

Nuclear Material Stabilization and Disposition

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232-Z Decommissioning in Progress



Legacy Holdup Removal Activities

OVERVIEW

This section addresses work in Project Baseline Summary RL-0011, Nuclear Material Stabilization and Disposition.

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

NOTABLE ACCOMPLISHMENTS

Maintain Safe and Secure Special Nuclear Materials (SNM)

Received two interim storage casks from the Fast Flux Test Facility as planned.

FH successfully completed the fourth swap, which transferred the Special Nuclear Material (SNM) from International Atomic Energy Agency vault number three to other locations. The fifth and final swap is scheduled during the next two months. This swap must be completed in order to complete the major Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 2000-1 Milestone on stabilization.

MAINTAIN SAFE AND COMPLIANT PLUTONIUM FINISHING PLANT (PFP)

The National Emissions Standard for Hazardous Air Pollutants compliance for inspection, calibration and leak test for the 296-Z-7 Stack and the 291-Z-1 Stack was met on November 13, 2003, one month ahead of schedule.

Stabilization of Nuclear Materials

Metals, Alloys, Oxides and Polycubes: Through November 30, 2003, 403 items were stabilized and packaged into DOE standard 3013 containers. Fiscal year to date oxide stabilization progress is 20 items behind schedule out of a planned 1,230 items. However, contract to date, stabilization progress is 60 items ahead of schedule, out of 4,770 items planned. At this time the only remaining category of material open to complete the major DNFSB Recommendation 2000-1 Milestone on stabilization, which is due May 2004, is forecast to complete in January 2004.

Outer Can Packaging: Through November 30, 2003, one hundred and one 3013 cans were generated. Continued efficiencies in the canning process are being realized with fewer cans needed to package the overall planned number of items. The PFP Stabilization Completion Plan is expected to be complete in December. This project plan describes the remaining activities and critical interfaces associated with completing the scope of the SNM Stabilization Project.

DISPOSITION OF NUCLEAR MATERIALS

The contract for the procurement of a non-destructive analysis measurement (box counter) was issued December 4, 2003. Delivery of this equipment, expected in December 2004, will reduce waste handling and associated costs by enabling more waste items to be inserted into a standard waste box.

NOTABLE ACCOMPLISHMENTS, CONTINUED

Disposition PFP Facility

Transition 232-Z Facility: The 232-Z Engineering Evaluation/Cost Analysis was submitted to RL on November 24, 2003. Stakeholder (Washington State Department of Ecology [Ecology], U.S. Environmental Protection Agency, Hanford Advisory Board, and Tribal Nations) and public review of this document is scheduled for December 15, 2003, through January 30, 2004.

In November, progress in the 232-Z facility focused on the incinerator glovebox, where process piping and firebrick was dismantled and packaged in seal-out bags. Due to airborne contamination problems, the entire process room was sprayed with a fixative to minimize the potential for airborne contamination during dismantlement activities.

A 232-Z Process Improvement Workshop was conducted on November 4 and 5, 2003. Participants included operators, radiological control technicians, waste management personnel, and project personnel. This workshop streamlined project planning and improved the team's knowledge of the detailed activities required to complete demolition of the 232-Z facility to a slab-on-grade end point. Additionally, numerous deactivation and decommissioning (D&D) improvements were identified as well as areas for further study.

Transition 236-5Z Facility: The Plutonium Reclamation Facility canyon crane was successfully reactivated on November 14, 2003. The operability of this crane is on the critical path for future legacy holdup removal and canyon cleanout activities.

Transition 241-Z Facility: The final 241-Z notice of construction (NOC) was approved by the Washington State Department of Health on November 24, 2003. This NOC supports the tank D-5 pump replacement in addition to follow-on D&D activities.

Legacy Holdup Removal and Disposition: The first ten percent increment of plutonium removal/disposition removed from gloveboxes HC-7C, HC-9B, MT-5 and MT-6 was completed November 14, 2003, approximately two weeks ahead of schedule.

The D&D Project has developed a seal-out process for removal of glovebox process equipment that has significantly improved productivity and reduced employee exposure. This productivity improvement utilizes a stainless steel pot inserted into the glovebox that allows for increased volume of process equipment to be removed, thereby reducing the number of seal-outs. This enhancement is being adopted by D&D and other operating organizations.

Laboratory Transition: The Laboratory Transition Plan is being drafted and is expected to be issued in December 2003. This plan identifies what actions are necessary to deactivate the Analytical, Plutonium Process Support and Standards Laboratories while still maintaining capabilities to support the D&D Project.

Maintain Transition Program: A FH and RL retreat was held November 14, 2003. The scope and focus of this meeting included the discussion of the Nuclear Material Stabilization Project's objectives, strategies, impacts and concerns.

NOTABLE ACCOMPLISHMENTS, CONTINUED

Transition Operations Support: A letter was issued October 31, 2003, to RL requesting devaluation of the PFP's non-operational and low value equipment. RL approval, expected in early December, allows for the timely removal of equipment that supports FH, Ecology, Environmental Protection Agency and RL performance commitments.

ISSUES

De-inventory Delay: DOE's direction to delay PFP Deinventory will require major revision of the PFP Closure Project baseline, including Performance Incentive revisions.

FY 2004 FH FUNDS VS FORECAST (\$000)

	FY 2004 Anticipated Funding w/Carryover	FY 2004 Fiscal Year Spend Forecast	Variance
RL-0011 Nuclear Materials Stabiliation & Disposition	\$ 179,952	\$ 167,893	\$ 12,059

Spend forecast includes the de-inventory delay option

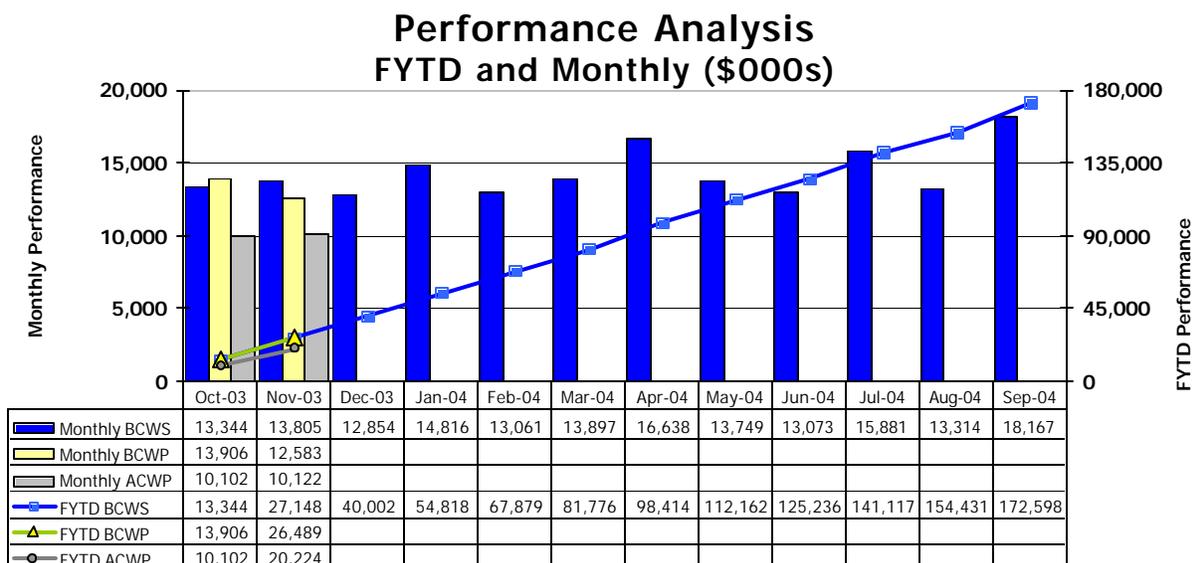
FY 2004 SCHEDULE/COST PERFORMANCE (\$000)

	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-0011 Nuclear Materials Stabilization & Disposition	27,148	26,489	20,224	-659	-2%	6,265	24%	172,598

NOTE: Numbers are rounded to the nearest \$K.

Schedule Variance (-\$659K/-2%): Significant schedule variance is being incurred due to delay in the Plutonium de-inventory. The negative variance is partially off-set by the early completion of residues packaging in FY 2003. Re-planning is being initiated to document the baseline impacts associated with a two-year delay in de-inventory.

Cost Variance (\$6,265K/24%): The favorable fiscal year to date cost variance is due to outstanding performance in three primary areas: Stabilization, D&D and Closure Services Allocation. Stabilization progress is significantly ahead of schedule due to FY 2004 work scope and corresponding costs accelerated into FY 2003, while performance is claimed in FY 2004; and the missed accrual (cost) for pipe overpack containers while taking credit for performance. For D&D work scope, an under-reported progress of accomplished work, specifically plutonium legacy holdup, in September was corrected in November. Also, partial performance on the staff ramp-up was claimed, since staff has been hired, with minimal costs to date. The Closure Services Allocation also contributed to the positive cost variance as a result of hold back on contracts due to continuing resolution and other miscellaneous adjustments. No corrective actions are necessary at this time.



MILESTONE ACHIEVEMENT

Number	Milestone Title	Type	Due Date	Actual Date	Forecast Date	Status/Comments
TRP-02-501	Complete Stabilization and Packaging of Polycubes	DNFSB	3/31/03	2/28/03		Complete
TRP-03-501	Submit Facility End Point Criteria Document to Ecology	TPA	9/30/03	9/30/03		Complete
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	7/25/03		Complete
TRP-04-506	Completion of all Plutonium (Pu) Stabilization & Packaging	PI	2/18/04			On Schedule
TRP-04-508	Complete Repackaging of PFP Residues and Ship to Central Waste Complex (CWC)	TPA	4/30/04			Repackaging is complete. Shipment to Central Waste Complex will be impacted since request to lower the attractiveness level D was denied. BCR in process.
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			DOE's direction to delay PFP de-inventory will require major revision of PFP Closure Project Baseline
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			In jeopardy due to delay in plutonium de-inventory
TRP-06-507	PFP Facilities (61 Buildings) Ready For Demolition	PI	9/30/06			On Schedule