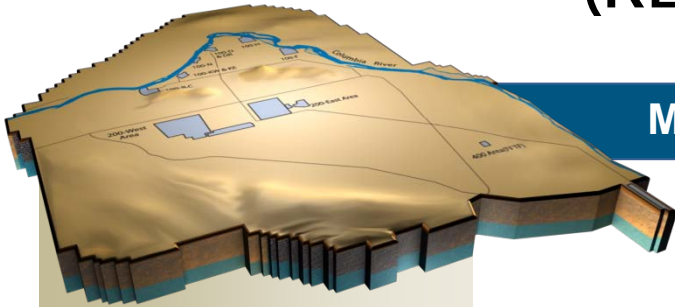


Section B

Spent Nuclear Fuel Stabilization and Disposition (RL-0012)

Monthly Performance Report



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Deliverable C.3.1.3.1 - 1



Sludge Filtration Test Setup



**Sludge Transfer Storage
Container Hose Connection
Test Setup**

PROJECT SUMMARY

Sludge Treatment Project (STP) received the Technology Readiness Assessment (TRA) report on the Engineered Container Sludge Disposition sub-project, which included the acknowledgement that the STP Critical Technology Elements (CTEs) which were reviewed, and evaluated to be at a Technology Readiness Level 4 (TRL - 4). This is one level higher than the CHPRC self evaluation.

STP has submitted to RL the Safety Design Strategy (SDS) document for approval of the Engineered Container Sludge Disposition sub-project. This document is required by DOE Order 1189 (Safety in Design) and establishes the deliverables and methods for safety analysis in support of STP.

STP successfully completed the Construction Acceptance Test (CAT) activities associated with the Settler Tank Retrieval systems. Following readiness reviews and approvals, the project will start the retrieval of sludge from the ten settler tanks and deposit the sludge in Engineered Container (EC) SCS-230 for eventual sampling.

STP completed the technical evaluation on the four proposals for the Phase II Support Contract. A recommendation of award was sent to CHPRC procurement for their action. In addition, five technology vendors responded to the Request for Information (RFI) for Phase II Technology Evaluation and Alternatives Selection. The proposals represent five different approaches to sludge oxidation and stabilization. STP plans to select up to five different technology approaches for further process demonstration with sludge simulants in the next phase of this process.

TARGET ZERO PERFORMANCE

	CM Quantity	FYTD Quantity	Comment
Days Away, Restricted or Transferred	0	0	N/A
Total Recordable Injuries	1	1	11/14/09 - An employee was exiting a building when the door struck the right foot while closing causing an injury to the big toe on the foot. The employee then went to a local private clinic where the injured digit was examined and bandaged. An antibiotic was prescribed. (20552)
First Aid Cases	5	7	<p>11/02/09 - A teamster pinched the middle finger on right hand while moving flanges to a pallet. This resulted in a slight contusion to the finger. The employee and supervisor concluded that the injury could be self-treated. (20538)</p> <p>11/04/09 - An electrician incurred a bee sting on the right forearm. The supervisor and employee agreed the sting could be self treated. (20547)</p> <p>11/05/09 - Driving fork lift and felt something in eye. (20541)</p> <p>11/18/09 - A pipe fitter received a scratch on left hand. Employee and supervision elected to self treat. (20578)</p> <p>11/23/09 - An employee noted what appeared to be an insect bite. It was not clear if it was actually an insect bite. The employee notified the project Safety Engineer and both agreed to self treat. (20593)</p>
Near- Misses	0	0	N/A

KEY ACCOMPLISHMENTS

12.16 Sludge Treatment Project (STP)







- The project issued:
 - KOP Disposition Project Conceptual Design Hazards Analysis (PRC-STP-00098).
 - Updated Hazards Analysis for the K West Basin container sludge sampling (HNF-36473 R2). This included sampling of settler tank sludge and shipping samples in a Type A container in accordance with the Special Package Authorization.
- Completed the draft final Knockout Pot (KOP) In-Basin Inspection Report covering the results of all four inspection phases. The report is undergoing internal review and is scheduled for release by mid-December. The information and observations obtained from the in-basin inspections supports the technical viability of disposing KOP material in Multi-Canister Overpacks (MCOs) for interim storage at the Canister Storage Building (CSB).
- The KOP Disposition project, with support from 100K Operations, completed the additional density optimization testing in 100K. This final data collection effort will be incorporated into the final Phase 4 In-Basin Inspection Report to be issued in December.



















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	
KBC-022: Drawing Unavailability/Errors Cause Work Stoppage During Utility Isolation	Reroute utilities to prevent this scenario. Reconfiguration work planned during ARRA period.			No new issues at this time.
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			Close interactions between the projects is occurring, schedules are reviewed and evaluated, against established priorities.
KBC-002: Subcontract change orders/claims exceed planned allowances	Risk accepted without mitigation			No issues at this time.
KBC-009: Jurisdictional Issues (Davis-Bacon) Impact Productivity	Risk handling options being evaluated			No impacts at this time.
KBC-010: Unexpected TRU Debris or Other Waste	Develop characterization & blending/packaging strategy; establish alternate waste disposition pathways			Completed shipment of Legacy CERCLA waste in October, increasing the confidence trend.
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-005: STP Settler Tank Retrieval	Develop multiple retrieval tools, and bounding simulant, to test most adverse conditions expected in Settler Tanks.			Initial Settler Tank insertion went well. Bulk retrieval on first tank currently underway.

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	
KBC-014: Increased Radiological Controls Required for KE and KW Basin D4	Dose rates encountered during the Phase IV excavation required an increase in Administrative Control Limits for Heavy Equipment Operators (HEOs); additional shielding; and additional HEOs to complete the work.	●	↑	Risk realized at KE Basin; impacts documented in BCR-012-09-005.
PRC-042: Resource Availability	Conduct job fairs; contract with alternate resource providers; develop training programs and work with local educational facilities and union halls to train required job specialties; establish company-wide prioritization for resource assignments	●	↑	RCT impacts continue to be realized, but newly trained RCTs being placed into projects.
KBC-004: Contamination Depth Greater Than Planned, Increasing Waste Volumes to ERDF	Unassigned Risk - No mitigation	●	↔	Risk has been realized and BCR is being prepared.
KBC-035: ERDF Packaging Can Shortage	Unassigned Risk - No mitigation	●	↓	Container availability limitations continued through October; requires continued mitigation.
PRC-044: ERDF Not Available for PRC Waste	Unassigned risk. Note that ERDF has modified off-load procedures, began dumping containers in the queue, and resumed container shipments.	●	↔	Risk realized at KE Basin; impacts documented in BCR-012-09-005. RL provided additional funding for recovery from ERDF impacts.
KBC-008: D4 Delays Impact 100K Waste Site Cleanup	Plan/Schedule Monitor progress. Manage the project and its interfaces to prevent or minimize this risk. (Logistics in schedule) May need to have other workscope planned & ready to allow work-arounds.activities are delayed.	●	↔	Project was able to meet the remediation start dates in September; later than planned start will be carried into FY 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 (%)	Budget at Completion (BAC)
Base	5.7	5.1	4.9	(0.6)	-10.7	0.2	3.5	532.6

Numbers are rounded to the nearest \$0.1M.

CM Schedule Performance (-\$0.6M/-10.7%)

The negative schedule variance is within reporting thresholds.

The STP negative variance (-\$0.6M) is due to: 1) additional testing at PNNL, requested by engineering, to understand the settling times of the sludge (with and without flocculant) for the loading/decanting of the Sludge Transfer Storage Containers (STSCs), which has delayed the characterization report on the K East sludge (Sludge Containerization System [SCS] 240, 250, and 260) and K West sludge from SCS 210 (-\$0.3M); 2) the BCWS for the KOP work scope that was completed in FY 2009 is now catching up, creating a negative schedule variance in both the KOP Phase 4 activities and the KOP design activities (-\$0.3M); 3) the project did not start the refurbishment of the MCO processing systems as planned, as STP and 100K Operations are reviewing all systems to ensure that CHPRC prudently make these investments (-\$0.2M); and 4) these negative variances are offset by the positive schedule variance for the installation and initiation of Construction Acceptance Test (CATs) for the Settler Tank Retrieval systems (+\$0.2M).

CM Cost Performance (+\$0.02/+3.5%)

The positive cost variance is within reporting thresholds.

The 100K Area negative variance (-\$0.4M) is due to K Basins Operations personnel staffed and budgeted as "ready to serve" K West operations activities and STP in-basin activities. These resources were underutilized by STP. Additionally, K East Basin Demolition was charged \$162K of ERDF disposal (belongs in RL-41 Waste Sites Remediation) and \$45K of Motor Carrier Services; there was a high level of support from two estimators working on the PMB Rev2 submittal as well as REA activities; and winter clothing was purchased.

The STP positive variance (+\$0.2M) is due to: 1) testing equipment less than planned this month (simulant and pumps not yet procured) (+\$0.1M) and 2) credit invoice accrual received from PNNL this month (+\$0.2M).

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)
Base	108.0	109.1	109.2	1.1	1.0	(0.1)	-0.1	532.6

Numbers are rounded to the nearest \$0.1M.

CTD Schedule Performance (+\$1.1M/+1.0%)

The positive variance within 100K (\$0.0M) is within reporting threshold.

The STP positive variance (+\$1.1M) is within the reporting threshold.

CTD Cost Performance (-\$0.1M/-0.1%)

The negative variance (-\$3.3M) within 100K is within reporting thresholds and has two main components: 1) the impact to demolition and waste shipments from the K East Basin excavation has a variance of (-\$1.4M). The effort was completed in FY 2009. 2) K West Basin Operations (-\$2.4M) impacts remaining from implementation of operational controls after a PISA was declared preventing the operation of the IWTS in the K West Basin in prior months and unplanned cost to maintain aging facilities in the 100K Area. These negative variances were offset by efficient performance in other accounts (+\$0.5M).

The STP positive variance (+\$2.6) is within the reporting threshold.

The assessment accounts (WBS 12.98 and 12.99) have a favorable variance (+\$0.6M) which is within established thresholds.

Contract Performance Report Formats are provided in Appendix A.

FY 2010 FUNDS VS. SPEND FORECAST (\$M)

RL-0012 Spent Nuclear Fuel Stabilization and Disposition	FY 2010		Variance
	Projected Funding	Spending Forecast	
Base	84.7	78.0	6.8

Numbers are rounded to the nearest \$0.1M.

Funds/Variance Analysis

Projected Funding includes FY 2009 uncosted and FY 2010 expected new Budget Authority (BA).

Critical Path Schedule

Critical Path Analysis can be provided upon request.

Estimate at Completion

The BAC and EAC now include FY 2009 through FY 2018, the PRC contract period.

Baseline Change Requests

See Overview.

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.

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comment
DNFSB 120W	Complete Sludge Treatment	DNFSB	11/30/09			Revised STP commitment dates provided to DNFSB by DOE-EM on 12/1/09

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.