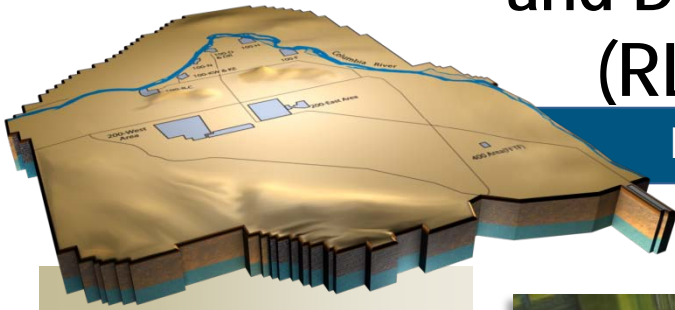
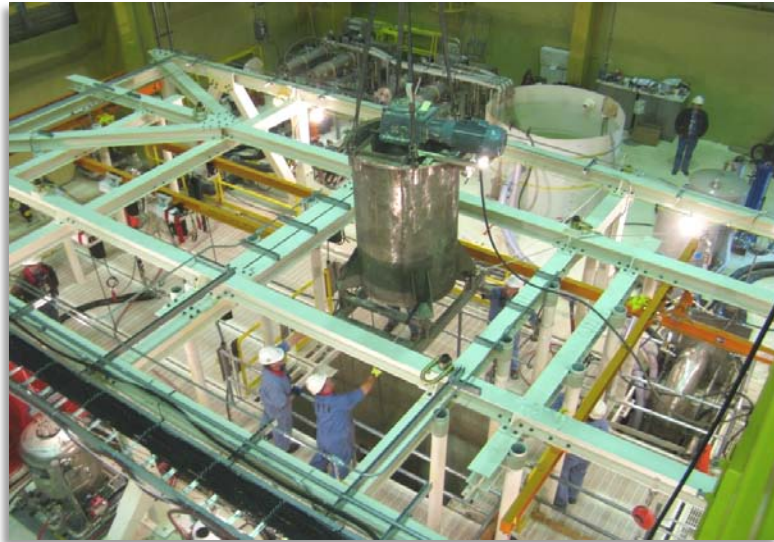


# Section B Spent Nuclear Fuel Stabilization and Disposition (RL-0012)

## Monthly Performance Report



K. L. Kehler  
Vice President and  
Project Manager for  
D&D Project



**Simulant  
Loading  
Conducted  
at MASF  
Test Facility**

**Multi-Canister  
Overpack (MCO)  
Scrap Basket  
Loaded with  
Scrap Fuel**



August 2011  
CHPRC-2011-08, Rev. 0  
Contract DE-AC06-08RL14788  
Deliverable C.3.1.3.1 - 1

## PROJECT SUMMARY

The knockout pot (KOP) pretreatment campaign was completed, and the KOP Subproject technical staff has been evaluating campaign data and preparing the report to document the results. The Pretreatment Campaign Report will be completed mid-September 2011 to meet Tri-Party Agreement (TPA) Milestone M-016-170, Complete KOP Material Pretreatment by September 30, 2011.

The KOP Subproject Team completed the KOP Processing System (KPS) Final Design Report and associated Design Requirements Compliance Matrix and initiated the Formal Design Review, which is the selected method for completing design verification of the KPS Final Design Report. The Formal Design Review is scheduled to be completed and the Final Design Report issued in October 2011.

KOP Subproject engineering and Quality Assurance (QA) personnel participated in supplier source inspection activities for the scrap basket copper inserts (in the United Kingdom) and the size separation screen (in New Jersey). The copper inserts and the separation screen are both safety significant and subject to OCRWM-related QA requirements. The procurement activities are on schedule.

KW Annex initial modifications continued, with deconstruction of a portion of the KW Annex starting early August utilizing “stick-by-stick disassembly” (due to safety reasons at this phase of deconstruction) of a portion of the Annex.

The Fuel-Special Packaging Authorization (F-SPA) Shipment Evaluation Checklist (SEC) and supporting documentation for shipments of KOP material in a multi-canister overpack (MCO) has been updated to incorporate RL comments. The updated SEC package was provided to RL.

Cold Vacuum Drying Facility (CVDF) operations continued to perform hands-on training for operations and exempt staff to support processing the scrap fuel MCO. Operations staff successfully completed the processing of a training MCO in Bay 5. In addition, final preparations, such as the development of work packages, continue to be made to replace the Bay 5 vacuum pump (VPS-P-2511), the general service helium safety relief valves, and the tempered water cooling pumps.

## EMS OBJECTIVES AND TARGET STATUS

Goal #	Goal	Target	Due Date	Status
1	Reduce use of copier paper by 3 percent at 825 Jadwin and MASF during FY 2011	Present goal to STP employees in a memo. Include 2010 usage and 2011 target for Room 301-C and 356 copy machines at 825 Jadwin and copy machine at MASF	12/31/10	Complete
		Issue quarterly status to all employees	03/31/11, 06/30/11	Complete Complete
		Issue year-end status to all employees	09/30/11	On Schedule
2	Recycle/reuse test simulant and basin mockup water at MASF	Outline plan for recycling/reuse of test simulant and Basin mockup water at MASF	12/31/10	Complete
		Issue quarterly status to all employees	03/31/11, 06/30/11	Complete Complete
		Assess effectiveness of reuse program and evaluate if continued reuse in FY 2012 is warranted	09/30/11	On Schedule

## TARGET ZERO PERFORMANCE

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	2	N/A
Total Recordable Injuries	0	3	N/A
First Aid Cases	1	12	<b>8/10</b> NCO experienced pain in right shoulder radiating down the forearm due to tightening the grip on a pole tool for use in the basin. <b>(22210)</b>
Near-Misses	0	0	N/A

## KEY ACCOMPLISHMENTS

As part of the Integrated (TRL-6) Test, testing of the final two (of a total of four) settler tank simulants was completed this month. Sludge treatment storage containers (STSCs) are loaded with each simulant, the simulants are retrieved, and the STSCs then checked for cleanliness. In this case, excellent cleanliness results were observed. In addition, initial review of the data from the post-test water runs indicate that there is no discernible difference in transfer and decant system flows and pressures after loading eight STSCs with simulant.

Revision 1 of the MCO Loading Plan for Found Fuel (OCRWM), KBC-48586, was approved and released. This revision was prepared to reflect combination of the found fuel payloads into a single MCO.







PRC-STP-00465, K Basin Sludge Treatment Project - Phase 2 Technology Evaluation and Alternatives Analysis, was released into IDMS on July 28 and formally transmitted to RL on August 1. This report documents the evaluation of technologies and processes for treating and packaging K Basin sludge and recommends further development of those that have a high certainty of successful deployment. This completes CHPRC scheduled Phase 2 activities for FY2011.

















## MAJOR ISSUES

Impacts from workforce restructuring have the potential to delay KOP Operations. Impacts from “bump and roll” will not be known until layoffs are realized in September.

## 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	
STP-030: 100K KOP system operations	Refurbish IWTS, FRS, CLS to minimize operational downtime			Baseline includes refurbishment.
STP-007: Competing K Basin Priorities	Integrated, detailed working schedules/plan-of-the-week meetings			MCO Dry Runs completed, Engineered Container Sampling campaign have all completed. KOP Pretreatment operations initial processing completed.
KBC-010: Unexpected TRU Debris or Other Waste	Develop characterization & blending/packaging strategy; establish alternate waste disposition pathways			No issues at this time.
KBC-011: DSA/FHA Limits Impact Waste Staging	Modify DSA/FHA to increase combustible loadings			Work in this area is proceeding without impact.
KBC-018: Discovery of Additional Sludge or SNF	Ensure SNF handling capabilities and WCH agreements are in-place			WCH has delayed shipments, and has requested extension of the window to make additional shipments.
STP-039: KOP Separations Process Qualification	Test the mechanical separations process in a relevant environment at MASF			Pretreatment test equipment modified and shipped to 100K for staging
STP-075A: ECRTS Technology Maturation Testing	Continue technology testing at MASF to demonstrate TRL-6 maturity by March 2012 TRA.			Full Integrated Testing (TRL-6) is in-process with no known issues.
STP-082: Changing in Classification of Annex from PC-2	Continue meetings with RL and stakeholders on hazards analysis			It has been determined that PC-2 is the correct classification.

## PROJECT BASELINE PERFORMANCE

Current Month  
(\$M)

RL-0012 Spent Nuclear Fuel Stabilization and Disposition	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
<b>Base</b>	2.3	6.6	6.2	4.2	178	0.4	6.4

Numbers are rounded to the nearest \$0.1M

### CM Schedule Performance (+\$4.2M/178%)

BCWS includes an adjustment in the current month due to implementation of BCR-PRC-11-039R0, FY2012 Annual PMB Update, which includes carryover scope from FY2011 to FY2012 for Engineered Container Retrieval and Transport System (ECRTS) design and technology readiness assessment and for KOP procurement and installation.

### CM Cost Performance (+\$0.4/6.4%)

The combined STP and 100K current month cost variance is within thresholds.

## Contract-to-Date (\$M)

RL-0012 Spent Nuclear Fuel Stabilization and Disposition	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)	Estimate at Completion (EAC)	Variance at Completion (VAC)
<b>Base</b>	240.2	239.7	242.5	(0.5)	-0.2	(2.8)	-1.2	605.5	605.1	0.4

Numbers are rounded to the nearest \$0.1M

### CTD Schedule Performance (-\$0.5M/-0.2%)

The combined 100K and STP variance is within reporting thresholds.

### CTD Cost Performance (-\$2.8M/-1.2%)

The combined 100K and STP variance is within reporting thresholds.

**Contract Performance Report Formats are provided in Appendix A.**

### Estimate at Completion (EAC)

The change in EAC from July to August is due to application of G&A and Direct Distributables during implementation of BCR-PRC-11-039R0.

## FY2011 FUNDS VS. SPEND FORECAST (\$M)

RL-0012 Spent Nuclear Fuel Stabilization and Disposition	FY2011		Spend Variance
	Projected Funding	Spending Forecast	
<b>Base</b>	80.7	79.1	1.6

Numbers are rounded to the nearest \$0.1M.

### Funds/Variance Analysis

Funding includes FY2010 carryover and FY2011 new Budget Authority.

### Critical Path Schedule

Critical Path Analysis can be provided upon request.

### Baseline Change Requests

BCR-PRC-11-039R0, FY2012 Annual PMB Update was implemented in August.

## MILESTONE STATUS

TPA milestones represent significant events in project execution. DOE Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The PRC FY2012 Annual PMB Update, implemented in August 2011, and subsequent approved BCRs define CHPRC planning with respect to TPA milestones. The following table is a one year look ahead of key milestones.

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comment
DNFSB 120W	Complete Sludge Treatment	DNFSB	11/30/09			A pending Implementation Plan update will address this milestone.
M-016-170	Complete Knockout Pot Material Pre-treatment	TPA	09/30/11			On Schedule.
M-016-171	Complete K Basin Sludge Treatment & Packaging Tech Eval Report	TPA	3/31/12			On Schedule.

## SELF-PERFORMED WORK

The Section H.20 clause entitled, Self-Performed Work, is addressed in the Monthly Report Overview.

## GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.