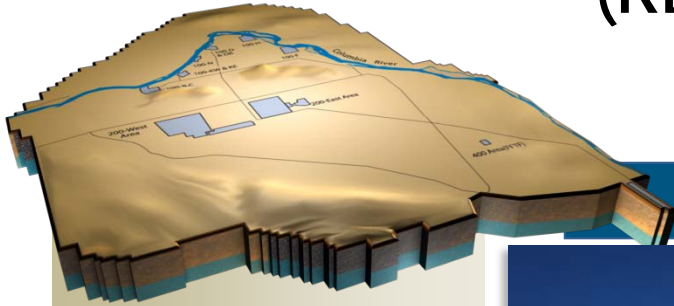


Section C

Solid Waste Stabilization and Disposition (RL-0013)



Monthly Performance Report

L.T. Blackford
Vice President and
Project Manager for
Waste and Fuels
Management Project



**3A Trench 17 Box
21 Removal and
Overpacking**

**3A Trench 17 Box
14 Excavation and
Preparation for
Removal**



February 2011
CHPRC-2011-02, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1



**12B Trench 17 Drum
Removal**

PROJECT SUMMARY

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

American Recovery and Reinvestment Act (ARRA)

Weekly and monthly Recovery Act reporting continued. Work continued on a “middle-ware” utility to provide an accessible, user friendly and comprehensive interface for waste inventory, forecast, and reporting data. Mixed/Low Level Waste (M/LLW): M-91-42 – shipped 23 m³ and completed 7 m³ during the month; M-91-43 - Shipped 16 m³ and completed 13 m³ during the month. Transuranic (TRU) Retrieval removed two, 3A Trench 17 Box 17 and 21 (14.2 m³); excavated, prepared and removed from 3A Trench 17 Box 14 (43.5 m³); removed seven drums (six remote handled [RH]) and nine boxes from 4B Trench 11 (43.0 m³).

Next Generation Retrieval excavated in 12B Trenches 17 and 27; removed and assayed the first four drums from Trench 17 and located first container in Trench 27.

TRU Repackaging supported the shipment of two Transuranic mixed (TRUM) gloveboxes out of the Plutonium Finishing Plant (PFP) to Perma-Fix Northwest (PFNW), TRU Disposition completed TRU Waste shipments to Idaho’s Advanced Mixed Waste Treatment Project (AMWTP) (total of 77) and continued shipments to Waste Isolation Pilot Project (three).

Base

The W&FMP continued maintaining facilities in a safe and compliant condition, remobilized for Waste Encapsulation & Storage Facility (WESF) roof upgrades and completed Multi-Canister Overpack (MCO) Cask #3 annual integrity test at the Canister Storage Building. T-Plant completed Beryllium training for 94 percent of operations staff and 100 percent of Radiation Control personnel. Liquid Effluent Facilities sent 2.0M gallons treated effluent to State-Approved Land Disposal Site and continued with Basin 44 Processing Campaign (processed 198K gallons).

EMS Objectives and Target Status

Objective #	Objective	Target	Due Date	Status
09-EMS-WFM-OB1-T1	Reduce the potential for releases from TRU Retrieval Waste repackaging activities in the low-level burial ground.	Implement a point-of-generation approach to waste management that minimized the transport and handling of wastes.	10/1/2011	On schedule
		No exceedances of permit conditions. Participate in readiness assessment and establish process to confirm permit levels have been met.	9/30/2010	Complete
10-EMS-WFM-OB2-T1	Reduce the levels of air pollution and increase the energy efficiency of WESF Plant heating and cooling operations.	Eliminate the use of the refrigerant R22.	2/26/2010	Complete
		Inactivate the fuel oil fired steam plant and replace with heat recovery chiller and electrical resistance heaters.	2/26/2010	Complete
10-EMS-WFM-OB3-T1	Reduce the generation of waste through implementation of pollution prevention practices.	Conduct a pollution prevention assessment of waste packaging and other operations at T-Plant to identify waste minimization opportunities.	9/30/2010	Complete

TARGET ZERO PERFORMANCE

	Current Month	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	4	N/A
Total Recordable Injuries	0	8	N/A
First Aid Cases	12	125	<p>(2/01/1011) Working in tent, excessive exhaust fumes made the employee's eyes water. (21737)</p> <p>(2/07/2011) Exhaust fumes in the tent at 126-headache. (21733)</p> <p>(2/10/2011) Exhaust fumes standing for about 2 hours morning and 2 hours afternoon near excavator. An employee got a headache and after leaving the area felt better, but could not get the smell out of nose. (21743)</p> <p>(2/11/2011) Employee was scratched with tie wire, between knuckles on right hand. (21726)</p> <p>(2/11/2011) Employee was exposed to diesel exhaust fumes. (21731)</p> <p>(2/11/2011) Smelled exhaust fumes inside tent at 12B while excavating and got a headache.(21734)</p> <p>(2/11/2011) Exhaust fumes over a couple of days working in the tent. (21735)</p> <p>(2/13/2011) diesel fumes in trench from trac-o caused headache (21730)</p> <p>(2/14/2011) Asthma attack from unknown chemical/substance at HAMMER - taken to ER. (21774)</p> <p>(2/17/2011) While attempting to enter a doorway, an individual was exiting from other side. As a result, employees finger was hit while reaching for door handle as door opened.(21771)</p> <p>(2/28/2011) Bending over to shred paper, employee hurt left side of lower back. (21786)</p> <p>(2/28/2011) Walking down the hall at 2025E, the employee's right knee snapped and felt sharp pain. (21797)</p>
Near-Misses	0	1	N/A

KEY ACCOMPLISHMENTS

ARRA

13.01 Project Management

- Completed weekly and monthly ARRA reporting
- Continued Project Management support for high priority projects
- Continued work on a “middleware” utility to provide an accessible, user friendly, and comprehensive interface for waste inventory, forecast, and reporting data

13.04 MLLW Treatment

- Completed the first shipment of sodium metal contaminated debris MLLW from the Central Waste Complex (CWC) to Impact Services located in Tennessee. Shipment comprised of 37 drums that originated at the Fast Flux Test Facility in the mid 1980s. Processing of this waste was initiated on February 23, 2011.

13.05 TRU Retrieval

- Excavated and removed last two 3A Trench 17 Boxes (17 and 21) (14.2 m³)
- Removed seven drums (six remote handled) and nine boxes from 4B Trench 11 (43.0 m³)
- Completed rodent contamination mitigation around 3A Trench 17 Boxes
- Excavated and prepared 3A Trench 17 Box 14 (43.5 m³) for removal
- Completed portable assay of 17 containers
- Completed reactivation of the Mobile Drum Venting System
- Next Generation Retrieval
 - Resolved diesel fumes safety concerns in the Weather Enclosure
 - Continued excavation in 12B Trenches 17 and 27; removed and assayed the first four drums from Trench 17 and located first container in Trench 27

13.06 TRU Repackaging

- Processed one parent drum and created two offspring drums
- Generated three drums from glovebag change outs
- Vented nine drums in 2706-T Building
- Repack
 - Repackaged twelve drums
 - Completed sampling of seven repack Beryllium drums for Negative Exposure Assessment
 - Responded to continuous air monitoring alarm during repack operation; initiated recovery plan
- RH/Large Package Repackaging
 - Initiated TRUM shipments to PFNW under the Master Contract
 - Size reduction of large-container TRUM waste packages shipped from CWC:
 - 254 m³ shipped to date (243 m³ repackaged to date)
 - Initiated nondestructive assay (NDA) of the repacked drums and boxes at PFNW
 - 81 m³ of M/LLW dropout waste generated
 - 42 m³ of TRU/M waste repackaged
- Supported shipment of two additional PFP TRU gloveboxes to PFNW for size reduction

13.07 Waste Receiving and Processing Facility (WRAP)

- Nondestructive examination (NDE): 337 drums (261 for Central Characterization Project [CCP])
- NDA: 542 drums (253 for CCP)
- Flammable Gas Analysis Sampling: 455 drums
- Continuing non-Waste Isolation Pilot Plant (WIPP) NDE/NDA Type E waste drums/0063 verifications
- More than 900 Beryllium samples taken in process area and support facilities: all less than detectable values
- High Energy Real Time Radiography (HE-RTR)
 - Completed Site Acceptance Testing
 - Completed final construction punch list items
 - Fire Marshall Occupancy Permit issued

13.08 T-Plant

- Received 3 containers from T-Plant
- 90-mil Liner Lid Vent Verification Noncompliance
 - Completed compensatory actions to release formal hold on processing activities
 - Formal hold remains in place on processing 55-gallon 216-Z-9 waste and all debris waste streams at this time
- Beryllium Program
 - 94 percent of remaining T-Plant Operations personnel and 100 percent of remaining T-Plant RadCon personnel are now cleared Beryllium Workers

13.15 TRU Disposition

- Completed AMWTP campaign – one current month
 - 77 inter-site shipments
 - 39 during WIPP's winter outage
 - 923 drums shipped
- Shipments to WIPP: Current Month total – three, total to date – 63
- Remote Handled Program
 - Memorandum of Agreement (MOA) approved
 - RH drum rings procurement progressing
 - RH drums co-located at WRAP
 - Program under evaluation by CCP/Carlsbad Field Office (CBFO) for balance of fiscal year (FY) 2011

Base**13.02 Capsule Storage & Disposition**

- WESF
 - Resumed upper roof upgrades
 - Began pool cell cleaning
 - Began capsule relocation activities
 - Resumed canyon maintenance activities
 - Began replacement of MO-232 roof

- WESF K1 & K3 Heating, Ventilation, and Air Conditioning Upgrades
 - Continued Conceptual Design Report (CDR) preparation
 - Performed project team peer review of CDR
 - Completed Statement of Work and issued request for quotation for follow-on Preliminary/Final Design phase
 - Continued revision to Project Execution Plan (PEP)
 - Completed development of the American Society of Mechanical Engineers Code on Nuclear Air and Gas Treatment (AG-1) Compliance Matrix
 - Submitted fire protection deluge equivalency/waiver to RL for approval

13.03 Canister Storage Building

- Completed MCO Cask #3 annual integrity test
- Initiated Nasatka Barrier hydraulic cylinder repair

13.07 Waste Receiving and Processing Facility (WRAP)

- Maintained the facility in a safe and compliant condition

13.09 Central Waste Complex (CWC)

- Prepared for receipt of U-Plant Cell 30, TK-D-10
- Fire Systems: Supported Fire Systems preventive maintenance packages

13.11 Liquid Effluent Facilities (LEF)

- Received 87 tankers (184K gallons)
- Treated effluent to State-Approved Land Disposal Site: 2.0M gallons
- 200A Treated Effluent Disposal Facility discharged 1M gallons
- Received ERDF leachate (198K gallons) at Liquid Effluent Retention Facility Basin 44
- Continued operating the 300 Area Retention Transfer System (six batches/181K gallons)
- Received 13 drums of Waste Sampling and Characterization Facility wastewater
- Processed 22 drums of Waste Sampling and Characterization Facility wastewater through the secondary treatment train
- Loaded and shipped 40 powder drums to ERDF
- Continued with Basin 43 Processing Campaign (processed 1.75M gallons)
- Completed monthly Effluent Treatment Facility (ETF) radiological process samples to support technical

13.12 Integrated Disposal Facility

- Completed all required inspections at the Integrated Disposal Facility

13.16 Off Site Spent Nuclear Fuel Disposition

- Maintained the facility in a safe and compliant condition

13.21 Mixed Waste Disposal Trenches

- Maintained the facility in a safe and compliant condition

MAJOR ISSUES

Issue – Avoid falling behind recovery plan to retrieve 2,500 m³ by September 30, 2011

Corrective Action – Implement recovery plan: Using two to three overtime shifts/week to recover schedule slip, retrieval established as a priority resulting in obtaining required outside resources, implemented enhanced Production Control resulting in better coordination of resources, obtained additional Field Work Supervisors and Radiological Control Technicians from T-Plant reducing impacts from critical resource shortages, obtained ground thawing equipment and thermal blankets to mitigate effects of impacts of frozen ground to hand excavation, early purchase of material required to remove and overpack waste containers, and implemented actions required to remove drums from 4B Trench 7.

Status – Performance Measurement Baseline and Performance Based Incentive milestones could be at risk.







Issue – TRUPACT II drum feed exhausted by July 2011; U. S Environmental Protection Agency (EPA) approval to CCP to ship Solid Waste Boxes required by June 2011















Corrective Action – EPA Tier 1 approval by June 2011

Status – CCP schedule supports approval timeline if no issues with EPA Tier 1 audit

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-007: TRU Retrieval Complexities	Accelerate "next generation" retrieval			Significant container degradation encountered; Draw down of MR implemented March 2011.
WSD-008: Classified Waste Storage Limitations	Implement mobile shredding; evaluate establishing secure storage at CWC or other location			Questionable mobile shredding feasibility, working with NNSA to define path forward
WSD-013A: TRU Waste Volumes or Characteristics - Retrieval	Implement in-trench assaying as part of Next Generation retrieval and explore stabilization techniques			Encountering issues regarding unexpected waste characteristics; Implementing Trench Face Retrieval and Characterization capabilities
WSD-013B: TRU Waste Volumes or Characteristics - Processing	Use ARRA funds to add additional process lines			No issues regarding unexpected waste volumes or characteristics experienced to date
WSD-018: CSB Major Equipment Failure	Risk accepted without mitigation			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 greater than projected due to ARRA work acceleration
WSD-043: Orphan Wastes	Obtain regulatory relief for "no path forward" wastes			Working to identify treatment options for all waste currently in storage. Issued "No Path Forward" waste and German log alternatives analysis. Annual update of M-91 PMP will document current status

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	1.4	0.4	0.5	(1.0)	-74.1	(0.1)	-27.2
TRU Waste	<u>12.0</u>	<u>10.0</u>	<u>13.1</u>	<u>(2.0)</u>	-16.7	<u>(3.1)</u>	-30.4
ARRA Total	13.5	10.4	13.6	(3.1)	-22.7	(3.2)	-30.3
Base	<u>2.6</u>	<u>2.6</u>	<u>2.2</u>	<u>0.08</u>	3.1	<u>0.4</u>	14.9
Total	16.0	13.0	15.8	(3.0)	-18.6	(2.8)	-21.2

ARRA

CM Schedule Performance (-\$3.1M/-22.7%)

RL-0013 MLLW Treatment – Mixed Low Level Waste (MLLW) shipments delayed due to receiving facility inability to receive large containers pending permit/building modifications and delay in receipt of M-91-42 waste feed from TRU Retrieval.

RL-0013 TRU Waste – TRU Retrieval delays due to biological vector contamination issues, planned TRUM for RH/Large Package Capability processing achieved in prior period, TRU-Pact II shipping delayed by weather, partially offset by T-Plant Repack realigning resources and small package projected repack volumes to reflect reassignment to PFP.

CM Cost Performance (-\$3.2M/-30.3%)

RL-0013 MLLW Treatment – MLLW continued costs without commensurate performance.

RL-0013 TRU Waste – TRU Retrieval incurring costs without commensurate performance due to biological vector contamination issues and adverse weather, coupled with continued cost overruns for Trench Face Retrieval and Characterization System (TFRCS) site prep work, T-Plant Repack incurred costs without commensurate performance due to 216-Z9 drum rigid liner issues, partially offset by RH/Large Package Commercial repackaging delayed receipt of costs, TRU Characterization and Shipping incurring labor costs without commensurate performance due to weather delays and HE-RTR delayed start, and higher G&A than planned.

Base

CM Schedule Performance (+\$0.08M/+3.1%)

Within Threshold: WESF seismic analysis duration shortened by subcontractor familiarization with the facility, which also reduced training requirements, coupled with schedule recovery for CDR for K1/K3 upgrades; partially offset by delays in Canister Storage Building due to resources assigned to higher priority projects.

CM Cost Performance (+\$0.4M/+14.9%)

Lower overhead allocations, schedule recovery for WESF upgrade CDR work without commensurate costs, coupled with efficiencies in WESF seismic analysis, partially offset by increased assessments, Project Management increased for Transportation and Packaging activities, CWC increased costs for Fire System/Suppressant issues.

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 (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Variance at Completion (VAC)
MLLW Treatment	38.1	34.7	33.2	(3.4)	-9.0	1.4	4.1	47.8	45.7	2.1
TRU Waste	<u>160.3</u>	<u>158.0</u>	<u>161.9</u>	(2.3)	-1.4	(3.9)	-2.5	<u>246.3</u>	<u>249.4</u>	(3.1)
ARRA Total	198.4	192.7	195.1	(5.7)	-2.9	(2.4)	-1.3	294.1	295.1	(1.0)
Base	<u>266.1</u>	<u>264.0</u>	<u>271.0</u>	(2.1)	-0.8	(7.0)	-2.6	<u>1,624.9</u>	<u>1,552.1</u>	<u>72.7</u>
Total	464.5	456.6	466.1	(7.9)	-1.7	(9.4)	-2.1	1,919.0	1,847.3	71.7

Numbers are rounded to the nearest \$0.1M

ARRA

CTD Schedule Performance (-\$5.7M/-2.9%)

RL-0013 MLLW Treatment – Mixed Low Level Waste (MLLW) shipments delayed due to receiving facility's inability to accept extra-large sized waste shipments pending permit/building modification, internal/external review for approval of tie-down analysis, delay in shipments pending approval of Contaminated Equipment - Special Packaging Authorization (recently approved), and delay in receipt of M-91-42 waste feed from TRU Retrieval; partially offset by 435.1 Compliance Waste processing being achieved ahead of schedule.

RL-0013 TRU Waste – TRU Retrieval delays due to biological vector contamination issues, adverse weather conditions, and lack of container shipping authorizations; temporary suspension of T-Plant repack operations due to Beryllium program implementation and drum lid issue recovery actions, partially offset by accelerated RH/Large Package Commercial Repack and TRU Characterization.

CTD Cost Performance (-\$2.4M/-1.3%)

RL-0013 MLLW Treatment – Mixed Low Level Waste costs below plan due to efficiencies created by treating waste at Energy Solution (ES) - Clive rather than planned treatment at PFNW due to a waiver received from DOE-HQ, decreased operational costs at CWC and efficiencies in planned Large Type A PFNW shipments; partially offset by higher subcontractor costs for the ETF Containment Berm Repairs

RL-0013 – TRU Waste – Increased labor and material costs in support of the TFRCS, coupled with increased material, support and management costs for TRU Retrieval deteriorated waste containers, increased allocation for additional office space and other assessments as a result of increased Recovery Act Expenditures; partially offset by efficiencies in TRU Characterization and Shipping, T-Plant, WRAP, and Project Management, lower overhead allocations.

Base

CTD Schedule Performance (-\$2.1M/-0.8%)

ETF procurements delayed by vendor negotiations (currently on order), Canister Storage Building engineering activities delayed due to resource availability (assigned to higher priority activities), delayed start of WESF K1/K3 upgrades CDR due to earlier required functional design criteria and alternative analysis review, coupled with previously delayed WESF roof upgrades due to enhanced safety practices and work management requirements, delayed Next Generation TRU Retrieval power procurement due to delayed Site Prep; partially offset by early completion of WRAP HEPA filter replacement (scheduled for FY2013).

CTD Cost Performance (-\$7.0M/-2.6%)

Increased assessments above plan, TRU Retrieval additional resources to deal with the deteriorated containers, FY2009 WRAP facility incurred increased levels of corrective and preventive maintenance activities as a result of repack operations, partially offset by efficiencies in LEF, MLLW, TRU Disposition, TRU Repackaging, Interim Storage Area upgrades, Mixed Waste Disposal Trenches, and lower General & Administrative allocations.

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

FUNDS vs. SPEND FORECAST (\$M)

WBS 013/RL-0013 Waste and Fuels Management Project	FY2011		
	Projected Funding	Spending Forecast	Spend Variance
ARRA	162.5	160.0	2.5
Base	90.7	84.4	6.2

Numbers are rounded to the nearest \$0.1M.

Funds/Variance Analysis

Funding includes FY2010 carryover and FY2011 new Budget Authority. The variances reflect an approved realignment of ARRA and Base work scope that was implemented in February.

Critical Path Schedule

Critical path analysis can be provided upon request.

Estimate at Completion (EAC)

The BAC and EAC now include FY2009 through FY2018.

Baseline Change Requests

BCRA-PRC-11-023R0, General Administrative & FOC Changes for February 2011

BCR-PRC-11-020R0, Align FY11 PMB Scope to RL Priorities

MILESTONE STATUS

The Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) 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 PRC Baseline Revision 2 Update, implemented in September 2010, defines CHPRC planning with respect to Tri-Party Agreement milestones. The following table is a one year look ahead of key milestones.

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/Comment
C-026-07F	Tritium Treatment Technology Developments to Ecology and EPA	TPA (commitment)	3/31/11		3/9/10	On Schedule
M-091-03E	Submit Annual Revision of TRUM and MLLW PMP to Ecology	TPA	6/30/11			On Schedule
M-091-03D-02	Submit Revision of PMP for Disposition of No-Path-Forward Waste	TPA	6/30/11			On Schedule
M-091-40T	Retrieve 2,000 Cubic Meters of CH retrievably-stored waste	TPA	9/30/11			On Schedule
M-091-46A	Certify 850 Cubic Meters of Small Container CH TRUM Waste	TPA	9/30/11			On Schedule
M-091-46G	Complete Offsite Shipment of 1,000 Cubic Meters of Small container CH TRUM	TPA	9/30/11			On Schedule
M-091-44Z-002	Min. Annual PMM or Qtrly Notification of Cert. of CH/RH TRUM	TPA	12/31/11			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