

Section C

Solid Waste Stabilization and Disposition (RL-0013)



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PROJECT SUMMARY

American Recovery and Reinvestment Act (ARRA)

The last of the ARRA funded mixed low-level waste (M/LLW) has been completed and the treated waste residues were returned to Hanford from Perma-Fix East and disposed of in the Mixed Waste (MW) Disposal Unit on May 8, 2012.

Base

The W&FMP continued maintaining facilities in a safe and compliant condition. Waste Receiving and Processing Facility (WRAP) completed repack of three transfer drums in the Transuranic-Restricted Waste Management glove box; four out of eight drums are completed. T Plant performed a scheduled full-up Emergency Preparedness Drill. Central Waste Complex (CWC) and Low Level Burial Ground (LLBG) prepared for mitigation of the 231-ZDR-11 concrete box in the expansion area. Liquid Effluent Facilities (LEF) received 16 tankers (calendar year [CY] 73k gallons). 200A Treated Effluent Disposal Facility (TEDF) discharged 2.3 million gallons (CY 5.1M). Liquid Effluent Retention Facility (LERF) Basin 44 received 378k gallons of ERDF leachate (CY 1.2M). Canister Storage Building (CSB) shipped cold multi-canister overpack (MCO) H-170 to K Basin. Waste Encapsulation and Storage Facility (WESF) completed 845 out of 948 scheduled Cs/SR capsule moves as part of thermally balancing the capsule inventory in the pool cells.

EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
12-EMS-WFM-OB1-T1	Reduce the generation and/or toxicity of waste at the source by using biological spill treatment.	Evaluate biological spill treatment/cleanup products available to address petroleum based spills and identify opportunities for use within the W&FMP based on FY12 work scope.	9/30/2012	50% complete, plans to address in July 2012.

TARGET ZERO PERFORMANCE

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	2	N/A
Total Recordable Injuries	0	6	N/A
First Aid Cases	0	56	N/A
Near Misses	0	1	N/A

KEY ACCOMPLISHMENTS

ARRA

Lay-Up Activities

- The last of the American Recovery and Reinvestment Act (ARRA) funded M/LLW was received and the treated waste residues were returned to Hanford from Perma-Fix East and disposed of in the mixed waste disposal unit on May 8, 2012.

Base

13.01 Project Management

- Continued Project Management support for high priority projects.
- Updated the Fiscal Year 2013 Performance Measurement Baseline.

13.02 Capsule Storage & Disposition

- Completed repair of Fire Door #121
- Completed the overdue PM on Personal Contamination Monitor #608-1
- Completed Third Party Inspection and Maintenance Inspection of the 225B Elevator
- Completed a total of 845 out of 948 scheduled cs/sr capsule moves. Spacing in Pool Cells 3, 4, 5, and 6 is complete.

Canister Storage Building (CSB)

- Completed implementation of Final Safety Analysis Report (FSAR) annual update.
- Completed implementation of knockout pot (KOP) FSAR amendment.
- Installed temporary air compressor as backup air supply supporting stack dampers and MCO Handling Machine (MHM) grapple operation.
- Completed annual MHM seismic pressure gauge calibration.
- Completed quarterly maintenance on transporters HO-64-5260 and -5361.
- Completed annual calibration of Sample Weld Station Pressure Indicator PI-735.
- Completed cask receiving crane 10-ton Lower Block Internal Sheave Wear Assessment.
- Completed MHM operations moving MCO H-159 into Sample/Weld Pit #7.
- Completed annual maintenance on Compressor #CX-1A.

13.07 WRAP

- Completed one Technical Safety Requirement (TSR) surveillance.
- Completed 25 Preventive Maintenance (PMs) packages.
- Completed 182 Rad Operational Surveillances.
- Completed 189 Operational Surveillances.
- Shipped three low-level waste drums to the Environmental Restoration Disposal Facility (ERDF).
- Shipped one drum off site for treatment.
- Completed all Technical Safety Requirements (TSR) Preventative Maintenance's (PM) in the Process Area
- Completed all Low-Level Waste (LLW) Glove Box maintenance work in preparation for clean out and lay up

13.08 T-Plant

- Completed five Technical Safety Requirement (TSRs) surveillances.
- Completed 19 Preventive Maintenance (PMs) packages.
- Completed 317 Rad Operational Surveillances.
- Completed 222 Operational Surveillances.

13.09 Central Waste Complex (CWC)

- Completed seven Technical Safety Requirement (TSRs) surveillances.
- Completed 18 Preventive Maintenance (PMs) packages.
- Completed 243 Rad Operational Surveillances.
- Completed 77 Operational Surveillances.
- Continued carport assembly to cover Box 231ZDR-11 (95% complete).
- Moved three of the seven boxes near 231ZD-11 in order to remediate radiologically contaminated soil.
- Received two shipments (totaling 12 packages) of TRU waste from PFP.
- Received twenty new Standard Large Box 2 (SLB2) shipping containers on behalf of PFP.

13.11 Liquid Effluent Facilities (LEF)

- Received 16 tankers (calendar year [CY] 73k gallons)
- Treated effluent to State-Approved Land Disposal Site: 2.0M gallons (CY 7.1M)
- 200A Treated Effluent Disposal Facility (TEDF) discharged 2.3M gallons (CY 6.7M)
- Received Environmental Restoration Disposal Facility (ERDF) leachate (378k gallons) at Liquid Effluent Retention Facility (LERF) Basin 44 (CY 1.2M)
- Continued operating the 310 Retention Transfer System (RTS): CY 67k gallons
- Pumped 21 customer waste drums to Sump 1, then to Secondary Waste Retrieval Tank (SWRT) A
- Completed loading and shipping of 40 drums to ERDF
- Maintenance activities:
 - Replaced ventilation off-gas (VOG) pre-filter
 - Repaired/replaced air operated caustic addition valve 65C-058 to SWRT A
 - Replaced ultra-violet #1 lamps 5, 10, 12 and lamp 6 ballast
 - Completed repairs on 12" raw/fire water main
 - Replaced clean-in-place pressure safety valve
 - Repaired caustic leak discovered at the coupling between 65C-104 and AOV-65C-149 at the polishers
 - Replaced air vacuum relief valve at TL-5
 - Completed Concentrate Tank A in-tank inspection
 - Completed rebuild and install of reverse osmosis feed pump 60F-P-1A

13.12 Integrated Disposal Facility

- Completed four Operational Surveillances

13.16 Off Site Spent Nuclear Fuel Disposition

- Maintained coordination for offsite Spent Nuclear Fuel Disposition.

13.21 Mixed Waste Disposal Trenches




- Maintained the facility in a safe and compliant condition.
- Completed 25 Radiological and five operational surveillances.
- Received four shipments (totaling eight packages) consisting of treated M/LLW packages into the mixed waste Disposal Unit from offsite treatment facilities.




MAJOR ISSUES

















None identified.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

 Working - No Concerns
 Working - Concern
 Working - Critical

 Increased Confidence
 No Change
 Decreased Confidence

Risk Title	Risk Strategy/Handling	Assessment		Comments
		Month	Trend	
RL-013/WBS 013				
WSD-018: CSB Major Equipment Failure	Risk accepted without mitigation. Continue to maintain equipment in accordance with baseline PM/CM schedule.			Risk is very unlikely.
WSD-019: Commercial Capability	MLLW treatment capacity/capability does not meet Hanford needs or treatment does not occur as scheduled.			Forecasted volumes may not allow commercial capability to remain viable. Working with vendor(s) to understand impacts.
WSD-025: Unexpected Waste Volumes/Characteristics	Work with generators to update forecasting data monthly/quarterly/semi-annually.			Waste volumes to ERDF significantly lower due to suspension of cleanup activities, However, as capability/capacity has been adjusted to align with projections peak transportation needs are problematic.
WSD-043: Orphan Wastes	Obtain regulatory relief for "No Path Forward" wastes.			Issued "No Path Forward" waste and German log alternatives analysis. Annual update of M-91 PMP will document current status.
WSD-125: Three-Year Pause in Waste Processing Results in Unexpected Container Integrity Issues	Perform weekly waste container surveillances and overpack as required. Perform overpack or covering as required to mitigate condition. Schedule repackaging at appropriate facility.			Unplanned repackaging activities are nearing completion at WRAP. Legacy containers in expansion area are requiring additional resources. The Long-Term Box Storage is not in the contract Statement of Work, and will be addressed as part of the contract alignment process.
WSD-120: WESF Major System/Equipment Failure	Continue with the current maintenance program and aggressive PM and CM program.			No significant maintenance issues this month at WESF.
WSD-132: Aging Building/Systems/Components	Perform critical system reliability assessments, continue with PM/CM program, and procure critical spares.			Continue CM activities for equipment at ETF and 400 Area.
WSD-133: Results of External Audits/Assessments Impact Operations	Conduct operations in accordance with current approved procedures and processes. CHPRC and RL conduct routine assessments to assess conduct of operations and maintenance activities. Work with oversight groups to understand regulatory basis for interpretations.			On-Schedule with completion of the WESF Corrective Action Plan developed in response to the DNFSB audit from June 2011. No change in trend.

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 FY-13 funding projections, CHPRC is initiating a workforce restructuring action.
PRC-007: ERDF WAC Revised	Provide budget for waste treatment and disposal to ERDF. Package and deliver waste in accordance with ERDF waste profiles. Waste profiles are assumed to be compliant with ERDF WAC	●	↓	CHPRC waste generation process and practices provided funding to WCH to perform in-trench macro encapsulation. EPA may request WCH halt in-cell macro encapsulation waste treatment activities. CHPRC is working with WCH to evaluate the planned waste expected to be macro encapsulated at ERDF within the next 12 months. (Expected resumption of capability)

PROJECT BASELINE PERFORMANCE

Current Month (\$M)

WBS 013/RL-0013 Waste and Fuels Management Project	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
MLLW Treatment	0.0	0.0	0.0	0.0	0.0%	0.0	36%
TRU Waste	0.0	0.0	(0.3)	0.0	0.0%	0.3	0.0%
TRU Wst Facil Trans MinSafe	<u>0.0</u>	<u>0.0</u>	<u>0.1</u>	<u>0.0</u>	0.0%	<u>(0.1)</u>	0.0%
ARRA Total	0.0	0.0	(0.2)	0.0	0.0%	0.2	2484.5%
Base	<u>8.1</u>	<u>8.5</u>	<u>8.1</u>	<u>0.4</u>	4.8%	<u>0.5</u>	5.5%
Total	8.1	8.5	7.9	0.4	4.9%	0.7	7.9%

Numbers are rounded to the nearest \$0.1M

ARRA

Current Month (CM) Schedule Performance (+\$0.0M/+0.0%)

RL-0013 MLLW Treatment / RL-0013 TRU Waste/ RL-0013 TRU Waste Facility Transition to Min Safe
The favorable schedule variance is within threshold (completion of final MLLW treatment volumes).

CM Cost Performance (+\$0.2M/2484.5%)

RL-0013 MLLW Treatment / RL-0013 TRU Waste/ RL-0013 TRU Waste Facility Transition to Min Safe
The favorable cost variance is within threshold.

Base

CM Schedule Performance (+\$0.4M/+4.8%)

The favorable current period schedule variance is within threshold (accelerated Cs/Sr capsule Critical Decision (CD) - 0 activity – planned in 2015).

CM Cost Performance (+\$0.5M/+5.5%)

The favorable current period cost variance is within threshold.

Contract-to-Date (CTD) (\$M)

WBS 013/RL-0013 Waste and Fuels Management Project	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
MLLW Treatment	47.7	47.7	42.7	(0.0)	-0.0%	5.0	10.5%
TRU Waste	255.3	255.3	253.4	(0.0)	-0.0%	1.9	0.8%
TRU Wst Facil Tran MinSafe	<u>1.5</u>	<u>1.5</u>	<u>1.5</u>	<u>0.0</u>	0.0%	<u>0.1</u>	3.3%
ARRA Total	304.5	304.5	297.5	(0.0)	-0.0%	7.0	2.3%
Base	<u>368.3</u>	<u>368.2</u>	<u>373.0</u>	<u>(0.2)</u>	-0.0%	<u>(4.9)</u>	-1.3%
Total	672.9	672.7	670.5	(0.2)	-0.0%	2.2	0.3%

Numbers are rounded to the nearest \$0.1M

ARRA

CTD Schedule Performance (-\$0.0M/-0.0%)

RL-0013 MLLW Treatment – No variance – work scope is complete.

CTD Cost Performance (+\$7.0M/+2.3%)

The positive cost variance due to efficiencies in Transuranic Waste (TRU) Characterization and Shipping, TRU Repackaging, T Plant and Waste Receiving and Processing Facility (WRAP), Mixed Low Level Waste (MLLW) efficiencies created by treating waste at Energy Solutions (ES) - Clive rather than planned treatment at Perma-Fix Northwest (PFNW) due to a waiver received from the Department of Energy (DOE), Environmental Restoration Disposal Facility (ERDF) negotiated rate reduction with vendor for waste containers, partially offset by increased materials and labor costs in support of the Trench Face Retrieval and Characterization System (TFRCS), and increased resources for TRU Retrieval deteriorated waste containers, increased allocations for additional office space and other assessments as a result of allocations to Recovery Act expenditures.

Base

CTD Schedule Performance (-\$0.2M/-0.0%)

The negative CTD schedule variance is within threshold (CSB Documented Safety Analysis (DSA) development and Data Collection System (DCS) installation partially offset by acceleration of Cs/SR capsule dry storage CD-0 activity).

CTD Cost Performance (-\$4.9M/-1.3%)

The unfavorable CTD cost variance is the result of MSA assessments above plan, TRU Retrieval additional resources to deal with FY09 deteriorated containers and drum wedge issue, FY09 WRAP facility increased levels of corrective and preventive maintenance activities as a result of repack operations, increased labor and subcontractors support for Transportation and Packaging; partially offset by efficiencies in Liquid Effluent Facility (LEF), MLLW, TRU Disposition, TRU Repackaging, Interim Storage Area upgrades, Capsule Storage and Disposition, MWDT and lower G&A allocations.

Contract Performance Report Formats are provided in Appendix A and Appendix A-1.

Estimate at Completion (EAC)

The BAC and EAC include FY2009 through FY2018.

The changes in EAC from April to May, for both ARRA and Base, are within reporting thresholds.

FUNDS vs. SPEND FORECAST (\$M)

WBS 013/RL-0013 Waste and Fuels Management Project	FY2012		
	Projected Funding	Spending Forecast	Spend Variance
ARRA	4.6	4.6	0.0
Base	<u>85.2</u>	<u>84.8</u>	<u>0.4</u>
RL-0013 Total	89.8	89.4	0.4

Numbers are rounded to the nearest \$0.1M.

Funds/Variance Analysis

Funding includes FY2011 carryover and FY2012 new Budget Authority.

Critical Path Schedule

Critical path analysis can be provided upon request.

Baseline Change Requests

BCR-013-12-003R0 – Cesium & Strontium Capsules Mission Needs Statement

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
M-091-03F	Submit Annual Revision of TRUM and MLLW PMP to Ecology	TPA	6/30/12			On schedule
M-091-40U-T01	Retrieve a minimum of 250 cubic meters of CH RSW in FY 2012	TPA	9/30/12			To be missed. Activity currently not funded. Ltr in draft to DOE-RL.
M-091-46B-T01	Certify 300 cubic meters of small container CH TRUM waste	TPA	9/30/12			To be missed. Activity currently not funded. Ltr in draft to DOE-RL.
M-016-93B	Submit Implementation Workplan To Prepare TRU/TRUM Waste	TPA	12/31/12			On schedule
M-091-44P	Designate all RH TRUM Waste & Lrg Containers of CH TRUM Waste	TPA	12/31/12			Ahead of schedule
M-091-44Z-003	Annual PMM or Qtrly Notification of Cert of CH/RH TRUM	TPA	12/31/12			On schedule

SELF-PERFORMED WORK

The Section H. clause entitled, Self-Performed Work, is addressed in the Monthly Report Overview.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

Contract Section	Project	GFS/I	Status
CONTRACT			
J.12/C.2.3.6	PBS-13, Transuranic Waste Certification	WIPP provides shipping resources and manages the schedule for transportation of these containers to WIPP. The schedule is variable and the number of shipments is controlled by DOE-HQ on a complex-wide priority. Cost for shipment of TRU waste offsite is borne by the CBFO.	Ongoing (pending restart of WIPP Shipments)