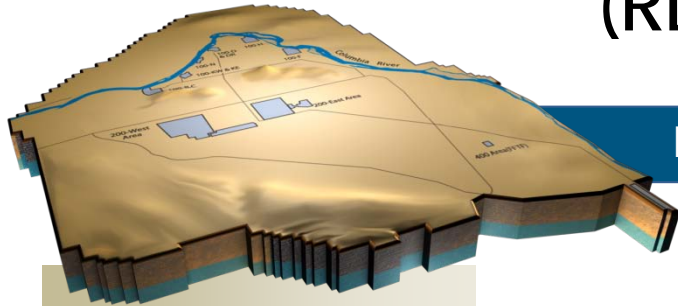


Section B

Spent Nuclear Fuel Stabilization and Disposition (RL-0012)



Monthly Performance Report

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105KW Engineered Container-210 Sampling Campaign



**Engineered Container Retrieval and Transportation System
Sludge Retrieval Testing**

November 2010
DOE/RL-2010-126-11, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

Sludge Retrieval Testing (STP) and 100K Operations personnel completed the sampling and shipments of the Settler Tank sludge material to Pacific Northwest National Laboratory (PNNL) for characterization and analysis. The campaign included 10 shipments of 17 sample bottles, and transferred 2700 milliliters of material. The dose rates averaged 3R/hr with a high of 13R/hr. This campaign was the first CHPRC shipment that used the Fuel-Special Packaging Authorization (F-SPA) as the transportation authorization basis.

Following completion of the Settler Tank sampling, project personnel and construction forces completed the installation of the sampling system on Engineered Container (EC)- 210 (final container with K West floor and pit sludge). Sampling operations were initiated and the first shipment of EC-210 sludge samples was transferred to PNNL.

The CHPRC Project Review Board (PRB) conducted a critical review of the Knockout Pot (KOP) Disposition Subproject to assess its readiness to proceed to the Final Design Phase. The PRB granted approval to the subproject to proceed with KOP Processing System final design. In addition, KOP project and 100K Operations personnel made a presentation to the Joint Evaluation Team (JET) to recommend the level of readiness review that should be conducted prior to initiating pretreatment operations. The JET concurred with the score sheet prepared by 100K Operations Management and authorized applying a Readiness Assessment Level 3 Review. In addition, AREVA Federal Services finalized the Multi-Canister Overpack (MCO) shielding analysis for KOP material and the MCO thermal and gas analysis for KOP material evaluations. Both evaluations concluded that the transport of the KOP material in the MCO will be well within the on-site transportation restrictions. These evaluations were developed to support the F-SPA checklist for the MCO/KOP transport. Finally, the first draft of the "KOP/MCO" F-SPA Checklist was completed and routed for internal review. This checklist, when approved by RL, will authorize packaging and transportation of the KOP material in the MCO cask. Utilization of the F-SPA authorization approach eliminates the need to revise the MCO Safety Analysis Report for Packaging.

The Engineered Container Retrieval Transportation System subproject continued testing the XAGO retrieval tool using settler tank sludge simulant. Sixteen retrieval runs were successfully made with concentration levels being steady. This test (which loaded the Sludge Transfer Storage Cask [STSC] with Settler Tank sludge) allowed the initiation of the overflow recovery test. After an initial problem (pinhole leak in the pump diaphragm) was resolved, the overflow recovery test was successful on this simulant. The K West simulant that was not able to be tested last month, will be reloaded in the STSC and the overflow tool tested on that simulant. In addition to these two tests, the integrated decant test was performed, which successfully filtered simulated unsettled solids from the STSC. Decant testing will continue with each simulant retrieved and loaded into the STSC.

The Phase 2 Technology Evaluation subcontracts have mostly completed the testing phase with the exception of AREVA (with PNNL conducting the test). Ceradyne is in the process of submitting the final reports on the immobilization with Borobond and the size-reduction/grinding test; Energy Solutions submitting final test results using pH Carbonate/Peroxide oxidation; and Impact Services submitting the test report on the full scale Mixer/Dryer test. KURION (Inductively Heated In-Container Vitrification) continues to work (at their own expense) on testing to demonstrate their technology application to Hanford Low Activity Waste Treatment, and will update the final test report for this project. AREVA/PNNL will continue testing the warm water oxidation process for the next few weeks and then will submit the final test report.

EMS OBJECTIVES AND TARGET STATUS

Goal#	Goal	Target	Due Date	Status
1	Reduce use of copier paper by 3% at 825 Jadwin and Maintenance and Storage Facility (MASF) during FY2011	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 S/N31012668 at MASF	12/31/10	On Schedule
		Issue quarterly status to all employees	03/31/11, 06/30/11	On Schedule
		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	On Schedule
		Issue quarterly status to all employees	03/31/11, 06/30/11	On Schedule
		Assess effectiveness of reuse program and evaluate if continued reuse in FY2012 is warranted.	09/30/11	On Schedule

TARGET ZERO PERFORMANCE

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	1	N/A
Total Recordable Injuries	0	2	N/A
First Aid Cases	1	24	11/05 During the night, lighting ballast in an office space at MASF Building 437 appeared to have failed and had produced a strong odor. At approximately 10:00 am, four employees reported the odor. The four employees were taken to AdvanceMed Hanford for evaluation and returned to work with no restrictions. Incident resulted in one first aid and three reports only. (21461)
Near-Misses	0	0	N/A

KEY ACCOMPLISHMENTS

Sludge Treatment Project (STP)

- The MCO Basket Insert drawing package and procurement specification were issued and the Statement of Work for the inserts was approved
- The SOW for the Basket Inserts was issued, with submittal deadline for proposals on December 10, 2010
- MASF personnel fabricated the mockup of the East Secondary Process Table for KOP Pretreatment testing
- The KOP “staging bullpen” installation at MASF was completed, and the remaining superstructure to simulate the K West Basin work area, including a Gantry Crane, was ordered. Installation of the mockup is scheduled to complete in December to support KOP pretreatment testing and operator training beginning in January 2011.
- HiLine completed fabrication and delivery of an MCO basket inspection (go/no-go) gauge, to support conduct of an MCO materials assessment at the central warehouse facility. The gauge will provide critical feedback on the acceptability of the scrap basket sextant configuration that is relied upon in the KOP Thermal Analysis.

MAJOR ISSUES

None identified.

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, Settler Tank Sampling campaign (now complete) and the installation of the sampling system on EC-210 (now complete) show improved communications are working.
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			With completion of KOP / Canister washing with no surprises, confidence level increased for this risk area.
STP-039: KOP Separations Process Qualification	Test the mechanical separations process in a relevant environment at MASF			Testing being conducted at MASF has identified changes required to optimize the process.
STP-075A: ECRTS Technology Maturation Testing	Continue technology testing at MASF to demonstrate TRL-6 maturity by March 2012 TRA.			Component level testing is being conducted. Full Integrated Testing will commence in December 2010.

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	6.4	6.3	6.1	(0.0)	-0.0	0.3	4.2

CM Schedule Performance (-\$0.0M/-0.0%)

The negative schedule variance is within reporting thresholds.

CM Cost Performance (+\$0.3M/+4.2%)

The positive variance is within reporting 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	182.3	178.8	184.4	(3.5)	-1.9	(5.6)	-3.1	580.1	592.6	(12.4)

Numbers are rounded to the nearest \$0.1M.

CTD Schedule Performance (-\$3.5M/-1.9%)

The combined 100K and STP variances are within reporting thresholds.

CTD Cost Performance (-\$5.6M/-3.1%)

The combined 100K and STP variances are within reporting thresholds.

Contract Performance Report Formats are provided in Appendix A.

FY2011 FUNDS VS. SPEND FORECAST

(\$M)

RL-0012 Spent Nuclear Fuel Stabilization and Disposition	FY2011		Variance
	Projected Funding	Spending Forecast	
Base	83.8	83.9	(0.2)

Numbers are rounded to the nearest \$0.1M.

Funds/Variance Analysis

Funding includes FY2010 carryover and FY2011 new Budget Authority. The funding variance represents an increase in Project Services Support and PSD R&RP allocations to this PBS.

Critical Path Schedule

Critical Path Analysis can be provided upon request.

Estimate at Completion (EAC)

The BAC and EAC now include FY2009 through FY2018, the PRC contract period.

Baseline Change Requests

BCRA-PRC-11-008R0, General and Administrative Changes for November 2010

MILESTONE STATUS

Tri-Party Agreement (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 Baseline Revision 2 Update, implemented in September 2010, defines 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			Letter dated 30 June 2010, from Ms Triay to DNFSB, notifying the board of a pending Implementation Plan update that will address this missed milestone.

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.