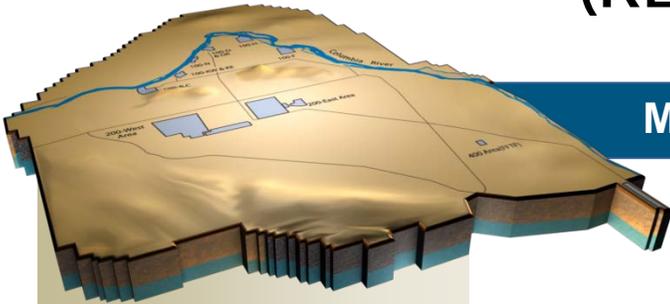


Section B Spent Nuclear Fuel Stabilization and Disposition (RL-0012)

Monthly Performance Report



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Preparing Maintenance and Storage Facility (MASF) Test Pool

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Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

The Engineered Container Retrieval and Transportation System (ECRTS) Critical Decision-1 (CD-1) package was completed and submitted to RL on February 23. The Conceptual Design Report (CDR) has been through an internal Sludge Treatment Project (STP) and independent reviews (per CHPRC procedure) and comments have been incorporated. The Baseline Change Request (BCR) that supports planning the next phase of the project (submitting a CD-2/3 package), as required by the Project Definition Rating Index (PDRI), was also completed and approved by the CHPRC Change Control Board (CCB).

The Knockout Pot (KOP) Conceptual Design Report preparation continues with the incorporation of the testing results and comments received during an internal project review. The STP External Review Panel (ERP) was on-site the week of February 16-18, and reviewed the KOP Disposition Project documentation. Along with the draft CDR, four technical basis documents were reviewed. They are: 1) Hydrate Analysis; 2) Thermal Analysis; 3) Multi-Canister Overpack (MCO) Load Plan; and 4) Drying Analysis. A formal design review (FDR) of the CDR package is planned for early March and the CDR submittal is schedule to be transmitted to RL by the end of March.

Maintenance and Storage Facility (MASF) personnel completed the fall protection plan for use of the horizontal life line with CHPRC approval for its use. They also completed the critical lift plan for the Hazards Review Board (HRB) review. The ISMS Phase II team attended the HRB for the K Basin Pool Mockup critical lift work scope and conducted interviews of MASF personnel. The subcontractor has completed all core drills for the beams on the east and west pits, installation of both beams on the west pit, and concrete cutting and removal of the south and north sides.

STP and 100K Operations personnel have completed removal of the sludge from Settler Tank #3 (S3) and emptied the contents into Engineered Container 230. The hose reel was relocated and entry was made on Settler Tank #4 (N3) for bulk retrieval. To date, very little overflow from EC 230 has been observed, indicating the filtration system, as tested at MASF, then installed to contain the overflow is working well.

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	On schedule
		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	3	14	02/12/10 - HPT contused left upper forearm when brushed against a sharp edge on a desk. Reported to supervisor. It was determined self-treat with a bandage was appropriate. (20716) 02/16/10 - Engineer was packing boxes. Scraped right index finger on box causing a minor cut. Discussed with supervisor and elected to self-treat. (20717) 02/22/10 - RCT cut left index finger knuckle on the top of the instrument cabinet in the lab. Worker and supervisor elected to self-treat with a band aid. (20729)
Near-Misses	0	0	N/A

KEY ACCOMPLISHMENTS

Sludge Treatment Project (STP)

- STP personnel briefed RL on the path forward for initial testing of potential Phase 2 treatment technologies and gained their concurrence on the plans. STP personnel have initiated meetings/teleconferences with the technology vendors to begin development of statements of work for the Round 2 testing programs for each of the primary technologies.
- A kick off meeting was held to initiate development of the Data Quality Objectives document for Garnet Filter media disposition. In addition, two focus group meetings were held to continue development of the DQO document to support Garnet Filter media characterization. Primary Study Questions (PSQ) dealing with Safeguards and Waste Acceptance were discussed.
- One of the Phase 2 technologies to be evaluated utilizes a special mixer dryer manufactured by the Littleford-Day Company. STP learned that the PNNL APEL facility was in the process of excessing a 22 liter Littleford-Day dryer originally purchased by the Demonstration Bulk Vitrification System Project for laboratory testing of a similar process. The Phase 2 project has started the property transfer process to obtain that dryer for use in the Round 2 testing.
- Staged the upper section of the Engineered Container mock-up at MASF to support use of cover brushes in support of testing overflow control, for when the 100K Basin Operations personnel vacuum the remaining floor and pit sludge from K West Basin into Engineered Container SCS-210.
- A spare Settler Retrieval pump was successfully leak tested at MASF following installation of repair parts provided by the manufacturer. This spare unit is required because the initial backup pump has already been installed in the K West Basin. Leak testing was performed per construction work package 4A-09-07459/W and witnessed by Quality Assurance and the Design Authority.

- PNNL transmitted a report summarizing the results from the Stage 1 and Stage 2 settling studies of K West Basin containerized sludge to CHPRC for review
- A hazard analysis was conducted to review removing filters from SCS-CON-230. Also discussed at this meeting were the Emergency Preparedness activities that will need to be completed prior to lifting filters out of the water. Removal of these filters is necessary to prepare this container for sampling activities.
- In support of 100K Operations field work, MASF personnel continued development work on a long handle pole tool to measure the depth of sludge in the K West North Load Out Pit, fabricated spacers for the lid on SCS-CON-210 (where remaining floor and pit sludge will be vacuumed), and continued design/fabrication of lid cover brushes to help control sludge overflow once vacuuming re-starts.
- The ECRTS Transportation Plan was added to the project files and provided to RL. The plan incorporates previously received RL review comments.
- PNNL provided a test report, *Parametric Dosage Testing of Clarifloc® N-3300P Using Actual K Basin Waste Core Samples*, to CHPRC. The objectives of the test were to show that flocculent could be used to reduce the turbidity of the slurried K West Basin solids. Test results demonstrate that the objectives were met during the study.
- Test report PRC-STP-TR-00181, *Sludge Treatment Project Slurry Transfer Testing for Direct Hydraulic Loading, Centrifugal Slurry Pump* (Hazelton pump wear test report) was approved by the Joint Test Group (JTG) (with comments)

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 (%)	Budget at Completion (BAC)
Base	5.6	4.6	5.3	(1.0)	-17.9	(0.7)	-15.2	576.9

Numbers are rounded to the nearest \$0.1M.

CM Schedule Performance (-\$1.0M/-17.9%)

The STP negative variance (-\$1.0M) is due to: a) Setter Tank Retrieval design and installation activities completing early, and BCWS now catching up, along with a change in plans on how to train operations personnel on the sampling of that material has caused a slip in schedule (-\$0.2M); b) MASF pool subcontractor had difficulty removing the slabs and fell behind schedule (-\$0.1M); c) several subcontracts for ECRTS were not awarded as planned (-\$0.4M); and d) project decisions to not use nitrite in the KOP disposition and to evaluate all system upgrades for KOP processing have slipped these activities (-\$0.3M).

Recovery plans include: a) training on settler sampling should occur closer to actual sampling for proficiency; b) overtime was approved for MASF pool implementation to recover schedule; c) subcontracts are scheduled for award by March 15; and d) a BCR has been generated to move nitrite activity to ECRTS Phase 2 scope and other KOP procurements are in process.

CM Cost Performance (-\$0.7M/-15.2%)

The 100K Area negative variance (-\$0.2M) is within the reporting threshold.

The STP positive variance (+\$0.0M) is within the reporting threshold.

The Project Services & Support negative variance (-\$0.5M) is due to a point adjustment to correct an error in the monthly phasing for implementation of PRC-10-011 "PRC Baseline Revision 2".

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	125.2	124.2	125.5	(1.0)	-0.8	(1.3)	-1.0	576.9

Numbers are rounded to the nearest \$0.1M.

CTD Schedule Performance (-\$1.0M/-0.8%)

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

The STP negative variance (-\$1.0M) is due to: variances addressed in current month (above).

CTD Cost Performance (-\$1.3M/-1.0%)

The combined STP and 100K negative variance (-\$1.3M) are within the 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	80.2	6.6

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

BCR-012-10-003R0, Engineered Container Retrieval, Transfer and Storage

BCR-012-10-004R0, Develop the F&R's and SOW for a Conceptual Design RFP

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.