

Section C

Solid Waste Stabilization and Disposition (RL-0013)



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Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

American Recovery and Reinvestment Act (ARRA)

No Legacy Mixed and Low-Level Waste (M/LLW) remains to be returned from Offsite processing facilities.

Base

The W&FMP continued maintaining facilities in a safe and compliant condition. Waste Receiving and Processing Facility (WRAP) completed the Quarterly Technical Safety Requirement (TSR) Combustible Loading Inspection. T Plant completed the annual TSR 291T High-Efficiency Particulate Air (HEPA) Filter Efficiency Verification. Central Waste Complex (CWC) and Low Level Burial Ground (LLBG) continued for mitigation of the 231-ZDR-11 concrete box in the expansion area, carport construction is 99 percent complete and completed development of the 231-ZDR-11 Option Study and associated schedules. Liquid Effluent Facilities (LEF) received 29 tankers (calendar year [CY] 131k gallons). 200A Treated Effluent Disposal Facility (TEDF) discharged 2.41 million gallons (CY 9.1M). Liquid Effluent Retention Facility (LERF) Basin 44 received 908k gallons of ERDF leachate (CY 2.0M). Canister Storage Building (CSB) loaded cold multi-canister overpack (MCO) H-017 into cask for shipment to K Basin. Waste Encapsulation and Storage Facility (WESF) completed 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 FY2012 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	0	N/A
Total Recordable Injuries	0	4	N/A
First Aid Cases	1	52	6/21/12 Employee was injured while pulling on a drum lid straining finger. Body part affected: Finger on left hand. (22806)
Near Misses	0	1	N/A

KEY ACCOMPLISHMENTS

ARRA

Lay-Up Activities

- ARRA scope is complete.

Base

13.01 Project Management

- Continued Project Management support for high priority projects.

13.02 Capsule Storage & Disposition

- Completed capsule relocation activities.
- Completed ID of capsules in 12 of 15 racks.
- Completed 3-year inspection of MCC-3 and MCC-5.
- Completed beryllium sampling of electrical equipment (all results were below detection limits).
- Completed Operational drill.
- Completed Radiation Indicating Transmitter/Radiation Element (RIT/RE) functional testing.

Canister Storage Building (CSB)

- Completed annual MCO Handling Machine (MHM) Load cell calibration
- Completed annual MHM interlock functional test
- Completed Annual MCO Cask vent tool (Tool-56) maintenance
- Completed Annual Operating area HVAC air handler and duct heater inspections
- Completed quarterly Gaseous Effluent Monitoring System (GEMS)-100 stack flow functional tests
- Completed annual Crane-12/14 (A-frame) inspections
- Completed replacement of sample cart instruments PT-724 and PI-743
- Replaced wheels on K-4 & K-8 security gates

13.07 WRAP

- Completed repack activities for drums 6, 7 and 8 in the process area
- Initiated the ninth and final drum, 50 percent complete
- Completed Waste Receiving and Processing Facility (WRAP) Quarterly Technical Safety Requirement (TSR) Combustible Loading Inspection
- Completed 50% of 2404WB floor repairs; scabbled area remains.
- Completed 1 TSR surveillance
- Completed 21 PM packages
- Completed 141 Rad Surveillances
- Completed 170 Operational Surveillances
- Transferred 13 Standard Waste Boxes (SWBs) and 3 drums of Transuranic Mixed waste (TRUM) from 2404 WB cleanup to CWC for storage

13.08 T-Plant

- Completed the 271T Freight Elevator 3rd Party inspection/maintenance
- Completed the annual TSR 291T High-Efficiency Particulate Air (HEPA) Filter Efficiency Verification

- Completed the annual TSR Differential Pressure checks on 291T HEPA Banks
- Completed facility modifications to the 221-T Decontamination shower drain
- Shipped total of 6 SWB(s) to Central Waste Complex (CWC)
- Completed seven Technical Safety Requirement (TSRs) surveillances.
- Completed 22 Preventive Maintenance (PMs) packages.
- Completed 294 Rad Operational Surveillances.
- Completed 189 Operational Surveillances.

13.09 Central Waste Complex (CWC)

- Completed six Technical Safety Requirement (TSRs) surveillances.
- Completed 19 Preventive Maintenance (PMs) packages.
- Completed 164 Rad Operational Surveillances.
- Completed 61 Operational Surveillances.
- Completed covering four Waste Boxes in the Expansion Area (12 of 25 FY12 planned boxes completed to date)
- Continued preparations for mitigation of the 231-ZDR-11 concrete box in the expansion area:
 - Construction of the “carport” is 99 percent complete
 - Completed development of 231-ZDR-11 Option Study and associated schedules
- Completed air-compressor re-work activities for two of three riser rooms, third riser room is 80 percent complete
- Shipments
 - Received three SWBs of TRUM from Plutonium Finishing Plant (PFP)
 - Received 13 SWBs and three drums of TRUM from WRAP
 - Received six SWBs of TRU waste from T Plant
 - Received 14 drums of TRU waste from Perma-Fix NorthWest (PFNW)
 - Received five new Standard Large Box 2 (SLB) shipping containers in CWC for storage on behalf of PFP
 - Received 25 empty reusable Type-7A shipping containers from PFNW and PFP
 - Shipped three drums of newly generated LLW to PFNW for processing

13.11 Liquid Effluent Facilities (LEF)

- Received 29 tankers (calendar year [CY] 131k gallons)
- Treated effluent to State-Approved Land Disposal Site: 1.11M gallons (CY 8.25M)
- 200A Treated Effluent Disposal Facility (TEDF) discharged 2.41M gallons (CY 9.1M)
- Received Environmental Restoration Disposal Facility (ERDF) leachate (908k gallons) at Liquid Effluent Retention Facility (LERF) Basin 44 (CY 2.0M) and (0.2M CY to Basin 43).
- Completed Recirculation of Basin 44 through SURGE in preparation for Basin 44 campaign
- Restarted Effluent Treatment Facility (ETF) on Basin 44
- Started receiving tankers of water from 323
- Continued receiving purged water tankers from BP-5
- Received 1100 gallons of 93% Sulfuric acid
- Maintenance activities:

- Removed, cleaned and replaced Thin Film Dryer (TFD) Vent Blower
- Completed Inspection of 20" evaporator boot
- Completed Inspection of 14" evaporator boot
- Repaired leaking flange gasket on 93% Sulfuric acid tank
- Completed rebuild and install of 2nd Reverse Osmosis feed pump 60F-P-1B
- Replaced 2nd Reverse Osmosis check valve
- Completed inspection of TFD Rotor with minor blade damage noted
- Completed rebuild and install of 1st Reverse Osmosis booster pump 60F-P-3B
- Repaired caustic supply valve AOV-65C-058 to the Secondary Waste Receiver Tanks (SWRT)
- Performed visual inspection of SWRT A
- Installed Fall Protection Handrail System on three Retention Transfer System (RTS) Tanks

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 20 Radiological and four operational surveillances.
- Received six shipments (totaling 15 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)
WSD-121: LERF Cover Fails	Perform inspection and radiological surveys to evaluate if LERF covers are degrading.			Biological contamination has been detected and may be associated with LERF Basin 44. This represents a trigger condition where this risk may be realized.

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	0.0%
TRU Waste	0.0	0.0	(0.0)	0.0	0.0%	(0.0)	0.0%
TRU Wst Facil Trans MinSafe	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	0.0%	<u>(0.0)</u>	0.0%
ARRA Total	0.0	0.0	0.0	0.0	0.0%	0.0	0.0%
Base	<u>6.2</u>	<u>6.2</u>	<u>5.3</u>	<u>0.0</u>	<u>0.1%</u>	<u>0.8</u>	<u>13.4%</u>
Total	6.2	6.2	5.3	0.0	0.1%	0.8	13.1%

Numbers are rounded to the nearest \$0.1M

ARRA

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

No variance – work scope is complete.

CM Cost Performance (+\$0.0M/+0.0%)

No variance – work scope is complete.

Base

CM Schedule Performance (+\$0.0M/+0.1%)

The favorable current period schedule variance is within threshold.

CM Cost Performance (+\$0.8M/+13.4%)

The favorable current period cost variance is primarily attributed to the Labor Rate Passback and was partially offset by increased overhead allocations.

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%	2.0	0.8%
TRU Wst Facil Tran MinSafe	<u>1.5</u>	<u>1.5</u>	<u>1.5</u>	<u>0.0</u>	<u>0.0%</u>	<u>0.1</u>	2.5%
ARRA Total	304.5	304.5	297.5	(0.0)	-0.0%	7.0	2.3%
Base	<u>374.5</u>	<u>374.3</u>	<u>378.4</u>	<u>(0.2)</u>	-0.0%	<u>(4.0)</u>	-1.1%
Total	679.0	678.8	675.9	(0.2)	-0.0%	3.0	0.4%

Numbers are rounded to the nearest \$0.1M

ARRA

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

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.

CTD Cost Performance (-\$4.0M/-1.1%)

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 May to June, 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>84.2</u>	<u>83.3</u>	<u>0.9</u>
RL-0013 Total	88.8	87.9	0.9

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

None identified.

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			Completed 6/12/12
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)