

## SNF Stabilization and Disposition (RL-0012)

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*NCOs preparing a waste container used to support the debris removal at K West*

*NCOs closing full waste container at K West*



## Overview

This section addresses work in Project Baseline Summary (PBS) RL-0012, *Spent Nuclear Fuel Stabilization and Disposition*.

NOTE: Unless otherwise noted, all information contained herein is as of the end of November 2005.

## Notable Accomplishments

### SNF Stabilization and Disposition (PBS RL-0012)

**Sludge Retrieval and Transfer:** Progress continued ahead of schedule in the K East Basin. Rack removal was completed on December 21, 2005 (ahead of schedule) and debris unit removal is +89 units to plan (37 percent, 589 of 1594).

Installed and tested sludge container overflow collection pumping system (SCOOPS).

Seven IP-2 containers and two roll-off boxes were shipped to the Environmental Restoration Disposal Facility (ERDF).

K West Basin progress for debris and canister lid removal also continues ahead of schedule. KW debris removal is +119 units to plan (34 percent, 314 of 914), and KW canister lid removal is +120 units to plan (70 percent, 5361 of 7636).

**Sludge Treatment:** The Sludge Treatment Project IPAN 90 percent design comments returned to British Nuclear Group of America (BNGA) on December 1, 2005. Corrosion 60 percent design was delivered November 22, 2005.

## Issues

**Sludge Retrieval and Transfer:** The Hose-In-Hose (HIH) subproject has identified a number of material/fabrication and installation issues that have slowed installation. An engineering task team was established to review, identify, and provide a continual flow of approved design change notices to construction forces in order to minimize the impact to the progress of installation. These changes are in process and construction acceptance testing has commenced. The non-conformance report (NCR) process is remedying quality deficiencies. A delay of one month (as previously reported) is forecast to complete the HIH installation.

**Sludge Treatment Retrieval and Transfer Design:** Erosion test results on the HIH transfer pumps indicate that pump casing wear may necessitate use of an alternative pump type and/or prevent reuse of the HIH transfer stations. Based on this preliminary information, the design of the retrieval transfer system was placed on hold while alternatives are developed.

**100K Area Seismic Analysis:** An analysis is being performed for the 100K Area evaluating revised seismic criteria and potential changes required for existing facilities. Of particular concern are any effects on the design parameters of the sludge treatment system and facility modifications for the Cold Vacuum Drying Facility. Results of the analysis are expected in January 2006.

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

		Projected FY 2006 Funding	FY 2006 Fiscal Year Spend Forecast	Variance
RL-0012	SNF Stabilization & Disposition	\$ 122.9	\$ 122.9	\$ 0.0
<b>Total</b>		<b>\$ 122.9</b>	<b>\$ 122.9</b>	<b>\$ 0.0</b>

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

Schedule		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-0012	SNF Stabilization & Disposition	\$16.9	\$17.1	\$16.9	\$0.2	1.1%	\$0.2	1.1%	\$119.9
<b>Total</b>		<b>\$16.9</b>	<b>\$17.1</b>	<b>\$16.9</b>	<b>\$0.2</b>	<b>1.1%</b>	<b>\$0.2</b>	<b>1.1%</b>	<b>\$119.9</b>

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

**Performance (+\$0.2M/+1.1%):** The variance is due to:

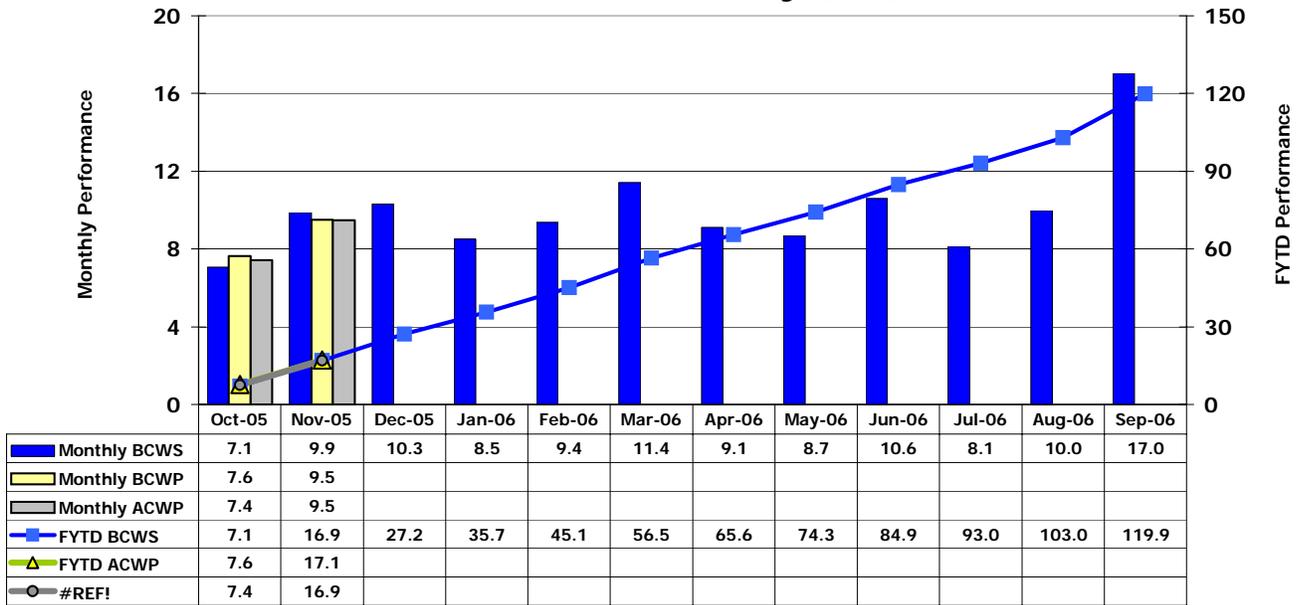
- K East and K West Rack and Debris removal ahead of plan (+\$0.4M).
- K East final pass engineering (-\$0.1M).
- HIH system engineering and construction activities (-\$0.2M).
- Legacy Fuel – Suspect fuel activities (-\$0.2M).
- D&D IXM procurement completed earlier than planned and OTRS activities ahead of schedule (+\$0.3M).

**Cost Performance (+\$0.2M/+1.1%):** The variance is due to:

- Labor overruns in S&C as a result of incorrect charging; revised charging authorization have been distributed (-\$0.4M).
- CSB charges to KBC; being corrected (-\$0.1M).
- Miscellaneous (-\$0.1M).
- K East and KW Rack and Debris removal costing less than plan (+\$0.9M).
- Sludge Treatment PNNL/Nuclear Safety charged elsewhere (being corrected) (+\$0.1M).
- Sludge Treatment BNGA accrual less than planned (no fee accrued) (+\$0.6M).
- HIH/KW Retrieval engineering and construction activities (-\$0.5M).
- Sludge Management – KE rack removal, C&R, and PNNL Nuclear Safety cost incorrectly charged to sludge management, will be corrected (-\$0.6M).
- Legacy Fuel (-\$0.1M).
- D&D resources utilized in other KBC subprojects (+\$0.3M).
- Closure Services (+\$0.1M).

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

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



## Milestone Achievement

Number	Milestone Title	Type (TPA/PI/DNFSB)	Due Date *	Actual Date	Forecast Date	Status / Comments
M-034-33B (S10-05-018)	Complete K East Sludge Containerization	TPA	03/01/05		09/19/06	Behind Schedule
RL-12-1.b (S10-99-082)	Transfer K East Sludge to K West Containers	PI	11/30/05		02/05/07	Behind Schedule
RL-12-1.bb (S10-99-963)	Transfer Found Fuel and Fuel Scrap from K East to K West	PI	11/30/05		11/09/06	Behind Schedule
M-034-34 (S10-05-010)	Complete Removal of K East Sludge	TPA	01/31/06		02/05/07	Behind Schedule
RL-12-1.ce (S10-99-978)	Complete K East Water Removal	PI	01/31/06		11/02/07	Behind Schedule
RL-12-1.ca (S10-99-967)	Encapsulate 3 K East Bays	PI	02/28/06		07/07/09	Behind Schedule
RL-12-1.cb (S10-99-968)	Remove K East Superstructure	PI	06/30/06		08/14/08	Behind Schedule
M-034-35 (S10-05-011)	Containerize K West Sludge	TPA	06/30/06		03/10/07	Behind Schedule
RL-12-1.cc (S10-99-969)	Complete First K East Basin Section Disposal	PI	07/31/06		12/12/08	Behind Schedule
RL-12-1.bd (S10-99-965)	Commencement of Floor and Canister Sludge Treatment	PI	07/31/06		05/27/08	Behind Schedule
RL-12-1.ci (S10-99-971)	Decon/Immobilize K West Basin Wall (7600 sq. ft.)	PI	08/31/06		12/28/09	Behind Schedule
RL-12-1.bc (S10-99-081)	Remove Found Fuel and Scrap	PI	09/30/06		06/06/08	Behind Schedule
RL-12-1.cf (S10-99-972)	Complete K East Basin Removal	PI	09/30/06		07/07/09	Behind Schedule
DNFSB 119E (S10-05-014)	Complete K East Sludge Consolidation	DNFSB	10/31/06		09/19/06	On Schedule
DNFSB 120E (S10-05-015)	Complete K East Basin Sludge Removal	DNFSB	03/21/07		02/05/07	On Schedule
DNFSB 122E	K East Final Pass Sludge Removed	DNFSB	05/31/07		03/26/07	On Schedule
DNFSB 119W (S10-05-016)	Complete K West Sludge Containerization	DNFSB	07/31/07		05/10/07	On Schedule

**NOTE:** DNFSB dates reflect IP update; TPA dates are contract dates; forecast dates are current working level schedules.