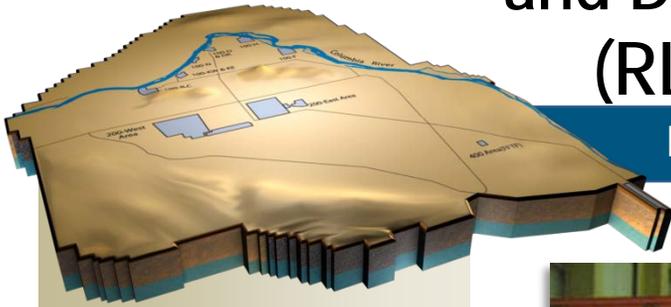


Section B Spent Nuclear Fuel Stabilization and Disposition (RL-0012)

Monthly Performance Report



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**K-Basin Mockup
at MASF**



100KW Annex Demolition Progress

September 2011
CHPRC-2011-09, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

The Knockout Pot (KOP) Processing System (KPS) Formal Design Review completed earlier this month with the receipt of approximately 190 Review Comment Record (RCR) form comments, most of which have been dispositioned. Following disposition of the remaining comments, the Final Design Report will be released (expected in October).

The Engineered Container Retrieval and Transport System (ECRTS) Integrated (TRL-6) Test was completed and test inspections begun. Test data has been assembled for the associated test report, expected in mid-October.

The STP Joint Test Group (JTG) approved PRC-STP-00500, STP ECRTS Analysis of Simulant Properties for TRL-6 Testing. This report compares the important physical and rheological properties of the TRL-6 simulants to the properties of the actual K Basin sludge in order to demonstrate that the simulants bound the full range of actual sludge properties.

K West Annex initial modification plan for removal of the annex crane has been revised to reflect demolishing the crane within the building instead of lifting the crane out of the building through the roof. Construction activities to remove the crane will start in early October.

Final design of the K West Annex continued, with Areva Federal Services (AFS), the design subcontractor, modifying their schedule to reflect a two-week delay associated with moving the modified Annex 30 feet to the north.

Cold Vacuum Drying Facility operations performed simulator training and systems/bay qualifications in order to support processing the scrap fuel multi-canister overpacks (MCOs) in FY2012.

Representatives from the Carlsbad Field Office, WIPP, RL, and CHPRC participated in a workshop in Richland to discuss key performance and design assumptions and requirements for the future Phase 2 treatment and packaging facility. All sludge streams were discussed though the focus was on treatment and packaging of the K East sludge. Consensus was reached for a number of key technical elements associated with treatment, packaging, and transportation of K East sludge. All parties agreed to an ongoing dialog to firm up the RL planning basis for treatment and packaging of K Basin sludge material. The results of the workshop were briefed to Joe Franco of RL and DOE consultants Margaret Chu and Milt Levensen.

AFS issued the final thermal and gas analysis for the transport of settler sludge within the sludge transport system (STS). AFS evaluated the transport of the settler sludge in an STSC with and without the Settler core. The evaluation assumed a total payload of 1.6 m³ in an STSC without the core and 1.3 m³ in an STSC with the core. The evaluation assumed that the STS/STSC will be received and vented at T-Plant within 60 hours of STS/STSC closure at K Basins. Under these conditions the evaluation found that the transport of the STS/STSC with the core remained thermally stable. The transport of the STS/STSC without the core required the sludge payload to be loaded in a minimum of two layers in order to remain thermally stable.

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	Complete
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	Complete

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	0	11	N/A
Near-Misses	0	0	N/A

KEY ACCOMPLISHMENTS

PRC-STP-00522, *STP KOP Disposition Subproject Completion of Pretreatment Report*, was approved and provided to RL as formal supporting documentation for closure of TPA Milestone M016-170, *Complete KOP Material Pre-treatment*. This STP accomplishment establishes the necessary initial conditions for executing the KPS operating campaign scheduled for next spring.

PNNL-20650, *Characterization Data Package for Containerized Sludge Samples Collected from Engineered Container SCS-CON-210*, was completed by subcontractor PNNL. The full report and underpinning data package provide the results from the characterization activities in accordance with the Quality Assurance Project Plan/Sampling and Analysis Plan.

HNF-SD-SNF-TI-015, Revision 15, *Spent Nuclear Fuel Project Technical Databook, Volume 2, Sludge*, was approved and released. This revision of the databook replaces older values on sludge currently held in Engineered Containers SCS-CON-240, -250 and -260 (K East sludge) with best available parameters obtained by direct sampling and analysis of sludge material in these containers.

MAJOR ISSUES

Impacts from “bump and roll” are being analyzed and quantified.

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 the PC-2 is 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	10.6	9.5	7.3	-1.1	-10.5	2.2	22.8

Numbers are rounded to the nearest \$0.1M

CM Schedule Performance (-\$1.1M/-10.5%)

Impacts from workforce restructuring causing “bump and roll” effect amongst key personnel causing retraining of replacements is resulting in impacts to the loading and processing of MCOs. The CM SV was also impacted by settler tube sampling and analysis and updating of KBC databook performed ahead of schedule with BCWS being realized in the current period.

CM Cost Performance (+\$2.2M/22.8%)

G&A distribution and Direct Distributable accounts were below budget for the period, additionally resource costs for support to MCO packaging were decreased as work was slowed due to workforce restructuring.

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	250.8	249.2	249.8	-1.6	-0.6	-0.7	-0.3	605.9	605.1	0.9

Numbers are rounded to the nearest \$0.1M

CTD Schedule Performance (-\$1.6M/-0.6%)

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

CTD Cost Performance (-\$0.7M/-0.3%)

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

Contract Performance Report Formats are provided in Appendix A.

Estimate at Completion (EAC)

The current EAC is slightly lower than the projects BAC.

FY2011 FUNDS VS. SPEND FORECAST

(\$M)

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

No BCRs implemented in the period.

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 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			Complete 09/23/2011
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.