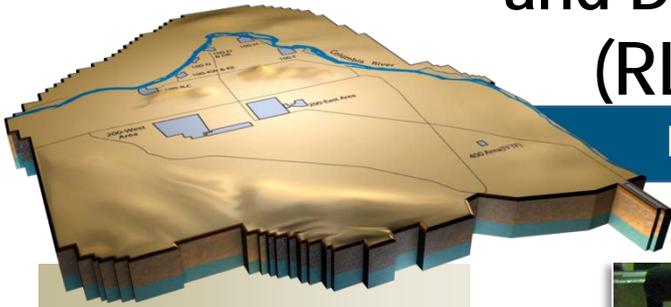


Section B Spent Nuclear Fuel Stabilization and Disposition (RL-0012)

Monthly Performance Report



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**Operator Training on Knockout Pot Process System
Equipment at the Maintenance and Storage Facility**



Knockout Pot Process System Strainer Basket Test Run

June 2011
CHPRC-2011-06, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

The 100K Operations staff completed the density separation processing for the contents of the low, medium, and high-density fuel canisters of knockout pot (KOP) (proper) material. The next step in the Pretreatment process is the size reduction activities using the Primary Cleaning Machine, which will be followed by aluminum wire removal activities. The current schedule for completing KOP Pretreatment is mid-July.

A KOP contract was placed with HiLine Engineering and Fabrication to fabricate safety significant Verification Containers and Volume Measurement Tools. The delivery of all hardware is scheduled to occur by mid October, 2011.

100K Operations personnel are being trained and are validating operating procedures at MASF to operate the KOP Processing System (KPS) equipment for the KPS campaign scheduled in 2012 at 105KW Basin. Operations personnel have provided feedback and have been instrumental in optimizing operations to be conducted in the basin, which is critical to maintaining ALARA goals and achieving the TPA Milestone of September, 2012.

The Integrated (TRL-6) Test continues, with K East simulant (the second of three simulants planned) testing in progress with the filling of the second K East simulant Sludge Transfer Storage Cask (STSC) and the completion of K East simulant retrieval testing.

PNNL completed settling and flocculant testing with sludge samples from SCS-CON-230 (Settler sludge) and delivered the final report/data package, PNNL-20470, "*Characterization Data Package for Containerized Sludge Samples Collected from Engineered Container SCS-CON-230,*" along with the underpinning analytical reports.

CHPRC completed its evaluation of the acceptability of receiving the last shipment of two fuel pieces from WCH. These fuel pieces were found in silos that are posted as a beryllium control area, and were posted as potential beryllium contaminated material. WCH has characterized the fuel and also performed analyses that concluded the beryllium present with the fuel pieces was below the Hanford site release criteria. CHPRC expects to receive the fuel pieces from WCH in July.

CHPRC and RL staff met to initiate preparations for a workshop with WIPP tentatively scheduled for July. A table of issues with corresponding needs has been prepared and will be shared with WIPP prior to the meeting. The outcome from these meetings is expected to influence design requirements for the Phase 2 "treatment and packaging" of the Engineered Container and Settler Tank sludge streams.

A summary analysis of the identified Hanford Site RH-TRU streams was completed, and the potential for shared functions between the K Basin Phase 2 treatment technology and other RH-TRU streams was evaluated. A qualified Category 2 structure that contains a robust nuclear ventilation system and equipment for packaging and certification functions appears to be a common need. This analysis will be incorporated into the Alternatives Analysis to support the evaluation of Criteria 7 - Potential for integration with other site RH-TRU treatment and packaging.

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	5	N/A
Total Recordable Injuries	0	6	N/A
First Aid Cases	4	14	<p>06/01 105KW NCO 105KW was operating an on/off switch when worker turned switch off and received a shock. 22002</p> <p>06/06 100K FWS Area was stung or bit by a bug on the left wrist. 22010</p> <p>06/16 100K Electrician twisted right wrist while opening a door to enter a building. The worker was carrying several things in hands while opening door. 22047</p> <p>06/17 100K NCO received a splinter under finger nail when reaching for a PAPR hood. 22049</p>
Near-Misses	0	0	N/A

KEY ACCOMPLISHMENTS

- The KPS Qualification Test was completed and, following subsequent completion of data analysis, the KPS Qualification Test Report was finished and presented to the STP Joint Test Group (JTG) June 23rd. The JTG members will reconvene next week to provide review comments and formal approval of the final report. Results of the qualification testing are being incorporated into the KPS Final Design Report.
- A draft Adequacy of Criticality Safety Evaluation Report (CSER) Form (ACF) was prepared by CHPRC Criticality Safety analyzing the criticality safety of spent nuclear fuel inside the multi-canister overpack (MCO), including onsite transportation, handling at the K West Basin, processing in the Cold Vacuum Drying Facility, and storage at the Canister Storage Building. The ACF evaluated CSER-005 under the condition of all the remaining fuel and scrap, including the WCH found fuel, loaded into a single MCO. This ACF concluded that there are no changes to the limits and controls of the CSER resulting from the condition evaluated.
- The Project finalized and submitted the report of the Phase 2 Decision Support Board Workshop held May 9-12 to RL. A draft Volume 1 (summary analysis and recommendations) of the Alternatives Analysis was completed and the review is continuing with both the Lucas technical team and within the STP project. A complete Volume 2 (detailed supporting data) draft is being finalized in parallel with the Volume 1 review. A formal review will be conducted when both Volumes are complete. The Project is currently projecting delivery of the recommendation package around July 15th.
- PNNL delivered the final test reports for both the Nitrate Inhibition and the prototypical Warm Water Oxidation testing, which was conducted to support the Phase 2 alternatives analysis. These document completions represent the final Phase 2 testing reports.

MAJOR ISSUES

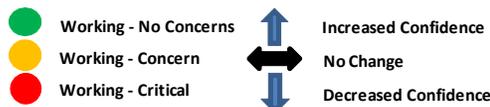
None identified.

RISK MANAGEMENT STATUS

Unassigned Risk

Risk Passed

New Risk



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. The next STP activity in KW is Pretreatment operations in May, June and early July.
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 PCS-2	Continue meetings with RL and stakeholders on hazards analysis	●	↔	Initial reviews indicate that the PCS-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	11.6	11.6	6.9	0.0	0.2	4.7	40.9

Numbers are rounded to the nearest \$0.1M

CM Schedule Performance (\$0.0M/0.2%)

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

CM Cost Performance (\$4.7/40.9%)

The primary driver to the positive cost performance this month is the implementation of BCR-012-11-004R0 – Sludge Treatment Project Annex Design Estimate Impact. This BCR reflected the change of the new Annex facility that is being designed. This completes the action item from previous month's reports. The point adjustment in this month reflects the Contract-To-Date performance of the subcontractor. In addition, 100K Operations account had a positive cost variance, due to continuing work on STP Pretreatment activities (costed to 12.16.04) and on-going work to declare the basin "fuel free" (costed to PBS RL-41).

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	231.9	227.1	230.8	(4.8)	-2.1	(3.6)	-1.6	590.4	590.1	0.3

Numbers are rounded to the nearest \$0.1M

CTD Schedule Performance (-\$4.8M/-2.1%)

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

CTD Cost Performance (-\$3.6M/-1.6%)

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 May to June 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	80.3	0.4

Numbers are rounded to the nearest \$0.1M.

Funds/Variance Analysis

Funding includes FY2010 carryover and FY2011 new Budget Authority. Spend Forecast reflect current trends and analysis after implementation of the BCRs referenced below.

Critical Path Schedule

Critical Path Analysis can be provided upon request.

Baseline Change Requests

BCR-012-11-003R0 – Sludge Treatment Project Annex Design Estimate Impact

BCR-012-11-005R0 – Fuel MCO Processing and Min Safe Additions

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			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.
M-016- 170	Complete Knockout Pot Material Pre-treatment	TPA	09/30/11			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.