activities have continued. The first ten gloves were changed out. Calibration and installation of differential pressure gauges on the glovebox has been completed.
- A Safety Equipment List (SEL) was modified and released for deactivation and decommissioning of Building 232-Z as required by the project.

Transition 234-5Z Facility

- Legacy Holdup Removal and Disposition concepts were presented to Protection Technology Hanford (PTH) and separately to RL. The material was received favorably, generating dialogue between all parties and a mutual understanding of the challenges.
- Continued working the project logic to develop independent project work sets (per the S-5 Performance Incentive milestones) and to complete all Performance Incentive work by September 30, 2006. The re-sequencing is focusing on in-place size reduction strategies that may reduce the number of size reduction stations by 75%.
- Further legacy holdup removal was completed on glovebox HC-7C hot spots and ceiling. A final NDA was completed with results expected in early April. Approximately half of the holdup material removed from glovebox HC-7C has been dispositioned to the Central Waste Complex (CWC), contributing to Performance Incentive number S-3, Performance Objective 2c. Planning for work packages for glove boxes HC-9B, HA-7A and HA-9 continued this period, with glovebox HC-9B completion anticipated ahead of schedule in early April.
- Three post-job review meetings were conducted on the HC-7C glovebox plutonium holdup removal work. The objective was to gather lessons learned on what worked well and recommend areas of needed improvement.

Transition 236-Z Facility: Planning for legacy plutonium holdup removal from the Plutonium Reclamation Facility (PRF) Glove boxes Miscellaneous Treatment (MT)–1 through MT-6 has been completed.

Transition 241-Z Facility: A fieldwork team supervisor was hired on March 17, 2003 to support the planned 241-Z work activities. An alternative-monitoring plan for the 241-Z Stack was transmitted via letter to RL on March 21, 2003 to obtain EPA approval.

Transition 241-Z-361 Facility: Technology vendors provided preliminary proposals on March 15, 2003, for use in the EE/CA for retrieval of Tank 241-Z-361 sludge. After detailed evaluation of the proposals, the results were presented to PFP senior management and to Central Plateau Remediation Project management for informational purposes.

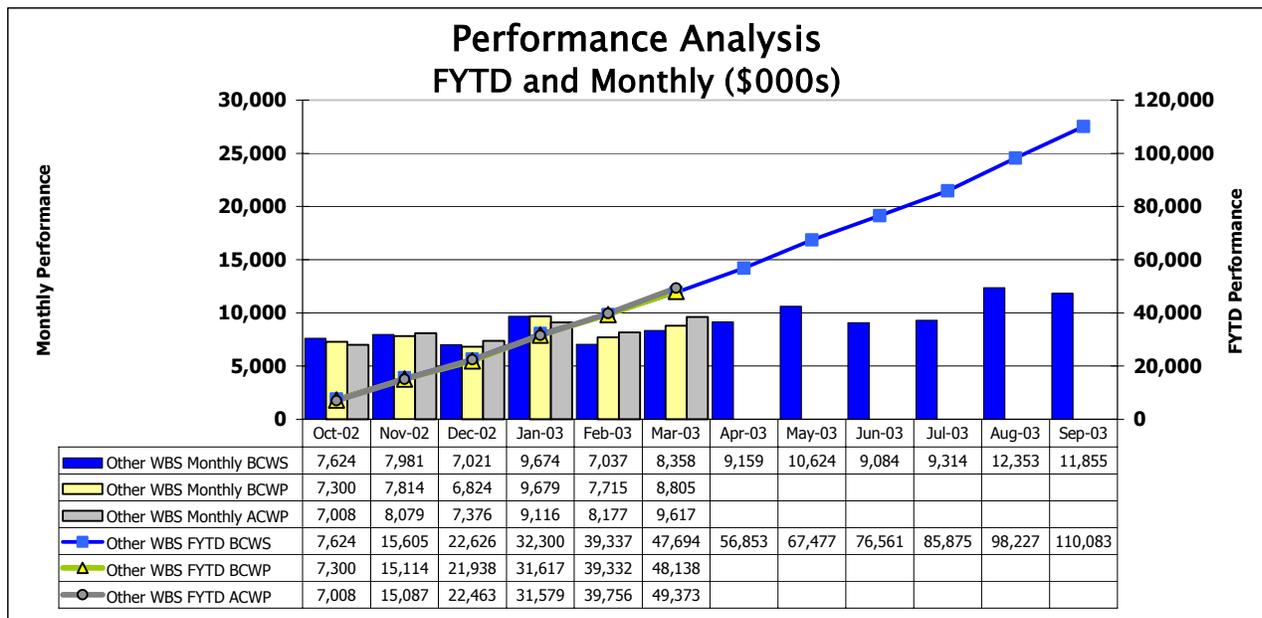
FY 2003 SCHEDULE/COST PERFORMANCE ALL FUND TYPES (\$000)

Schedule Variance: (\$444K/1%): Variances are within the threshold (+/- 10% or \$1M); therefore no variance analysis is provided.

Cost Variance: (-\$1,235K/-3%): The negative cost variance of -\$1,234.9K is attributed to the following three items: A negative variance of -\$199.4K is the result of the re-calibration of the pressure gauges and task close out for the 3013 canisters Monitoring System. A negative variance of -\$1,907.9K is the result of underestimated cost in dosimetry, Hanford Environmental Health Foundation, Westinghouse management contract and costs associated with accelerated closure planning. The above negative cost variances are offset by \$175.2K of better-than-expected productivity within the planning process of *Disposition PFP Facility*, \$563.1K of labor under runs in *Disposition SNM* and \$244.4K increased productivity in *Stabilization*. PFP continues to apply internal management control on staff hiring, subcontracts, procurements and overtime.

	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
RL-CP03 Plutonium Finishing Plant	47,694	48,138	49,373	444	1%	-1,235	-3%	110,083

FY 2003 Schedule/Cost Performance, continued



MILESTONE ACHIEVEMENT

Number	Milestone Title	Type	Due Date	Actual Date	Forecast Date	Status/Comments
TRP-03-501	Submit Facility End Point Criteria Document to Ecology	TPA	9/30/03			On Schedule
TRP-03-503	Submit to Ecology a PFP Residual Chemical Hazards Assessment	TPA	12/31/02	12/27/02		Complete
TRP-03-504	Submit Closure Plan for 241-Z Waste Treatment Facility TSD Unit to Ecology	TPA	7/31/03			On Schedule
TRP-04-506	Completion of all Pu Stabilization & Packaging	PI	2/18/04			On Schedule
TRP-04-508	Complete Repackaging of PFP Residues and Ship to CWC	TPA	4/30/04			On Schedule
TRP-05-501	Discontinue Waste Discharges from the 241-Z Tanks to Tank Farms	TPA	6/30/05			On Schedule
TRP-05-503	Special Nuclear Material Transferred to Savannah River Site of DOE Approved Interim Storage	PI	9/30/05			On Schedule
TRP-05-504	Legacy Pu Holdup Removed & Dispositioned	PI	9/30/05			On Schedule
TRP-06-501	Complete 100% of Legacy Pu Holdup Removal & Disposition	TPA	9/30/06			On Schedule
TRP-06-502	Complete Transition & Dismantlement of the 232-Z Bldg Incinerator	TPA	9/30/06			On Schedule
TRP-06-503	Protected Area Eliminated	PI	12/31/05			On Schedule
TRP-06-507	PFP Facilities (61 Buildings) Ready For Demolition	PI	9/30/06			On Schedule

FY 2003 FH FUNDS VS FORECAST (\$000)

	Expected Funds	Spend Forecast	Variance
RL-CP03 Plutonium Finishing Plant	\$ 109,210	\$ 109,210	\$ 0
Project Completion - Operating			

Corrective Actions: Continue to apply internal management control on staff hiring, subcontracts, procurements and overtime.

ISSUES

Shipment of the first 3013 containers to Savannah River Site (SRS): PFP continues working with DOE (RL, HQ and SRS) to resolve and complete all activities needed to make the first shipment of material from PFP to SRS. FH's goal is to make one shipment in June 2003 to verify readiness.