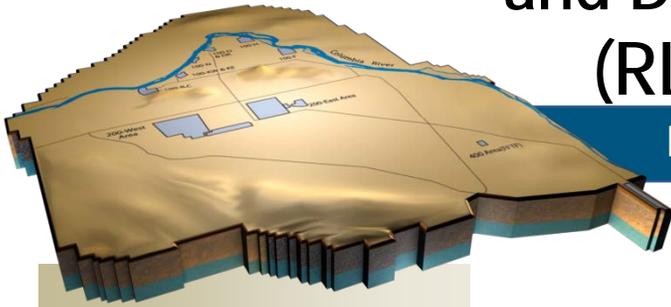


Section B Spent Nuclear Fuel Stabilization and Disposition (RL-0012)

Monthly Performance Report



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Deliverable C.3.1.3.1 - 1

**Molten copper being
poured to form a Scrap
Basket Copper Insert**



**Operations training
underway at MASF
on Knockout Pot
Processing System
equipment**

**K West Basin Annex
modifications and
demolition**



PROJECT SUMMARY

The 100K Operations staff completed the initial processing of all knockout pot (KOP) material through the pretreatment processes. This included the size reduction portion of the process and the removal of aluminum wire from the material retained in the screened canister during the size reduction process. The technical staff is analyzing the results, working with the operations staff to further optimize the condition of the remaining material before declaring pretreatment complete, which is expected by the end of the calendar month.

100K Operations personnel continued training activities at the Maintenance and Storage Facility (MASF) on the KOP Processing System (KPS) equipment in preparation for the 2012 KPS campaign. Operations personnel continue to provide feedback and have been instrumental in optimizing operations to be conducted in the basin. Their feedback is critical to maintaining ALARA goals ensuring equipment and tools are ergonomically sound and available to support completion of TPA Milestone M-016-172 for removal of KOP material from the 105KW Basin by September, 2012.

An internal review of the KPS Final Design Report was completed. Review team comments will be reviewed and incorporated by the end of the calendar month, with the Formal Design Review scheduled to begin in early August.

The Integrated (TRL-6) Test continues. K East simulant (the second of three simulants planned) was completed and settler tank simulant (the third simulant planned) was initiated. The first sludge transfer storage cask (STSC) of settler tank simulant was successfully retrieved. In addition, overflow recovery testing was successfully completed.

The Engineered Container Retrieval and Transport System (ECRTS) Preliminary Design Human Factors Review was performed this month. This facilitated review included STP ECRTS project personnel and personnel from K West Operations, Radiation Protection, Industrial Safety, and Engineering. The results of this human factors review will be documented in the ECRTS Preliminary Design Report and will be reflected in the ECRTS final design.

RL approved the reauthorization of the One Time Request for Shipment (OTRS) utilizing the multi-canister overpack (MCO) cask. The OTRS approval letter also authorizes combining the two planned payloads into a single MCO, provided that STP is able to demonstrate the combined payloads can be shown to remain sub-critical. Two adequacy of Criticality Safety Evaluation Report (CSER) Forms (ACF) were prepared to evaluate the criticality safety of the combined payloads (providing a basis to allow J and/or C metal to be combined in the same scrap basket with highly-enriched SPR fuel). These were approved and released.

The Draft K East (F-SPA) Checklist was revised to reflect the new fissile gram equivalent (FGE) concentration of 172 derived by using the new F-SPA methodology provided by RL. The K East sludge payload is now under the F-SPA FGE limit of 1200. The revised draft checklist was released for an internal CHPRC review.

Cold Vacuum Drying Facility (CVDF) Operations continued to perform Operator training on the MCO Canister System (MCS) simulator in order to support processing the scrap fuel MCO. In addition, CVDF Operations continued working routine maintenance and repair packages on processing equipment to maintain the facility in a ready state for processing the scrap fuel MCO.

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	3	N/A
Total Recordable Injuries	0	4	N/A
First Aid Cases	1	12	7/20/11 - Employee experienced light-headedness during an annual physical, was administered oxygen by the medical staff and returned to work. (22147)
Near-Misses	0	0	N/A

KEY ACCOMPLISHMENTS

The CHPRC Annual Office of Civilian Radioactive Waste Management (OCRWM) Audit was completed this month, with the KOP Subproject being the major focus. Strengths were noted in the preparations for using MCO components in storage (Reference Management Assessment of MCO Components Material Storage) and the knowledge of the Buyers Technical Representative for the MCO Copper Insert Contract. Overall the subproject did well and is in good shape for the DOE-HQ OCRWM Audit planned for September 2011.

The Phase 2 Technology Evaluation and Alternatives Analysis Recommendation Report (PRC-STP-00465) was approved and in the release process. The formal transmittal of this document to RL is being routed for approval. This represents the completion of a 22-month effort to identify, demonstrate feasibility, and evaluate technologies that could be used to treat and package the K Basin sludge material for disposal as RH-TRU. Issuance of this report (expected by the end of the calendar month) will fulfill the requirements for PI-12-02.2R.4, "Submittal of Phase 2 Technology Recommendation report to RL".

MAJOR ISSUES

None identified.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk

● Working - No Concerns ↑ Increased Confidence
● Working - Concern ↔ No Change
● Working - Critical ↓ 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 (%)
Base	5.9	6.0	5.6	0.0	0.5	0.4	6.3

Numbers are rounded to the nearest \$0.1M

CM Schedule Performance (+\$0.0M/0.5%)

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

CM Cost Performance (+\$0.4/6.3%)

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)
Base	237.8	233.1	236.4	(4.7)	-1.99	(3.3)	-1.4	590.4	590.1588.8	1.6

Numbers are rounded to the nearest \$0.1M

CTD Schedule Performance (-\$4.7M/-1.99%)

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

CTD Cost Performance (-\$3.3M/-1.4%)

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 June to July is within reporting thresholds.

FY2011 FUNDS VS. SPEND FORECAST

(\$M)

RL-0012 Spent Nuclear Fuel Stabilization and Disposition	FY2011		Spend Variance
	Projected Funding	Spending Forecast	
Base	80.7	79.0	1.7

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

No BCRs implemented in July.

MILESTONE STATUS

Tri-Party Agreement 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 Baseline Revision 2 Update, implemented in September 2010, and subsequent approved BCRs define CHPRC planning with respect to Tri-Party Agreement (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.