

Section C

Solid Waste Stabilization and Disposition (RL-0013)



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December 2011
CHPRC-2011-12, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

The Waste & Fuels Management Project (W&FMP) focused on delivering safe, compliant performance.

American Recovery and Reinvestment Act (ARRA)

Project layup activities continued. At Waste Receiving and Processing Facility (WRAP), completed 2404WB decontamination work and commenced tent removal; final floor epoxy and painting activities to follow. T Plant completed Pacific Northwest National Laboratory (PNNL) Assay of 256 100-gal suspect Transuranic Waste (TRU) compacted ('puck') drums to determine if TRU or Low-Level Waste (LLW) and commenced canyon closure activities including shut down of compactor and combustible load-out. TRU Retrieval Lay Up completed disassembly and offsite shipment of leased Real Time Radiography and Drum Warming Unit (DWU).

Base

The W&FMP continued maintaining facilities in a safe and compliant condition. WRAP completed 13 Technical Safety Requirements surveillances. T Plant completed the annual container and Dose to Curie (DE-Ci) inventory, waste container surveillances, Specific Administrative Control (SAC) surveillances and chemical inventory surveillances with no issues. Central Waste Complex (CWC)/Low Level Burial Ground (LLBG) and Mixed Waste Trench (MWT) shipped 65 TRU-Project dropout LLW waste packages from the CWC to Perma-Fix Northwest (PFNW) for final disposition. CWC also received 36 Standard Waste Boxes (SWB), 30 drums, and one IP-2 (209E Slab Tank) of transuranic waste, and 4 shipments of M/LLW into the Mixed Waste Disposal Units (total of 20 waste packages). Liquid Effluent Facilities (LEF) sent treated effluent to State-Approved Land Disposal Site: 3M gallons (CY 20M). 200A Treated Effluent Disposal Facility (TEDF) discharged 942k gallons (CY 14M). Canister Storage Building (CSB) completed Multi-Canister Overpack (MCO) MCO Handling Machine (MHM) seismic clamp shoe replacement and quarterly stack monitoring inspections. Waste Encapsulation and Storage Facility (WESF) terminated a successful "fix it now" effort; completing 22 items.

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	On schedule

TARGET ZERO PERFORMANCE

	Current Month	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	6	N/A
Total Recordable Injuries	0	12	N/A
First Aid Cases	4	88	12/1/11: Employee was lifting fresh air bottles out of bottle cart. Body part affected: back. (22532) 12/15/11: Employee was carrying equipment in bags to another facility. Body part affected: back. (22544) 12/18/11: Employee was checking emergency kits. Body part affected: hands. (22545) 12/29/11: Employee was scanning containers. Body part affected: shoulder (22592)

KEY ACCOMPLISHMENTS

ARRA

13.04 MLLW Treatment

- Completed treatment of all but two non-conforming waste containers (scheduled for April 2012).

13.05 TRU Retrieval Lay-Up Activities

- Completed disassembly and offsite shipment of leased RTR and Drum Warming Unit (DWU).

Base

13.01 Project Management

- Completed W&FMP FY2013-FY2018 Performance Measurement Baseline (PMB) submittal
- Continued Project Management support for high priority projects

13.02 Capsule Storage & Disposition

- Terminated a successful “fix-it-now” effort, completing 22 items
- Completed repair of Motor Control Center (MCC) #1

13.03 Canister Storage Building (CSB)

- Completed Multi-Canister Overpack (MCO) MCO Handling Machine (MHM) seismic clamp shoe replacement
- Completed quarterly stack monitoring inspections

13.07 WRAP

- Maintained the facility in a safe and compliant condition
- Completed 13 Technical Safety Requirements surveillances

13.08 T-Plant

- Maintained the facility in a safe and compliant condition

- Completed the annual container and Dose to Curie (DE-Ci) inventory, waste container surveillances, specific administrative control surveillances and chemical inventory surveillances with no issues.

13.09 Central Waste Complex (CWC)

- Shipped 65 TRU-Project dropout LLW waste packages from the CWC to Perma-Fix Northwest (PFNW) for final disposition.
- Received 36 Standard Waste Boxes (SWB), 30 drums and one IP-2 (209E Slab Tank) of transuranic waste.
- Received 4 shipments of M/LLW into the Mixed Waste Disposal Units (total of 20 waste packages).

13.11 Liquid Effluent Facilities (LEF)

- Received three tankers (calendar year [CY] 495k gallons)
- Treated effluent to State-Approved Land Disposal Site: 3M gallons (CY 20M)
- 200A Treated Effluent Disposal Facility (TEDF) discharged 942k gallons (CY 14M)
- Received Environmental Restoration Disposal Facility (ERDF) leachate (119k gallons) at Liquid Effluent Retention Facility (LERF) Basin 44 (CY 1.8M)
- Continued operating the 310 Retention Transfer System (RTS): CY 25 batches; 809k gallons
- Shipped 40 powder drums from Basin 44 to ERDF
- Maintenance activities:
 - Returned 2025E fire system maintenance riser to service
 - Completed replacement of Basin 43 recirculation line
 - Processed 23 Waste Sampling and Characterization Facility wastewater drums through the Secondary Treatment Train
 - Reprogrammed the Whelen Alarm System (performed by Radio Maintenance)
 - Initiated installation of pH probe in the clean-in-place system

13.12 Integrated Disposal Facility

- Completed all required inspections at the Integrated Disposal Facility

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

MAJOR ISSUES

No major issues to report this month.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk

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

Risk Title	Risk Strategy/Handling	Assessment		Comments
		Month	Trend	
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-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.
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 documented current status.
WSD-097: Major Equipment Failure at WRAP WSD-079: Major Equipment Failure - T Plant	Risk accepted without mitigation. Continue to maintain equipment in accordance with baseline PM/CM schedule.			Risks are unlikely.

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	0.4	0.1	0.2	(0.4)	-90.4	(0.2)	-485.2
TRU Waste	<u>0.7</u>	<u>1.1</u>	<u>0.2</u>	<u>0.4</u>	65.1	<u>1.0</u>	86.8
ARRA Total	1.1	1.2	0.4	0.0	5.6	0.8	66.9
Base	<u>7.5</u>	<u>7.4</u>	<u>7.1</u>	<u>(0.1)</u>	-1.9	<u>0.3</u>	3.7
Total	8.6	8.5	7.5	(0.1)	-0.9	1.1	12.3

Numbers are rounded to the nearest \$0.1M

ARRA

Current Month (CM) Schedule Performance (+\$0.0M/+5.6%)

RL-0013 MLLW Treatment / RL-0013 TRU Waste – The positive schedule variance is within threshold and is primarily due to schedule recovery for Layup activities partially offset by early completion of MLLW returns.

CM Cost Performance (+\$0.8M/+66.9%)

RL-0013 MLLW Treatment / RL-0013 TRU Waste – The favorable cost variance is primarily due to ARRA Layup schedule without commensurate costs, accruals reversed in December (no invoice or re-accrual made) and corrections of start-up anomalies from ARRA to base-funded work scope.

Base

CM Schedule Performance (-\$0.1M/-1.9%)

The unfavorable current period schedule variance is within threshold, however CSB Readiness Assessment activities show slightly behind schedule due to the level loading of resources, in addition, some engineering activities are behind due to resource availability (directed to higher priority activities).

CM Cost Performance (+\$0.3M/+3.7%)

The positive cost variance is within threshold and is primarily due to resources deferred to higher priority Layup activities and corrections of start-up anomalies from ARRA to base-funded work scope, MSA usage below plan, and a contract accrual error (reversal will be made in January).

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	<u>256.7</u>	<u>256.6</u>	<u>254.9</u>	<u>(0.1)</u>	0.0	<u>1.8</u>	0.7
ARRA Total	304.4	304.3	297.6	(0.1)	-0.0	6.8	2.2
Base	<u>332.7</u>	<u>331.9</u>	<u>338.7</u>	<u>(0.8)</u>	-0.3	<u>(6.9)</u>	-2.1
Total	637.1	636.2	636.3	(0.9)	-0.1	(0.1)	-0.0

Numbers are rounded to the nearest \$0.1M

ARRA

CTD Schedule Performance (-\$0.1M/-0.0%)

RL-0013 MLLW Treatment – The negative CTD schedule variance is within threshold.

CTD Cost Performance (+\$6.8M/+2.2%)

The positive cost variance due to efficiencies in TRU Characterization and Shipping, TRU Repackaging, T Plant and WRAP, Mixed Low Level Waste (MLLW) efficiencies created by treating waste at Energy Solutions (ES) - Clive rather than planned treatment at 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 (-\$0.8M/-0.3%)

Within Threshold - The negative variance is due to Canister Storage Building (CSB), WESF, and ETF engineering activities delayed due to resource availability (assigned to higher priority activities).

CTD Cost Performance (-\$6.9M/-2.1%)

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 November to December, 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	88.3	86.8	1.5
Total RL-0013	92.9	91.4	1.5

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 currently 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. The following table is a one year look ahead of commitments and TPA enforceable milestones and non-enforceable target due dates.

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comment
M-091-40T	Retrieve 2,000 Cubic Meters of CH RSW	TPA	9/30/11		9/30/11	Field work completed 8/10/11. Completion letter issued after 9/30/11. Completed: DOE-RL Letter 12-AMCP-0020 to Ecology and EPA dated 11/2/11 stated work was completed on 8/10/11.
M-091-46A	Certify 850 Cubic Meters of Small Container CH TRUM Waste	TPA	9/30/11		9/30/11	Field work completed 7/21/11. Completion letter issued after 9/30/11. Completed: DOE-RL Letter 12-AMCP-0007 to Ecology and EPA dated 10/17/11 documents that this milestone was completed on 7/27/11.

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comment
M-091-44Z-002	Min. Annual PMM or Qtrly Notification of Cert. of CH/RH TRUM	TPA	12/31/11			Completed: Email from M. Collins to R. Piippo, dated 10/13/11, indicates that DOE and Ecology have agreed to include, in the 12/8/11 M-91 PMM minutes, which Ecology was notified that TRUM waste was certified and shipped for disposal at WIPP in lieu of LDR treatment.
C-026-07G	Tritium Treatment Technology Developments to Ecology & EPA	TPA (commitment)	3/31/12			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)