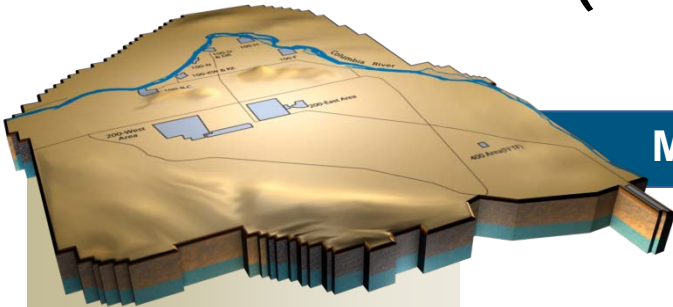


Section C

Solid Waste Stabilization and Disposition (RL-0013)



Monthly Performance Report

**EX-USS-South
Carolina RC
near Cable
Bridge**



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Management Project

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March 2010
DOE/RL-2008-69, Rev. 17
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1



**EX-USS-South
Carolina RC at
Trench 94**

**The current truck
fleet at the Container
Maintenance Facility
consists of both new
and leased trucks**



PROJECT SUMMARY

The Waste and Fuels Management Project (WFMP) focused on delivering safe, compliant performance.

American Recovery and Reinvestment Act (ARRA)

Weekly and monthly Recovery Act Reporting continued. Shipped 27m³ M/LLW and completed 47.0m³ of M/LLW waste during the month. TRU Retrieval developed draft 4B Trench 11 Recovery Plan to gather radiological and Industrial Hygiene data (SUMMA canister samples) from site of 2/4/10 event and provide basis to move the exclusion area to the trench boundary. Next Generation Retrieval (NGR) received the ANTECH Neutron Assay trailer and equipment. Alpha Caisson Retrieval conducted an optimization session and identified potential savings associated with eliminating one shielded transfer container loading station, a drum carousel, and using a single sorting station. TRU Project repackaged 107 TRU containers, shipped 108 containers, and received 161 containers at T Plant. The Waste Receiving and Processing Facility (WRAP) completed non-destructive examination (NDE) for 343 drums and 253 non-destructive assay (NDA) drums. The Environmental Restoration Disposal Facility (ERDF) container maintenance facility completed construction and turned the facility over to operations. In addition, ten of the 14 new roll-on/roll-off-style trucks for transporting containers have arrived on site. The mixed waste disposal trenches received ten offsite shipments (43 containers) and shipped one leachate Beall tanker to the Effluent Treatment Facility (ETF).

Base

The WFMP continued maintaining facilities in a safe and compliant condition. The Waste Encapsulation and Storage Facility (WESF) continued support to Energy Savings Performance Contract construction demolition and upgrade activities. The Canister Storage Building completed annual inspection of Gaseous Effluent Monitoring System annubar. The Central Waste Complex (CWC) received 17 on-site transfers (702 containers), six off-site shipments (six containers), shipped six off-site shipments (61 containers), and 19 on-site transfers (728 containers). Low Level Waste Burial Grounds (LLBG) received the EX-USS South Carolina (Plant 2) Reactor Compartment from the Port of Benton to Trench 94. The 200 Area Treated Effluent Disposal Facility (TEDF) discharged 2.0M gallons. Slightly Irradiated Fuel Project issued a request for Proposal for Project W-105, Interim Storage Cask Pad #3 (Container Restraint System). The Mixed Waste Disposal Trenches completed the back fill of Trench 8.

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 Grounds.	Implement a point-of-generation approach to waste management that minimized the transport and handling of wastes.	10/1/11	On schedule
		No exceedances of permit conditions. Participate in readiness assessment and establish process to confirm permit levels have been met.	9/30/2010	On schedule
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	Behind schedule ECD March 31, 2010
		Inactivate the fuel oil fired steam plant and replace with heat recovery chiller and electrical resistance heaters.	2/26/2010	Complete August 2009
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.	3/30/2010	On schedule

TARGET ZERO PERFORMANCE

	CM Quantity	FYTD Quantity	Comment
Days Away, Restricted or Transferred	0	2	N/A
Total Recordable Injuries	0	2	N/A
First Aid Cases	7	24	<p>3/10/10 - M&EC maintenance employee in 2620 shop felt a sharp stinging pain to the left forearm. Transported o AMH for suspected insect bite. Notifications were made. Employee was treated and returned to work without restrictions. (20770)</p> <p>3/09/10 - While exiting from the area, the NCO bumped right shin on the edge of the abrasive grating. The NCO determined the shin was going to be OK and did not give it more thought. During the following weekend the NCO noted it was getting worse and self treated. On Monday 3/15/10 the NCO reported injury to management. Employee was taken to AMH, examined and released to return to work with no restrictions. (20772)</p> <p>3/10/10 – Employee’s knee popped and became painful when bending over and reaching for an object. (20775)</p> <p>3/16/10 - ETF Pipefitter reported minor scratches on forearms after working on boiler drain valve near/on diamond plate surface. Reported to AMH as precautionary, provided first aid and returned to work without restrictions. (20778)</p> <p>3/22/10 - NCO at the WRAP facility reported a small bug bite on upper chest. Employee was transported to AMH for evaluation and returned to work with no restrictions. (20788)</p> <p>3/31/10 - A WRAP NCO reported wrist pain to their supervisor prior to work assignments. The employee reported experiencing slight discomfort on 3/30/10 during drum movement activities. The individual was escorted to 200W AMH for evaluation. The employee returned to work without restriction. (20814)</p> <p>3/31/10 - Employee received a scrape from a bungee cord while tarping a RO/RO container. Manager and employee agreed to self treat. (20825)</p>
Near-Misses	0	0	N/A

KEY ACCOMPLISHMENTS

ARRA

13.01 Project Management

- Training continued for the ARRA funded staff
- Continuing weekly and monthly ARRA reporting

13.04 Mixed Low Level Waste (MLLW) Treatment

- Shipped 27m³ of ARRA funded MLLW to treatment facilities, and completed 47m³
- The Site Specific LDR Variance for the “P015 Drum” was issued for 21-day public comment by the WDOE
- M-91-42 TPA:
 - 14.2m³ shipped and 46.0m³ completed during month
 - 8,158m³ shipped and 8,028m³ completed since January 2003 (Base & ARRA)
- M-91-43 TPA:
 - 13.6m³ shipped and 5.2m³ completed during month
 - 707m³ shipped and 667m³ completed since January 2003 (Base & ARRA)

13.05 TRU Retrieval

- Continued work on Retrieval Corrective Action Plan to address hazard identification & control, and event response improvements.
 - Revised existing and created new procedures
 - Revised existing work packages for 3A Trench 17 container removal
 - Completed mercury sampling of 3A Trench 17 Boxes 80 & 82
 - Performed emergency preparedness drills and off normal condition drills
 - Conducted training on new/revised procedures and techniques
- Resolved installation issues and received occupancy permit for new 4B/4C restroom facility MO2323
- Developed draft 4B Trench 11 Recovery Plan to gather radiological and Industrial Hygiene data (SUMMA canister samples) from site of 2/4/10 event and provide basis to move the exclusion area to the trench boundary
- Next Generation Retrieval (NGR)
 - Received the ANTECH Neutron Assay trailer and equipment
 - Issued the Functions and Requirements Document and Rev. 1 to the Trench Face Process System (TFPS) Requirements Document
- Alpha Caisson Retrieval
 - Completed Statement of Work (SOW) for Brokk procurement (in route for approval)
 - Initiated design of the Waste Processing System with AREVA
 - Initiated formal acceptable knowledge (AK) development as joint effort (Waste Services and TRU disposition); combines site and WIPP requirements
 - Conducted optimization session; potential savings identified by eliminating one shielded transfer container loading station, one drum carousel, and maintaining a single sorting station

13.06 TRU Repackaging

- Completed repairs to the Empty Drum Compactor and compacted 107 containers
- Shipped 108 containers from T Plant
- Received 161 containers to T Plant
- Shipped 26 LLW drums to ERDF
- Shipped one empty roll off box and two Connex boxes to ERDF

13.07 Waste Receiving and Processing Facility (WRAP)

- Non-destructive examination (NDE) 343 drums
- Non-destructive assay (NDA) 253 Non-WIPP drums
- Completed NDA Calibration and Calibration Verification for CCP
- Continued OJT/OJE for TRUPACT II, NDE, NDA, Shipping/Receiving for nuclear chemical operators (NCOs)
- Commenced new CAM installation in Repack Process Area

13.10 ERDF Additional Capabilities

- Initiated Management Assessment of maintenance facility operations on March 29
 - The objective of the assessment was to evaluate the effectiveness of the program and processes used to establish safe and compliant operations at the Maintenance Facility
 - The assessors evaluated the operational activities as well as Environmental Protection, Safety, Radiological Protection, Waste Management, Training, and Emergency Preparedness
- Ten of the 14 roll-off trucks are onsite

13.15 TRU Disposition

- Hanford TRU Program Closeout surveillance completed - no issues
 - ~ 800 boxes of records ready for transfer to WIPP records
 - All records scheduled for shipment to WIPP records holding
- CCP Support:
 - Three CCP Idaho Process Knowledge (PK) documents reviewed
 - 1034 Idaho drum data sheets through Public Release process
 - All certifiable drum datasheets are cleared, or in the process of being cleared by MSA

13.21 Mixed Waste Disposal Trenches

- Shipped one leachate Beall tanker to ETF
- Received ten offsite shipments, 43 containers

Base

13.02 Capsule Storage & Disposition

- Waste Encapsulation and Storage Facility (WESF)
 - Continued support to Energy Savings Performance Contract construction demolition and upgrade activities
 - Completed replacement of the Pool Cell Ion Exchange (IX) resin

13.03 Canister Storage Building

- Completed vendor certification of Multi-Canister Overpack (MCO) Handling Machine (MHM) fall protection system
- Completed initial instructor qualification on MHM Fall Protection practical
- Completed annual inspection of Gaseous Effluent Monitoring System annubar
- Completed annual stack monitoring inspection and calibration
- Completed annual integrity testing on MCO Transport Casks #1 & #3

13.07 Waste Receiving and Processing Facility (WRAP)

- Maintained the facility in a safe and compliant condition

13.08 T Plant

- Maintained the facility in a safe and compliant condition

13.09 Central Waste Complex (CWC)

- Completed six off-site shipments, 61 containers
- Completed 19 on-site transfers, 728 containers
- Received 17 on-site transfers, 702 containers
- Received six off-site shipments, six containers

- Completed AREVA assay campaign of seven waste containers (boxes), including one that required a critical lift plan, in the Expansion Area.
- CWC worked three swing shifts to accept road closure shipments from offsite generators. Worked one swing shift to perform recovery plan for corroded filter on a drum
- Low Level Waste Burial Grounds (LLBG)
 - 218-W-3AE – Completed the back fill of Trench 8 and 70% complete with the filling of Trench 16
 - 218-W-3AE – The rail car with the Navy Core Basket shipping device was returned by rail on 3/16
 - 218-E-12B – Received the EX-USS South Carolina (Plant 2) Reactor Compartment from the Port of Benton to Trench 94 on 3/28 and placed in final disposition on 3/30

13.11 Liquid Effluent Facilities

- Received (March) 113 tankers; (172K gallons)
- Treated (March) 2.6M gallons
- 200A Treated Effluent Disposal Facility (TEDF) discharged (March) 2.0M gallons
- Received ERDF leachate (~100,000 gallons) at LERF Basin 44
- Shipped 80 powder drums to the Environmental Restoration Disposal Facility
- Received 4 drums of Waste Sampling and Characterization Facility wastewater
- Maintenance activities
 - Supported installation of new PC5000 Leak Detection System (WRPS ARRA funded)
 - Repaired air operating valves on Ion Exchange Polisher A
 - Replaced failed valves on evaporator boiler
 - Repaired and replaced air vacuum relief valve on groundwater line at Manhole TL-3
 - Changed out vessel off-gas carbon adsorbers
 - Replaced ultra violet oxidation ruptured disc
 - Repaired customer waste drum pump
 - Initiated repairs to Pump Station #3, Pump 60I-P-A1
 - Initiated installation of scaffold to repair plugged line on concentrate loop
 - Initiated repairs to chemical addition pumps 65C-P-8 & 65C-P-9
- 310/340 Facilities
 - Completed Operability Acceptance Testing; working punch list items
 - Operating the Retention Transfer System (RTS); 12 batches discharged to City of Richland
 - Continued performing preventive maintenance (PM) activities at 310/340 for systems that will remain active after turnover (HVAC, fire, and compressed air)

13.12 Integrated Disposal Facility

- Maintained the facility in a safe and compliant condition

13.16 Off Site Spent Nuclear Fuel (SNF) Disposition

- Slightly Irradiated Fuel (SIF)
 - Construction Request for Proposal for Project W-105, *Interim Storage Cask Pad #3 (Container Restraint System)*, went out for bid 3/22/10
 - Pre-bid walk down was held 3/31/10 with the four interested contractors

13.21 Mixed Waste Disposal Trenches

- Maintained the trenches in a safe and compliant condition

MAJOR ISSUES

Issue Statement –RL determined Trench Face Processing System is Major Modification to Low-Level Burial Grounds

Corrective Actions – Receive RL approval of Safety Design Strategy

Status – Additional documents required and potential 6-month schedule impact due to contracted RL review durations

Issue Statement – Completion of April milestone for NGR start-up in 12B is at risk.

Corrective Actions – Develop critical path startup schedule (complete). Realign resources and update milestone if required (April 2010).

Status – Delay impacts achieving planned retrieval volumes.

Issue Statement – Retrieval Operations stand-down was directed due to week of 2/1/10 events in 4B Trench 11.

Corrective Actions – Develop Retrieval Corrective Action Plan (CAP).

Status – Excavation and removal activities on hold until hazard identification & control, and event response improvements have been completed which impacts retrieval volume targets and milestones.

Issue Statement – NGR Trench Face Process System regulatory strategy and containment tent exhauster Notice of Construction (NOC) permit are not complete.

Corrective Actions – Develop path-forward for regulatory strategy with Environmental Compliance & Ecology (February 2010). Determine if exhauster will be “post-startup” item. Submit NOC changes to Environmental Compliance. Formally submit NOC to RL for transmittal to WDOH (April 2010).

Status – Regulatory strategy could delay startup schedule. NOC is needed to initiate exhauster procurement and could impact startup schedule; exhauster not available until Fall 2010.

Issue Statement – Contract issues with AREVA delayed start of preliminary design for Alpha Caisson Project Waste Processing System.

Corrective Actions – Evaluate schedule crash/fast-track options to not impact critical path for Project (October 2010).

Status – Potential 4-week Project schedule impact.

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 Contamination Levels	Accelerate "next generation" retrieval	●	↔	No near-term impacts
WSD-008: Classified Waste Storage limitations	Implement mobile shredding; evaluate establishing secure storage at CWC or other location	●	↔	Researching mobile shredding feasibility
WSD-013A: TRU Waste Volumes or Characteristics - Retrieval	Implement in-trench assaying as part of Next Generation retrieval	●	↓	Encountering issues regarding unexpected waste volumes/characteristics
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; reclassified as Unassigned Risk
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
PRC-042: Resource Availability	Evaluate onsite posting of additional positions, substitution of less radiologically intensive work in lieu of currently scheduled higher risk work, consolidating work teams/work areas, etc. Conduct job fairs; contract with alternate resource providers; develop training programs and work with local educational facilities and union halls to train required job specialties; establish company-wide prioritization for resource assignments	●	↑	RCT shortage will impact TRU retrieval; teamster shortage may temporarily impact waste shipments to ERDF. RCT Hired and in training. Teamsters hired and in training.
Retrieval Area Issues	Potential to impact project scope, schedule and cost as a result of issues identified outside the RS burial grounds.	●	↑	Issues with the Non-RS burial grounds resolved.

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 (%)
ARRA	9.6	7.5	10.3	(2.1)	-22.0	(2.8)	-37.2
Base	<u>7.3</u>	<u>7.0</u>	<u>8.1</u>	<u>(0.4)</u>	-4.9	<u>(1.2)</u>	-16.6
Total	16.9	14.4	18.3	(2.5)	-1.6	(3.9)	-27.3

Numbers are rounded to the nearest \$0.1M.

ARRA

CM Schedule Performance (-\$2.1M/-22.0%)

RL-0013 MLLW Treatment – Within Reporting Thresholds

RL-0013 TRU Waste – Continued delayed progress in transuranic (TRU) Retrieve and Next Generation TRU Retrieval (NGR) due to recovery actions for unknown object and upset conditions, couple with understatements in performance for NGR staffing training, and, delays in the initiation of full CCP characterization.

CM Cost Performance (-\$2.8M/-37.2%)

RL-0013 MLLW Treatment – Within Reporting Thresholds

RL-0013 TRU Waste – Continuing to incur costs without making progress in TRU Retrieval and Next Generation TRU Retrieval due to recovery actions for unknown object and upset conditions; and, a cost transfer from Base to ARRA T-Plant Base Ops, and delays in the initiation of full CCP characterization.

Base

CM Schedule Performance (-\$0.4M/-4.9%)

Within Threshold, however, delays in TRU Retrieval long-term box storage (due to resource availability and delay in polyurea startup); partially offset by the completion of W-5 legacy waste originally planned in FY09.

CM Cost Performance (-\$1.2M/-16.6%)

G&A/Direct Distributable/assessments in excess of plan; delay in the receipt of TRU Retrieval BROKK excavator cost and capital equipment (trailer/grader) in the Central Waste Complex (CWC), (performance claimed in prior period); and, continued use of Mission Support Contract (MSC) services above plan (training and fleet); partially offset by a cost correction from Base (T-Plant FY09 Base Operations) to ARRA (T-Plant Recovery Act Base Operations).

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)
ARRA	86.3	79.7	78.0	(6.6)	-7.7	1.7	2.1	299.3	290.3	9.0
Base	191.8	188.5	185.5	(3.2)	-1.7	3.1	1.6	1,568.3	1,559.7	8.6
Total	278.1	268.3	263.5	(9.8)	-3.5	4.8	1.8	1,867.7	1,850.1	17.6

Numbers are rounded to the nearest \$0.1M.

ARRA

CTD Schedule Performance (+\$.6M/-7.7%)

RL-13 MLLW Treatment – Within Reporting Thresholds.

RL-0013 TRU Waste – Continued delayed progress in TRU Retrieval and Next Generation TRU Retrieval due to recovery actions for unknown object and upset conditions; and, coupled with understated performance for Next performed in series versus parallel.

CTD Cost Performance (+\$4.4M/+2.1%)

RL-0013 MLLW Treatment – Costs for waste treatment are below plan due to efficiencies created by treating waste at ES-Clive rather than planned treatment at Perma-Fix Northwest (due to a waiver received from DOE); and, ERDF super dumps received below planned costs.

RL-0013 TRU Waste – Continued to incur costs without making TRU Retrieval progress; and, increased allocation for additional office space and Project Services as a result of increased Recovery Act expenditures; partially offset by a delay in hiring/training for TRU Characterization & Shipping without impacting performance, and decreased G&A allocations.

Base

CTD Schedule Performance (-\$3.2M/-1.7%)

Delay in Next Generation Retrieval for TRU waste procurements, long term box storage remediation, an understatement in performance for Next Generation Retrieval staff training, and site preparation being performed in series versus parallel; and, delay in Waste Encapsulation and Storage Facility (WESF) roof upgrade pending weather improvements.

CTD Cost Performance (+\$3.1M/+1.6%)

Efficiencies in MLLW (due to treating waste at ES-Clive rather than planned treatment at PFNW (due to a waiver received from DOE), efficiencies in Liquid Effluent Facilities, Slightly Irradiated Fuel (SIF) preparation/receipt, and TRU Repackaging, along with decreased allocation for G&A/Direct Distributables; partially offset by continued use of MSC support services above plan, and TRU Retrieval additional resources to deal with deteriorated containers/85 gallon drum issues.

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	FY 2010		
	Projected Funding	Spending Forecast	Variance
ARRA	153.5	131.3	22.2
Base	<u>108.7</u>	<u>99.3</u>	<u>9.3</u>
Total	262.2	230.6	31.5

Numbers are rounded to the nearest \$0.1M.

Funds/Variance Analysis

Projected funding includes FY 2009 uncosted and FY 2010 expected new budget authority.

Critical Path Schedule

Critical path analysis can be provided upon request.

Estimate at Completion (EAC)

The BAC and EAC now include FY 2009 through FY 2018.

Baseline Change Requests

AWA-R13-10-003R0, Support installation of High Energy Real-Time Radiography.

MILESTONE STATUS

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, submitted in January, defines CHPRC planning with respect to TPA milestones.

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comment
M-091-45	Complete Negotiations And Submit Change Package Replacing Specified M-91 TBD Dates	TPA	4/30/10			On schedule. Negotiations appear to be complete. Tentative Agreement remains to be approved. Date extended one month by approved change request.

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comment
C-026-07E	Tritium Treatment Technology Developments to Ecology and EPA	TPA	3/31/10			Completed
M-091-03D-01	Submit Annual Revision of TRUM and MLLW PMP to Ecology	TPA	6/30/10			On schedule
M-091-40G-T02	Retrieve CH-RSW 10,700 Cubic Meters (Cumulative)	TPA	9/30/10			On schedule
M-091-42J-T02	Treat 200 Cubic Meters of CH TRUM by 9/30/10	TPA	9/30/10			Ahead of 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