

Section B

Spent Nuclear Fuel Stabilization and Disposition (RL-0012)



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June 2012
CHPRC-2012-06, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

With the CHPRC Level 2 Readiness Assessment completed on 05/31/12, the DWF&RS Staff at 100K focused on completion of all prestart punch-list activities, which were all completed by 6/12/12. In addition to the documentation activities, the 105K West Basin Staff have splashed the first KOP MCO and staged sufficient MCO Scrap Baskets & Copper Inserts to complete loading that first MCO.

The DWF&RS Vice President provided Startup Authorization and the 105KW Basin Operations Organization commenced the KPS Campaign on 6/12/2012.

Initial KPS operations were significant. A small quantity of KOP material was successfully processed across the KPS process table, loaded into verification containers, and subsequently loaded into copper inserts. Following installation of the copper insert upper screens, two inserts were loaded into an MCO Scrap Basket. Having processed KOP material through the entire evolution is significant as all KPS hardware was validated to function properly and is capable of fulfilling the intended mission.

A total of eight (8) copper inserts were loaded with KOP product material by the end of the reporting period. Although KOP processing will be interrupted the week of June 25 to facilitate an ion exchange module (IXM) system outage at the KW Basin, the plan is to complete the loading of four (4) additional copper inserts and then load them into the MCO. The Basin operations staff will complete a "close and lift" of the MCO on 07/08/12 and ship the MCO to CVDF for drying on 07/09/12.

The Technical Safety Requirements modification that restored KPS proof-of-dryness testing criteria at the Cold Vacuum Drying Facility was approved by RL on 06/12/12. The CVDF support staff has subsequently implemented the TSR change into facility documentation in preparation for receiving the first MCO.

The final prestart activity to fully prepare the CVDF for drying KOP product material MCOs was completed the week ended 6/22/12. The facility and support staff are now ready to accept and process the first KOP MCO. Drying of the first KOP MCO is scheduled to be performed the week of 07/09/12.

Final design of the Engineered Container Retrieval and Transportation System, as well as the Process Equipment, continued throughout the month.

Installation of HLAN infrastructure and computers for the ECRTS Mobile Office Installation was completed this week. Following Fire Marshall walk down, occupancy approval was granted on 06/19/12 and the Construction Completion Document was approved on 06/20/12.

On 06/12/12, a CHPRC Project Review Board (PRB) was held to verify that actions necessary to support the start of the Modified KW Annex construction were complete. Subsequently, actions were initiated to complete the construction prestart punch-list items resulting from the meeting. Progress to date indicates that prestart punch-list items will be closed mid-July, prior to the start of construction.

CVDF Continued to work punch listed PMs in preparation for KOP MCO Processing beginning in July and continuing through the summer.

PNNL issued a report titled Integrated Report for the Further Evaluation of Total Organic Carbon, Particle Size Distribution, and Gel Formation in Selected Samples of K Basin Sludge (PNNL-21447). These evaluations provide additional information that responds to questions about specific characterization results that were identified during the data validation process.

The Data Validation Report for KW Basin EC-210 Sludge Characterization Data (PRC-STP-00560) was submitted for formal E-QA and Environmental review. This document summarizes the efforts to validate and assess the data package provided by PNNL and provides a statistical comparison of the composition and properties of EC-210 sludge vs. characterization data from sludge in other previously characterized engineered containers.

A draft of the Existing Facilities Screening report for the Phase 2 Siting Study was delivered to STP management. The report summarizes the evaluation of some 22 existing nuclear facilities; applies

screening criteria, and recommends further technical efforts be focused on T-Plant, FMEF, and the CVDF.

Alternative methods to accomplish water removal are being investigated as part of the Phase 2 Flow sheet evaluation. The technical basis flow sheet assumes evaporation to produce high solids content slurry which must be transferred and metered into individual drums. Alternatives such as filtration, centrifugation, agitated vacuum dryers, or wiped film evaporators might allow agitation and transfer of more dilute slurries during the oxidation process; with the final concentration being accomplished as the slurry is introduced into the product drum. Initial water balances have been completed to establish the duty cycles, and background technical data on the various options is being collected.

TARGET ZERO PERFORMANCE

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	1	N/A
Total Recordable Injuries	0	1	N/A
First Aid Cases	5	38	<p>6/4 RCT from D4 was distracted while walking and fell landing on both knees and hands. (22779)</p> <p>6/7 D&D worker got foreign body into eye while working with ERDF cans. (22788)</p> <p>6/20 Planner reported injury to left arm/wrist from using mouse at work. (22804)</p> <p>6/29 HPT from 105KW reported being bitten by a bug on the right thumb (22815)</p> <p>6/29 HPT from 100K reported ascending stairs and experiencing a sharp then persistent pain in the left knee. (22814)</p>
Near-Misses	0	0	N/A

KEY ACCOMPLISHMENTS

The Knock Out Pot Processing System Operating Campaign officially started on 6/12/2012 following completion of the final KOP Readiness Assessment prestart punch-list activity earlier the same day.

During the week ending 6/22/12 the ECRTS project achieved a significant milestone on the path to the construction of the new STP Annex at 105 KW with the completion of the Fire Line and Electrical Utilities relocation projects. The project met all its goals and was completed with zero safety incidents, including zero first aid cases. The Fire Line relocation installation was completed without any design changes.

The second ECRTS Technology Readiness Assessment was held this month; all Critical Technology Elements were determined to be at a TRL-6 level.

STP Project Execution Plan, Rev. 5, was approved on 06/06/12. The PEP was updated to reflect progress







of the project, the incorporation of the CD-3A authorization for early construction of the KW Annex modification, and to reflect updated CHPRC PEP procedure requirements.

















MAJOR ISSUES

No major issues to report this month.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

 Working - No Concerns  Increased Confidence
 Working - Concern  No Change
 Working - Critical  Decreased Confidence

Risk Title	Risk Strategy/Handling	Assessment		Comments
		Month	Trend	
RL-012/WBS 012				
STP-057: PWC & IWTS IXM Change Out	Physical properties of the KOP material are not expected to result in change out of the PWC & IWTS ion exchange media. 8 Additional IXM on hand to change out as required.			No issues at this time. <i>IXM change out occurred in June.</i>
STP-030: 100K KOP Systems Operation (CHPRC Risk)	Perform aggressive CM & PM Program for the IWTS, RRS, CLS, and other system to support MCO Loading.			No issues at this time. MLS/CLS Gantry complete - On schedule for 32 ton crane PM in July/August.
STP-054: KOP Startup	Initiate startup/readiness activities to minimize impacts.			<i>Risk Passed – All pre-start activities closed.</i>
STP-007 Competing Priorities	Develop detailed working schedules and institute interface meetings to communicate priorities and progress. Overtime used to mitigate impacts of schedule delay.			No change in trend over past month.
PRC-021A: Workforce Restructuring Caused by Funding Changes	Revise project schedules and work planning documents around workforce restructuring timelines. Work with other contractors to minimize impacts associated with Bump and Roll.			Based on FY2013 funding projections, CHPRC is initiating a workforce restructuring action.
PRC-029, Unforeseen Facility Condition	Maintain questioning attitude within the workforce to identify unforeseen conditions early. Mobilize task team to respond to issues promptly and obtain priority for document approvals.			Based on efficiencies achieved during Found Fuel processing, CHPRC believes schedule lost to resolve MCO dryness USQ can be recovered during KOP processing. However, impending workforce restructuring may impact productivity.
STP-ANX-002: Ecological/Cultural Conditions Restrict Field Activities	Accelerate cultural resource review to minimize schedule impact of cultural resource mitigation is required prior to initiating Annex Construction.			<i>Risk Passed – Cultural resource reviews completed – no issued identified.</i>
STP-ANX-008: Annex Design and Requirements Changes	Maintain rigorous control of design specifications. Streamline approach for addressing contractor submittals and RFI's to acknowledge and minimize design changes. Communicate regularly with stakeholders (DOE, contractors, and CHPRC organizations) regarding impacts and potential changes.			Annex design/construction contract released in May.

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	5.4	4.9	5.5	-0.5	-8.5	-0.5	-11.1

Numbers are rounded to the nearest \$0.1M

CM Schedule Performance (-\$0.5M/-8.5%)

The negative schedule variance is due to a slow start by the new Annex construction contractor.

CM Cost Performance (-\$0.5M/-11.1%)

The negative cost variance due to Title III engineering cost/accrual ramping up quicker than planned, partially offset by KOP Operations.

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	307.4	304.3	308.9	-3.1	-1.0	-4.6	-1.5	532.2	536.2	-3.9

Numbers are rounded to the nearest \$0.1M

CTD Schedule Performance (-\$3.1M/-1.0%)

Variance is within reporting thresholds.

CTD Cost Performance (-\$4.6M/-1.5%)

Variance is within reporting thresholds.

Contract Performance Report Formats are provided in Appendix A.

Estimate at Completion (EAC)

The current EAC change is within reporting thresholds.

FUNDS vs. SPEND FORECAST

(\$M)

RL-0012 Spent Nuclear Fuel Stabilization and Disposition	FY2012		Spend Variance
	Projected Funding	Spending Forecast	
Base	86.9	86.9	0.0

Numbers are rounded to the nearest \$0.1M.

Funds/Variance Analysis

The variance is within reporting thresholds.

Critical Path Schedule

Critical Path Analysis can be provided upon request.

Baseline Change Requests

None identified at this time.

MILESTONE STATUS

Tri-Party Agreement (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. The PMB Revision 3, implemented in November 2011, and subsequent approved BCRs define CHPRC planning with respect to TPA milestones.

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comment
DNFSB 120W	Complete Sludge Treatment	DNFSB	11/30/09			A pending Implementation Plan update will address this milestone.
M-016-172	Complete KOP Material Removal from 105-KW Fuel Storage Basin	TPA	9/30/12		9/30/12	Project is progressing.

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.