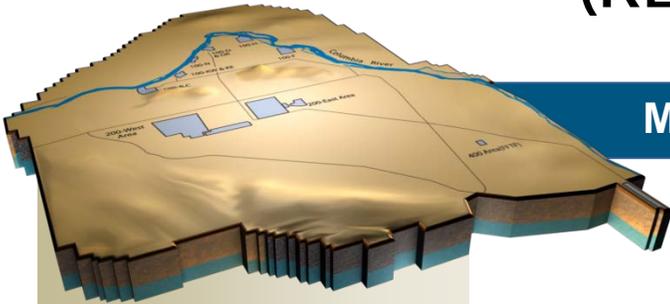


Section B Spent Nuclear Fuel Stabilization and Disposition (RL-0012)

Monthly Performance Report



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Sludge Retrieval Test Tool



**Pool Slabs
moving to Pit 9
at MASF**

PROJECT SUMMARY

Sludge Treatment Project (STP) and 100K Operations personnel completed retrieval of Settler Tanks #4 (N3), #5 (N2), #6 (N1), and #7 (S4) during the month of March. During the retrieval from the last Settler Tank, the retrieval pump began to exhibit degradation, and a decision was made to replace the pump prior to starting the next Settler Tank. STP is currently in the process of procuring two complete spare pump skids from Parsons.

The formal design review of the knockout pot (KOP) disposition subproject Conceptual Design Report (CDR) concluded this month, following reviews by the STP External Review Panel and the CHPRC Review Team, which was lead by the CHPRC Central Engineering office and included 16 highly experienced engineering and technical personnel covering 12 different discipline areas. The review format was patterned after the successful design review of the Engineered Container Retrieval and Transportation System (ECRTS) CDR that occurred in January. In all, the review resulted in approximately 120 comments, of which only five were Type A. Comments identifying inadequate or missing requirements/assumptions will be resolved and incorporated into the design prior to CDR completion. The CDR is on schedule for completion in early April 2010.

The subcontractor modifying Maintenance and Storage Facility (MASF) for the installation of the K Basin pool replica completed removal of the 210,000 and 218,000 pound blocks, removed the internal vertical wall structure, installed the rebar, poured the final concrete for the floor, pressure washed the walls, and applied the Protoseal to the floor and walls. Fabrication of the superstructure that will sit on top of the pool to replicate the monorail systems is underway and will be delivered beginning early April. Statements of Work for all four proof-of-concept vendors for the Phase 2 Alternatives Analysis scope have now been approved and are being worked through CHPRC procurement. All vendors have been contacted and have updated procurement information and registrations on CHPRC's procurement system, so that Request for Proposals and contracts can be issued. Efforts to integrate and coordinate the procurement and preparation of the various simulant materials that will be required to support proof-of-concept testing have also been initiated. An initial estimate of all required materials for each vendor has been prepared. MASF and PNNL personnel are reviewing the integrated list to identify any potential supply issues.

EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
09-EMS- EPC-10-OB4- T1	Identify Pollution Prevention opportunities for the Sludge Treatment Project locations	Perform Assessment/Surveillance (EPC-STP-SURV-10036 – IEP #7725) of programs to be implemented	3/31/10	Complete
		Implement recommendation actions at the Federal Bldg	5/31/10	On-schedule
		Implement recommendation actions at MASF	6/30/10	On schedule
		Follow-up Assessment/Surveillance	9/30/10	On Schedule

TARGET ZERO PERFORMANCE

	CM Quantity	FYTD Quantity	Comment
Days Away, Restricted or Transferred	0	0	N/A
Total Recordable Injuries	0	2	N/A
First Aid Cases	2	16	03/02/10 – NCO bumped right shin while pushing a cart. (20736) 03/03/10 – RCT was surveying while scaffolding was being erected. RCT bumped arm on scaffolding causing a superficial laceration to left forearm. First aid was provided to stop bleeding and worker was transported to AMH. Worker was treated and a water proof bandage was applied. No medication was given and worker was released without restrictions. (20742)
Near-Misses	0	0	N/A

KEY ACCOMPLISHMENTS

Sludge Treatment Project (STP)

- In preparation for the XAGO Transfer System Test, MASF personnel have fabricated spool pieces for the inlet/discharge of hose pump, fabricated the skid for the pump, modified the valve rack, and determined needed pressure relief devices and place the order for the devices. Several test runs, to adjust the system and to confirm the Coanda Flow Rate on the modified tool, were conducted. Finally, initiated the installation of the control loop that will adjust the educator feed supply pressure when the flow rate drops below a set point.
- Material was received and fabrication of the retrieval developmental tool was initiated for the Overflow Retrieval Test and started setup of equipment for mockup testing and identified needed items for procurement.
- Container lid deployment test tools have been fabricated and testing completed on the first generation of the bolt removal tool.
- In support of 100K operations, MASF personnel ordered the brushes and material to fabricate components for engineering container lid modifications, to demonstrate a conceptual system that may help reduce sludge overflow in the K West basin, during the next vacuuming campaign.
- Also, in support of 100K operations, MASF personnel have received materials and fabricated a mockup process table for use in testing the hydraulic cutter for debris size reduction.
- Procurements for ECRTS test equipment placed this month include: 1) Sand Filter/Containment assembly; 2) Sludge transfer and storage containers hose-in-hose assemblies, fixtures and platform; 3) Sludge Transfer System (STS) trailer; 4) STS mockup; 5) Automated Flush System; and 6) Decant box.
- Focus group meetings have been completed to continue development of the Data Quality Objective document to support Garnet Filter media characterization. Input to the Primary Study Questions was

obtained from Radiation Protection, Nuclear Safety, Transportation Safety, Environmental, and Process Design personnel.

- A work package was approved which allowed for radiation level measurements to be taken along the entire vertical height of each of the three Garnet Filters. Currently the only radiation measurement is taken at the sand/water interface. These observations will provide better indication of the distribution of the material being captured in the media.
- A calculation providing a basis to demonstrate that the planned transportation configuration for Settler Tank sludge samples will meet transportation requirements for dose rates exterior to the shipping containers was approved. This calculation also provides an analysis, to be used as an aid, during operations to determine which of the two shipping containers should be selected for a specific sample.

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	
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-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 simulants, to test most adverse conditions expected in Settler Tanks.			Settler Tank retrieval is progressing as planned.

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	5.7	5.4	5.7	(-0.3)	-5.2	(-0.3)	-5.6

CM Schedule Performance (-\$0.3M/-5.2%)

The 100K Area and STP current month variances are within reporting thresholds.

CM Cost Performance (-\$0.3M/-5.6%)

The 100K Area and STP current month variances are 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	130.9	129.6	131.1	(-1.3)	-0.1	(-1.5)	-0.1	576.9	577.9	-1.0

Numbers are rounded to the nearest \$0.1M.

CTD Schedule Performance (-\$1.3M/-0.1%)

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

CTD Cost Performance (-\$1.5M/-0.1%)

The combined 100K and STP variances are within reporting 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	86.8	79.1	7.7

Numbers are rounded to the nearest \$0.1M.

Funds/Variance Analysis

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

Critical Path Schedule

Critical Path Analysis can be provided upon request.

Estimate at Completion (EAC)

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

Baseline Change Requests

BCRA-012-10-006RO, Transfer Nitrate Inhibitor Study Scope from STP Phase 1 to STP Phase 2.

MILESTONE STATUS

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 12/01/09

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.