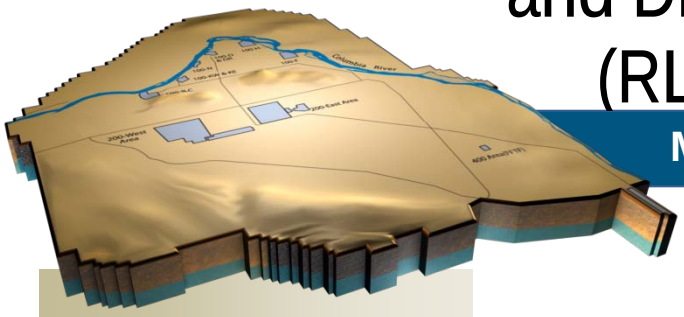
CH2MHILL
Plateau Remediation Company

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



Monthly Performance Report

Knockout pot wire separations funnel

Funnel on knockout pot copper inserts

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March 2011
CHPRC-2011-03, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

The Knockout Pot (KOP) subproject completed both qualification testing and operator training on the pretreatment equipment this past month. Operator input will require minor equipment modifications be made prior to installation and operation in the K West Basin. The equipment was de-installed from the Maintenance and Storage Facility (MASF) test set-up and returned to the fabricator for modifications prior to shipment to 100K for staging and installation. 100K operations personnel are clearing the floor space in the footprint area where the equipment will be installed. In addition, KOP #12 (the last KOP in service) was removed and the Integrated Water Treatment System (IWTS) was returned to operational status. Pretreatment operations are scheduled to commence in late April, after a Level 3 Readiness Review.

The Engineered Container Retrieval and Transportation System (ECRTS) subproject completed the Integrated Decant System test and the Overfill Recovery test this month. This completes the component level testing. During completion of these tests, the project moved forward with the development of the Integrated Technology Readiness Level (TRL) – 6 test set up and procedure. The final interlock tests, based on the final control decision documents, have been completed, and the integrated water runs were completed. The next steps will be setting up for the simulant mixing, draining the pool and loading the engineered container and initiating formal integrated testing at MASF.

ECRTS subproject internal comments were incorporated into the updated draft Fuel-Special Packaging Authorization (F-SPA) Checklist for the K East sludge material. The conclusion of the checklist indicates that up to three cubic meters of K East Basin sludge can be transported safely and is within the F-SPA's limitations per shipment. In addition, the structural review of the Sludge Treatment Storage Container (STSC) for both K West and settler tank sludge was issued. The structural review concluded that the previous structural evaluations of the STSC, developed when considering the K East sludge, were sufficiently bounded to cover the transports of the K West and settler tank sludge subpopulations.

An annotated outline was completed for the Technology Evaluation and Alternatives Analysis Report and Recommendation. The outline is based on a report consisting of two volumes. Volume 1 will be a 30 to 40-page summary of the evaluations and the recommendation. Volume 2 will contain the bulk of the data developed to support the evaluation. Significant progress has been made in developing the process description and evaluation appendices that form the bulk of Volume 2. Other key elements that will compose Volume 2 include selected sensitivity studies, the hazards consideration report, regulatory evaluations, and the cost and schedule evaluations. This approach is analogous to that taken in the previous STP alternatives analysis completed in 2009, which resulted in the recommendation to divide the project into Phase 1 and Phase 2. In addition, preliminary cost and schedule estimates were discussed with the RL Federal Project Director and his staff to provide input to RL's effort to address the M-016-140 milestone strategy.

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 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	Complete
		Issue quarterly status to all employees	03/31/11, 06/30/11	Complete 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	Complete
		Issue quarterly status to all employees	03/31/11, 06/30/11	Complete 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	4	N/A
First Aid Cases	1	16	**03/27** 100K NCO experienced low back pain while working with a pole tool in the basin. **(21855)**
Near-Misses	0	0	N/A

KEY ACCOMPLISHMENTS

PBS RL-0012

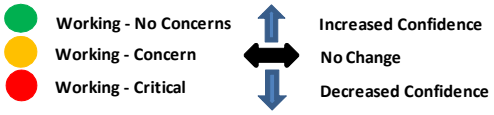
- PRC-STP-00187, Rev. 1, *Sludge Treatment Project KOP Disposition – Thermal and Gas Analysis for the Cold Vacuuming Drying Facility*, was approved and released. This critical analysis documents that KOP product material remains thermally stable during all operational evolutions as well as during long-term storage.
- AREVA Federal Services delivered the draft shielding analysis for the transport of K West Container sludge. The analysis concludes that the calculated dose rates are within allowable F-SPA transportation conditions.
- Construction services personnel supporting the initial K West Annex modification for the upcoming ECRTS subproject cleaned the annex and completed bird barrier modifications, so the annex can be modified prior to the construction of the new annex facility to support sludge shipments to T-Plant.
- Pacific Northwest National Laboratory (PNNL) composite and sub-sampling of the SCS-CON-210 samples has been completed and the subsamples have been transferred from the High Level Radiochemistry Facility into the Shielded Analytical Laboratory. Radiochemical analyses have begun.
- PNNL completed settling tests at 0.5 weight (wt) % and 1.0 wt% on the initial sample collection on the SCS-CON-230 settler tank sludge. Due to results the next phase of testing, suspended solids slurry, will be collected after 30 minutes of settling. In addition, gamma energy analysis and particle density analysis were initiated on the 600-micron sieve fraction of the settler tank sludge composite material.
- 100K Operations personnel completed videotaping an additional 269 cubicles in the center bay this month and Safeguards bought off on an additional 185 cubicles as fuel free in the center bay.

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 April/May.
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	●	↔	Current fuel free validation activities have found no additional fuel elements.
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) 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	8.2	7.1	8.9	(1.1)	-13.6	(1.8)	-25.4
Numbers are rounded to the nearest $0.1M							

CM Schedule Performance (-$1.1M/-13.6%)

The current month schedule variance is driven by the KOP subproject, where the pretreatment equipment required re-work after the operator training identified minor changes to the system, which prevented the fabrication of the KOP processing equipment as planned.

Corrective Action: Fabrication of the KOP Processing System (KPS) equipment is nearly complete. The equipment should be delivered to the project next month which will correct this one-month schedule variance.

CM Cost Performance (-$1.8M/-25.4%)

The current month cost variance was driven by the ECRTS subproject where two BCRs were planned to be implemented during the month (one for annex design risk incurred and one for acceleration of the modification to the existing annex) where work was initiated, but without approval of the BCRs, BCWS was not established.

Corrective Action: The BCRs are scheduled to be implemented in the month of April, which will correct this one-month variance.

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	209.3	204.6	211.3	(4.7)	-2.3	(6.7)	-3.3	581.6	588.8	(7.1)
Numbers are rounded to the nearest $0.1M										

CTD Schedule Performance (-$4.7M/-2.3%)

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

CTD Cost Performance (-$6.7M/-3.3%)

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)

	FY2011		
RL-0012 Spent Nuclear Fuel Stabilization and Disposition	Projected Funding	Spending Forecast	Spend Variance
Base	83.8	78.9	4.9

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.

Estimate at Completion (EAC)

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

Baseline Change Requests

BCRA-PRC-11-025R0, Adjustments to Fee

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 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-016-140	Submit Revised RD/RAWP for 100K RODs with New Milestones	TPA	03/31/11	03/30/11		Completed
M-016-170	Complete Knock-Out Pot Material Pre-treatment	TPA	9/30/11			On Schedule. New milestone approved 3/17/11.

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.