

# Nuclear Material Stabilization and Disposition (RL-0011)

D. B. Klos, Vice President of  
Plutonium Finishing Plant Closure Project/  
(509) 373-3574

*232-Z Scrubber Cell Entry*



*Glovebox ports that have  
been pie-plated for long term  
plutonium contamination control*



## 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 December 2005.

## Notable Accomplishments

### Disposition the Plutonium Finishing Plant (PFP) Facility

- The 234-5Z/236-Z lay-up team pie-plated 263 glove box ports for a total of 1,045.
- Twenty-two (22) solution containers were shipped for a total of 326 through December 31, 2005 ports.
  - This progress completes the second increment of the solution container performance incentive.
- The 241-Z team made entries into the D-8 pit this month loading out process equipment waste, installing handrails around the grating access at the top of the tank, and installing ducting for the purpose of moving the air below the grating level.
- Five (5) 232-Z process cell tasks were completed, for a total of 18 to date through December 31, 2005.
  - The following scrubber cell entry activities were completed:
    - Installed a containment tent to fog the scrubber cell.
    - Removed 14 Transuranic (TRU) waste packages to Standard Waste Box (SWB) No. 4.
    - Removed two TRU drums.
- The revised PFP Quality Assurance Program Plan was issued, incorporating Security Enhancement Program activities.
- The functional design criteria (FDC) was completed for the new Interim Secure Storage Facility (ISSF) at PFP.
  - The FDC has been transmitted to RL for review and comment.
- Demolition of 2734-ZF/ZG was completed.
- The replacement of the 2736-ZA air dryer was completed.
- The preliminary fire hazards analysis for ISSF was issued on December 22, 2005.
- Results of the Resource Conservation and Recovery Act of 1976 (RCRA) sampling of the 241-Z Cell D8 piping in December were received.
  - Preliminary indications are that the contaminants of concern are below regulatory levels.
  - These representative results can be used to close a good portion of the 241-Z piping in accordance with the 241-Z RCRA Closure Plan.

## FY 2006 Funds vs. Spend Forecast (\$M)

	Projected FY 2006 Funding	FY 2006 Fiscal Year Spend Forecast	Variance
Nuclear Materials Stabilization & Disposition	\$ 128.4	\$ 129.3	\$ -0.8

## FY 2006 Schedule/Cost Performance (\$M)

	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
Nuclear Materials Stabilization & Disposition	\$27.4	\$25.7	\$27.9	-\$1.7	-6.0%	-\$2.2	-8.4%	\$116.3

Numbers are rounded to the nearest \$0.1M and include the closure services allocation.

**Schedule Performance: (-\$1.7M/-6.0%):** Primary contributors to the unfavorable schedule performance include:

- Behind schedule on Min Safe special projects
- 234-5Z and T Plant size reduction work scope planned in FY 2006 but performed in FY 2005; apportioned support activities behind due to delayed Decontamination and Decommissioning
- Behind schedule on 241-Z modifications for turnover due to delayed start on drills, team building (due to bump and roll), and redirection of staff to support glovebox cleanout; behind schedule on ISSF Conceptual Design Report (CDR); 241-Z modifications will continue behind schedule pending Baseline Change Request (BCR) to reflect revised path for ISSF

Negative schedule variance partially offset by:

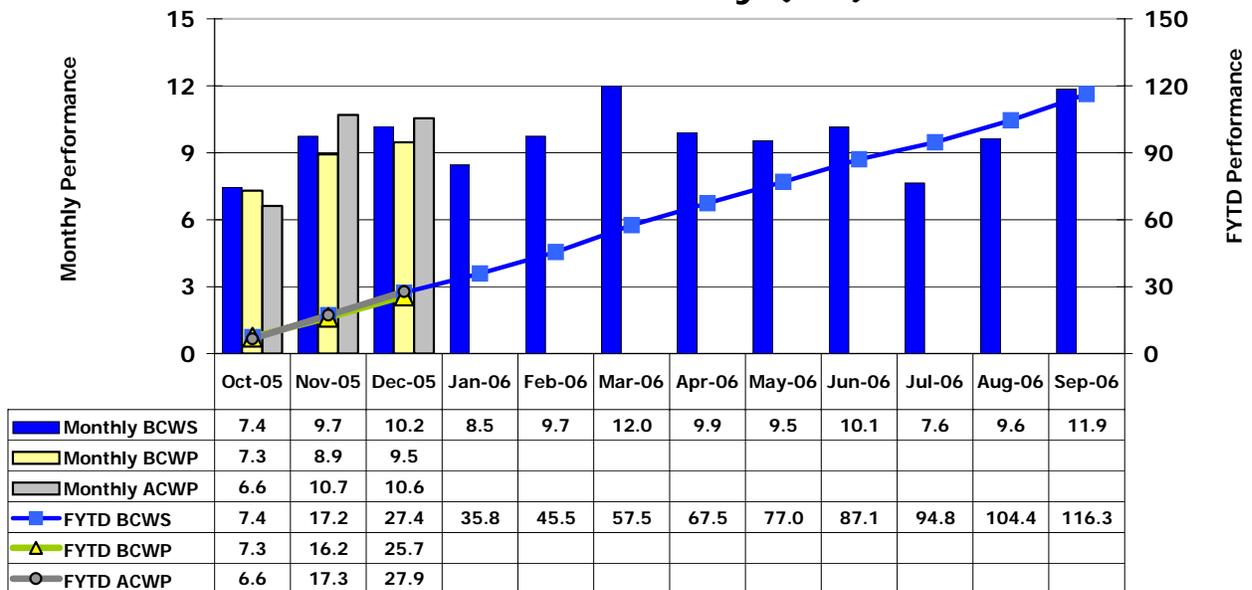
- Recovery of FY 2005 lay-up scope and FY 2005 carryover scope for fuel moves in support of Material Access Area (MAA) elimination.

**Cost Performance: (-\$2.2M/-8.4%):** Primary contributors to the unfavorable cost variance include:

- Increased nuclear safety support required;
- Behind schedule status of D&D activities and associated apportioned D&D support activities;
- Time-phasing of assessments;
- 241-Z unplanned/increased scope associated with issues resolution and emergency preparedness and redirected project objectives.

## FY 2006 Schedule/Cost Performance, continued

### Performance Analysis FYTD and Monthly (\$M)



### Milestone Achievement

Number	Milestone Title	Type	Due Date	Actual Date	Forecast Date	Status/Comments
TRP-05-501 TRP-05-506	Discontinue Waste Discharges from the 241-Z Tanks to Tank Farms	TPA PI	6/30/05	12/13/04		Complete
TRP-05-504	Complete Pu Legacy Holdup Removal	PI	9/30/05	6/30/05		Complete
TRP-05-505	Transition 10 Facilities to Slab-on-Grade	PI	9/30/05	5/22/05		Complete
TRP-06-500	Decontaminate Glovebox HA-20MB	TPA	3/31/06	10/28/04		Complete
TRP-06-501	Complete Pu Legacy Holdup Removal	TPA	9/30/06	6/30/05		Complete
TRP-06-507 TRP-06-502	Transition 232-Z Bldg Incinerator to Slab-on-Grade	TPA	9/30/06		8/30/06	Ahead of Schedule
TRP-06-509	Disposition Miscellaneous PFP Nuclear Materials	PI	9/30/06		9/30/06	On Schedule
TRP-06-515	Complete 242-Z Initial Entry & Characterization	PI	9/30/06	10/5/05		Complete
TRP-06-519	Complete Conceptual Design for Compliant Storage Facility	PI	9/30/06		1/26/06	Ahead of Schedule
TRP-06-520	Submit Preliminary Safety Basis Documentation (PDSA) on ISSF	PI	9/30/06		5/15/06	TBD
TRP-06-521	Submit SEP Project NEPA Documentation	PI	9/30/06		9/30/06	On Schedule
TRP-06-522	Complete Design Sufficient to Initiate Construction MODS of ISSF	PI	9/30/06		9/30/06	On Schedule
TRP-06-524	Complete Cell Preparation Phase for Each of Five (5) Cells	PI	9/30/06		9/30/06	TBD
TRP-06-525	Complete Tank Removal Phase for Each of Five (5) Tanks	PI	9/30/06		9/30/06	TBD
TRP-06-526	Complete Formal Turnover of the Facility for Construction	PI	9/30/06		9/30/06	TBD
TRP-06-527	Complete Demolition of Five DBT-Related Ancillary Facilities	PI	9/30/06		9/30/06	On Schedule