



# Section I

## ***200 Area Materials & Waste Management***

### **PROJECT MANAGERS**

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## INTRODUCTION

The 200 Area Materials and Waste Management consists of Project Baseline Summary (PBS) RL-CP02, Work Breakdown Structure (WBS) 3.3.2, except for ERDF.

NOTE: Unless otherwise noted, all information contained herein is as of the end of March 2002.

Fiscal-year-to-date milestone performance (EA, DOE-HQ, and RL) shows that one milestone was completed early.

## NOTABLE ACCOMPLISHMENTS

**MLLW Treatment** — The EC-1 Condenser, stored at T Plant, has been shipped to Duratek's Bear Creek Facility for recycling. The condenser, a 32 m<sup>3</sup> piece of mixed waste will be melted down and reused as shield blocks.

**Liquid Waste Processing** — Processed over 11.1 million gallons of wastewater through the 200 Area Effluent Treatment Facility (ETF) thus far in FY 2002 supporting a variety of generators, including the Environmental Restoration Contractor (200-UP-1 Groundwater). A 242-A Cold Run was initiated in March 2002 and completed in early April to prepare for two planned 242-A Evaporator campaigns this fiscal year.

**Waste Encapsulation and Storage Facility (WESF) Operations** — The WESF Documented Safety Analysis (DSA) and Technical Safety Requirements (TSR), 10 CFR 830 rule compliant, were transmitted to RL for approval.

**TRU Waste Retrieval** — Received the Finding of No Significant Impact (FONSI) resulting from the Environmental Assessment for TRU Waste Retrieval. This concludes National Environmental Policy Act (NEPA) activities relative to retrieval.

**Headspace Sampling Confirmatory Testing** — All confirmatory testing of the "gas-tight seal" headspace gas sampling method was completed. The results of the confirmatory testing were very positive and have been provided to the Carlsbad Field Office (CBFO) to support submittal of a permit modification to the Waste Isolation Pilot Plant (WIPP) Resource Conservation and Recovery Act (RCRA) Permit. This permit modification is necessary to recover characterization data from 204 TRU waste drums previously sampled using this method at Hanford.

**TRU Mixed Waste Stream Profile Form** — A request for approval of the TRU Waste Stream Profile Form for mixed TRU debris (initially generated at the Plutonium Finishing Plant) has been transmitted to the CBFO. Approval from CBFO is needed to initiate shipment of mixed TRU waste to the WIPP.

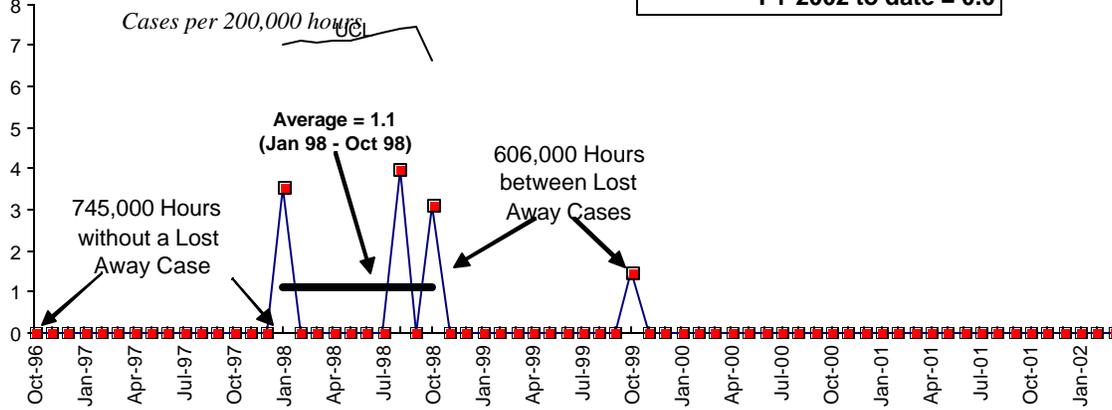
## SAFETY

At the end of March 2002, the project has reached 3.5 million safe work hours. The last lost time injury occurred in October 1999. The project has had only one "recordable" injury year to date. To date, there have been three OSHA recordable injuries with the Incident Rate (IR) standing at 0.9 at the end of March. The FH annual goal is 0.9.

**Days Away from Work  
Case Rate**

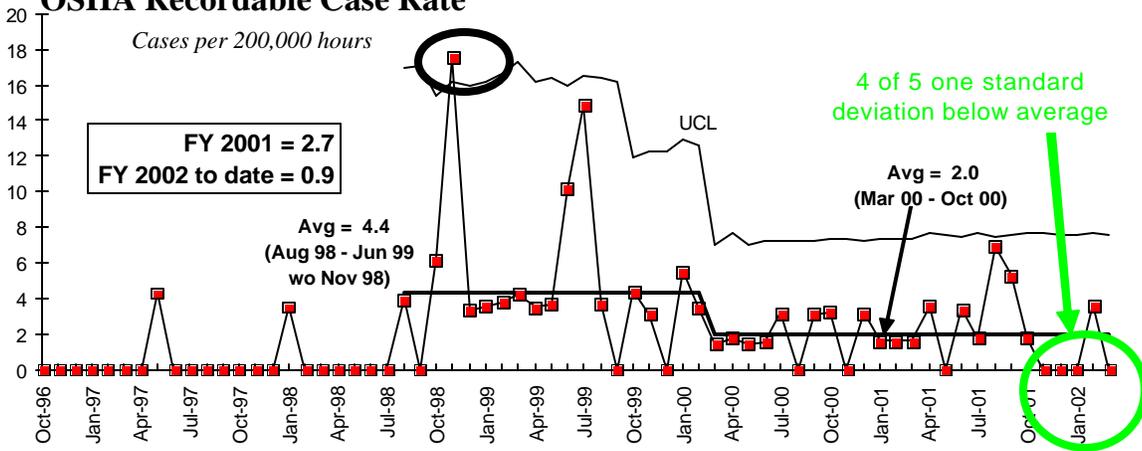
Project Safe Hours = 3,517,197  
FY 2001 = 0.0  
FY 2002 to date = 0.0

Green



**OSHA Recordable Case Rate**

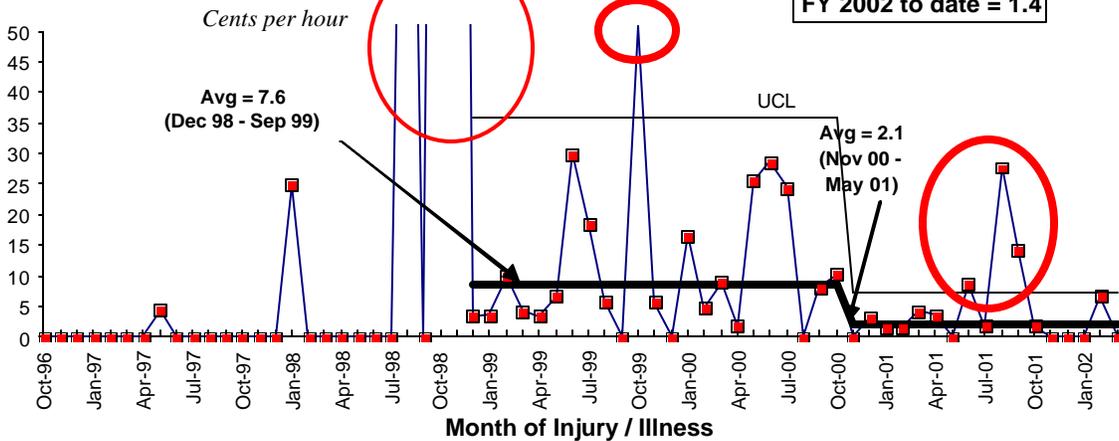
Green



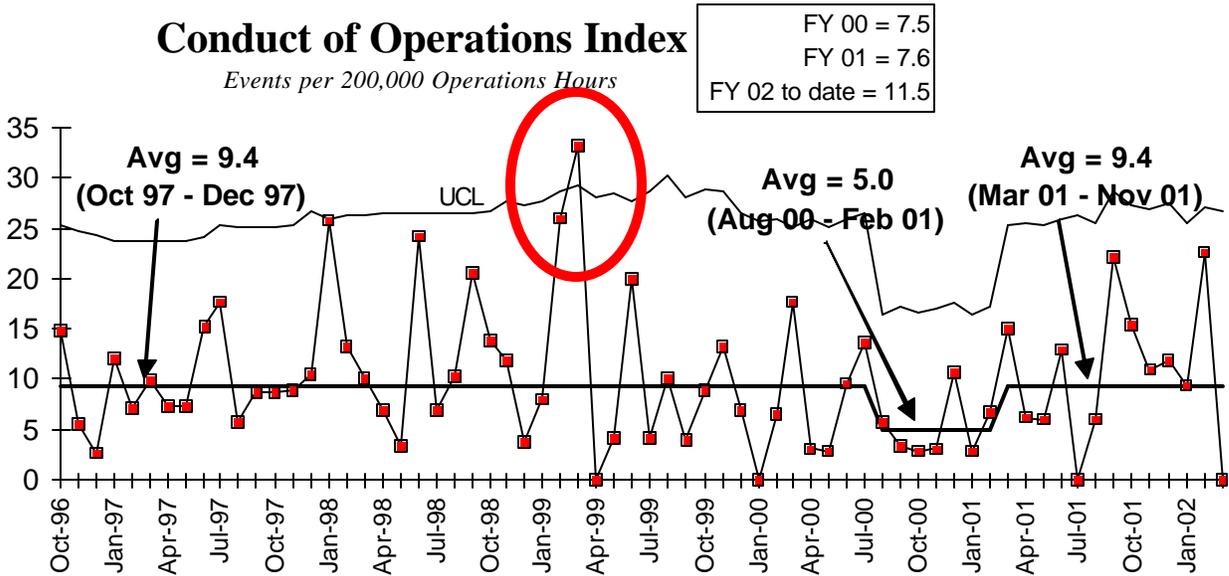
**DOE Safety Cost Index**

FY 2001 = 6.3  
FY 2002 to date = 1.4

Green



## CONDUCT OF OPERATIONS



## BREAKTHROUGHS / OPPORTUNITIES FOR IMPROVEMENT

### BREAKTHROUGHS

**Waste Receiving and Processing (WRAP) Facility low-level waste glovebox line modifications**  
<sup>3</sup>/<sub>4</sub> Modification of the WRAP low-level waste glovebox line to allow TRU waste processing continues. This modification is being funded in part by EM-50 and will increase the capacity, flexibility, and reliability of the WRAP facility. Project completion is scheduled for the 2nd quarter of FY 2003; future status reports will be provided as project completion nears.

### OPPORTUNITIES FOR IMPROVEMENT

No opportunities for improvement are identified at this time.

## UPCOMING ACTIVITIES

**Accelerate Readiness to Receive SNF K Basin Sludge** — 1) Implement a recovery plan for the Operational Readiness Review (ORR) for movement of Shippingport (PA) fuel, 2) Support activities to receive and store K Basin sludge, and 3) Accelerate T Plant Canyon cell cleanout.

**MLLW Treatment** — Continue characterization and direct disposal activities. These include Plutonium Finishing Plant (PFP) High Efficiency Particulate Air filter and T Plant Ventilator unit disposition, both of which should conclude in May 2002.

**Waste Isolation Pilot Plant Waste Acceptance Criteria (WIPP WAC) Implementation** —The proposed revision of the WIPP WAC is required to be implemented by May 17, 2002. The revision requires significant changes in the non-destructive assay and transportation activities of the TRU Program affecting both WRAP and PFP TRU waste processing. Contractual direction is required from RL. Draft revisions of the affected Hanford TRU documents/procedures have been transmitted to CBFO for review/approval.

**TRU Waste Retrieval** — Receive the Safety Evaluation Report from RL approving the Documented Safety Analysis (DSA) by May 3, 2002.

**Plutonium Finishing Plant Support** — Continue to support residues processing with shipment of the new Sand, Slag and Crucible waste stream through FY 2003.

**300 Area Cleanup Support** — Support the removal of a Curium/Americium source from the 327 Facility. Continue support to the 324 Fuels Removal Project.

**Waste Encapsulation and Storage Facility (WESF) Operations** — Continue Beneficial Uses Shipping System (BUSS) cask lay-up. Complete removal of chemical lines in the Aqueous Makeup (AMU). Support the accelerated capsule disposition initiative.

**Liquid Waste Processing** — Continue groundwater processing at the 200 Area Effluent Treatment Facility after completion of 242-A Cold Run Campaign. Two 242-A evaporator campaigns are scheduled for late summer.

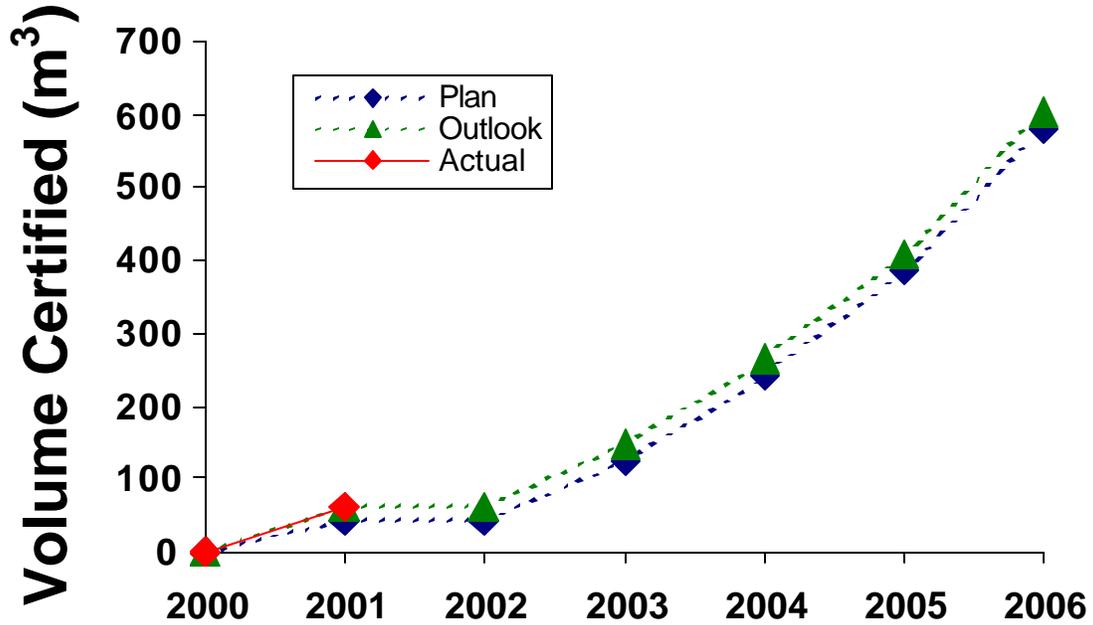
## MILESTONE ACHIEVEMENT FH Contract Milestones

Number	Milestone Title	Type	Due Date	Actual Date	Forecast Date	Status / Comment
M-19-00	Complete Treat/Disp 1,644 CM of CH-LLMW	TPA Enforceable	09-30-02	10-23-00	10-23-00	COMPLETE
M-7-1E	Complete T Plant preparation for storage of K Basins sludge	PI Base	10-30-02		12-31-02	On schedule for sufficient cell cleanout to support sludge storage.
M-7-2A	Complete ORR for K Basins Sludge Receipt	PI Base	10-30-02		10-30-02	ON SCHEDULE
M-91-12A	Treat 240 Cubic Meters by 12/31/2002	TPA Enforceable	12-31-02		12-31-02	TPA renegotiation scheduled to be completed in June 2002.
M-91-20	T Plant ready to rec. canister of K Basin floor pit sludge	TPA Enforceable	12-31-02		12-31-02	ON SCHEDULE
M-26-05J	Prep Biennial Tritium Treatment Tech Evaluation Report	TPA Enforceable	08-31-03		08-31-03	ON SCHEDULE
M-7-2B	Complete Readiness Assessment K Basins Canister & Fuel Sludge Receipts	PI Base	01-01-04		01-01-04	ON SCHEDULE
M-7-3B	De-Post T Plant Canyon as Airborne Radiation Area	PI Stretch	01-01-04		01-01-04	ON SCHEDULE
M-91-22	T Plant ready to rec. Canister & fuel wash sludge from K Basin	TPA Enforceable	02-29-04		02-29-04	ON SCHEDULE
M-91-07	Complete W -113 for Post 1970 CH TRU / TRUM Retrieval	TPA Enforceable	09-30-04		09-30-04	TPA renegotiation scheduled to be completed in June 2002.
M-1-2	Consolidate Sitewide SNF in 200 A Dry Storage	PI Base	02-28-05		02-28-05	ON SCHEDULE
M-26-05L	Prep Biennial Tritium Treatment Tech Evaluation Report	TPA Enforceable	08-31-05		08-31-05	ON SCHEDULE
M-5-2	Complete Thermal Treatment 600 m <sup>3</sup> MLLW by 12/31/05	PI Base	12-31-05		12-31-05	ON SCHEDULE

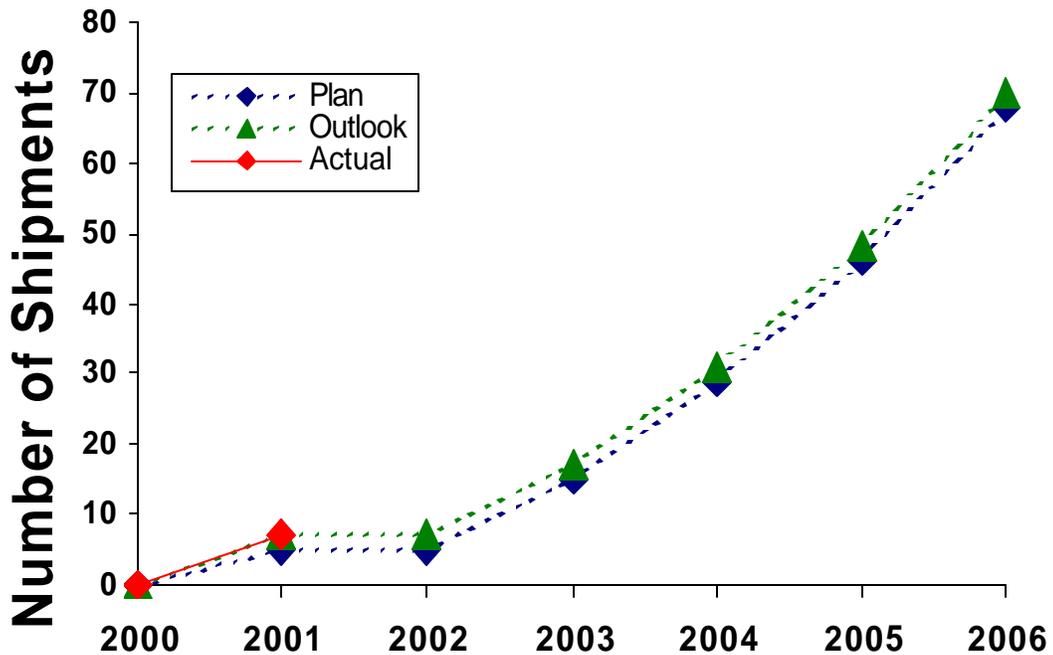
M-5-1B	Complete Treatment / Disposal 9820 m <sup>3</sup> of MLLW	PI Stretch	06-30-06		06-30-06	ON SCHEDULE
M-7-3C	Clear Remaining Stored Equipment from T Plant Canyon Deck	PI Stretch	06-30-06		06-30-06	ON SCHEDULE
M-4-1D	Retrieve 15,200 Suspect TRU Waste	PI Stretch	09-30-06		09-30-06	ON SCHEDULE
M-6-1A	Certify 580 m <sup>3</sup> of TRU waste	PI Stretch	09-30-06		09-30-06	ON SCHEDULE
M-6-1B	Complete 68 TRU Waste Shipments to WIPP	PI Stretch	09-30-06		09-30-06	ON SCHEDULE

## PERFORMANCE OBJECTIVES

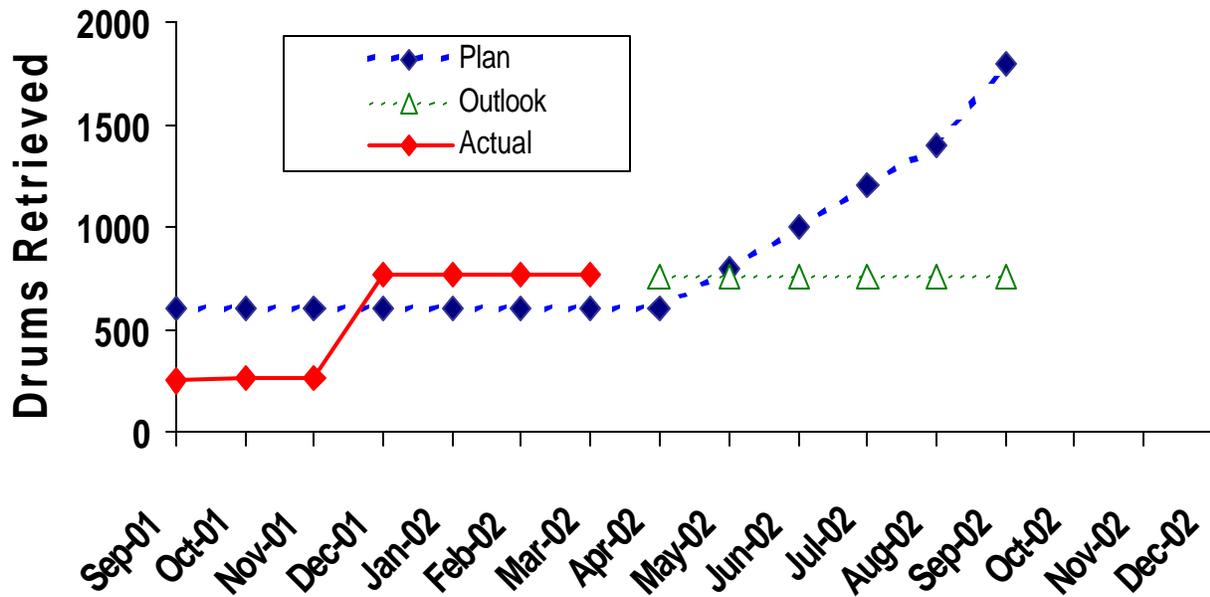
### CERTIFY TRU WASTE (FHI-M6)



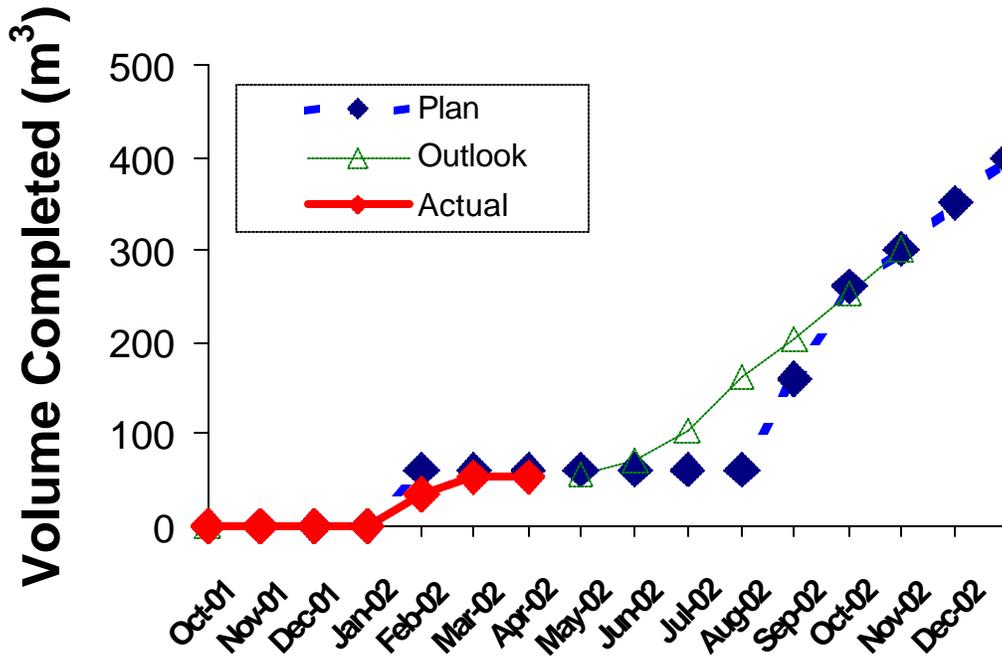
### SHIP TRU WASTE (FHI-M6)



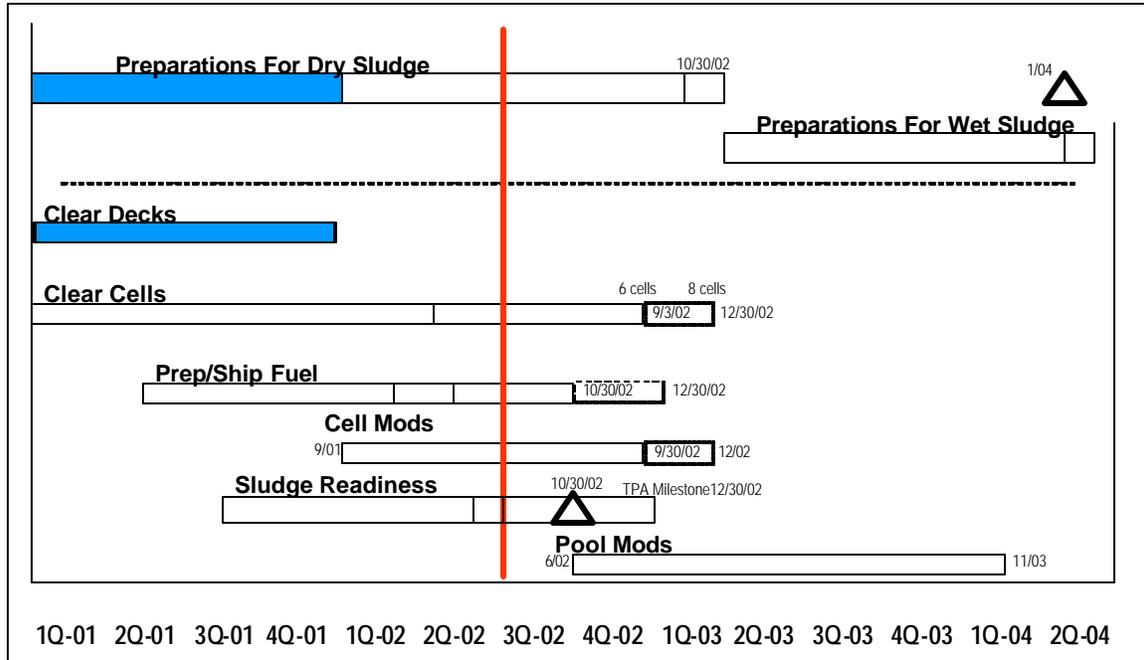
### RETRIEVE TRU WASTE (FHI-M4)



### TREAT AND DISPOSE MLLW (FHI-M5)



## ACCELERATE READINESS TO RECEIVE K-BASIN SLUDGE (FHI-M7)



## FY 2002 SCHEDULE / COST PERFORMANCE – ALL FUND TYPES FY TO DATE STATUS – (\$000)

		FYTD								
		BCWS	BCWP	ACWP	SV	%	CV	%	BAC	
PBS CP02	SW Storage & Disposal	\$ 4,980	5387	\$ 5,202	\$ 407	8%	\$ 185	3%	\$ 11,379	
WBS 3.3.2.1										
PBS CP02	MLLW Treatment	\$ 1,111	\$ 188	\$ 216	\$ (923)	-83%	\$ (29)	-15%	\$ 3,458	
WBS 3.3.2.2										
PBS CP02	SW Treatment	\$ 4,544	\$ 4,774	\$ 6,740	\$ 230	5%	\$ (1,966)	-41%	\$ 10,679	
WBS 3.3.2.3										
PBS CP02	TRU Program	\$ 5,820	\$ 6,325	\$ 5,476	\$ 505	9%	\$ 849	13%	\$ 13,310	
WBS 3.3.2.4										
PBS CP02	WESF	\$ 3,521	\$ 3,530	\$ 3,397	\$ 10	0%	\$ 133	4%	\$ 7,633	
WBS 3.3.2.5										
PBS CP02	200 A LWPF	\$ 7,136	\$ 7,442	\$ 7,092	\$ 307	4%	\$ 351	5%	\$ 15,753	
WBS 3.3.2.6										
PBS CP02	Project Management	\$ 9,665	\$ 9,452	\$ 8,545	\$ (213)	-2%	\$ 907	10%	\$ 19,158	
WBS 3.3.2.9										
<b>Total</b>		\$ 36,775	\$ 37,098	\$ 36,668	\$ 323	1%	\$ 430	1%	\$ 81,370	

## FY TO DATE SCHEDULE / COST PERFORMANCE

The \$0.3 million (1 percent) favorable schedule variance was primarily due to the progress on / completion of FY 01 carryover work scope and credit taken for the TRU Program for work completed in FY 2001. The 200A Liquid Waste Processing Facility RCRA campaign was completed one month ahead of schedule. The favorable variance was offset by the T Plant Operational Readiness Review (ORR) for the spent fuel removal being stopped to resolve and implement assessment comments. Also, MLLW Treatment production is limited at ATG, Inc. while under Chapter 11.

The \$0.4 million (1 percent) favorable cost variance was primarily due to FY 2001 carryover workscope costing less than planned, contracts not being placed and credit taken for the TRU Program for work completed in FY 2001. Increased costs for the T Plant spent fuel removal ORR preparation and assessment corrective actions offset the favorable variance.

For all active sub-PBSs and TTPs associated with the Operations/Field Office, Fiscal Year to Date (FYTD) Cost and Schedule variances exceeding + / - 10 percent or one million dollars require submission of narratives to explain the variance.

### Schedule Variance Analysis: (+\$0.3M)

#### **MLLW Treatment — 3.3.2.2/CP02**

**Description/Cause:** The unfavorable schedule variance is a result of treatment production being limited at ATG while under Chapter 11.

**Impact:** The TPA milestone M-91-12A is unachievable.

**Corrective Action:** Some non-thermal activities have been identified and are proceeding. Formal notification to RL that TPA milestone M-91-12A is unachievable was submitted February 11, 2002.

## Cost Variance Analysis: (+ \$0.4M)

### MLLW Treatment — 3.3.2.2/CP02

**Description/Cause:** The unfavorable cost variance is a result of treatment production being limited at ATG while under Chapter 11.

**Impact:** The TPA milestone M-91-12A is unachievable.

**Corrective Action:** Some non-thermal activities have been identified and are proceeding. Formal notification to RL that TPA milestone M-91-12A is unachievable was submitted February 11, 2002.

### SW Treatment — 3.3.2.3/CP02

**Description/Cause:** The unfavorable cost variance is due to the increased costs for the T Plant ORR preparation and assessment corrective actions.

**Impact:** T Plant will be over-run at year end.

**Corrective Action:** Actions have been implemented to resolve cost impacts to the WM Project.

### TRU Program— 3.3.2.4/CP02

**Description/Cause:** The favorable cost variance is due to BCWP taken in October for three WIPP shipments completed in FY 2001 and completion of FY 2001 carryover work scope.

**Impact:** There is no significant project impact at this time.

**Corrective Action:** No corrective action needed.

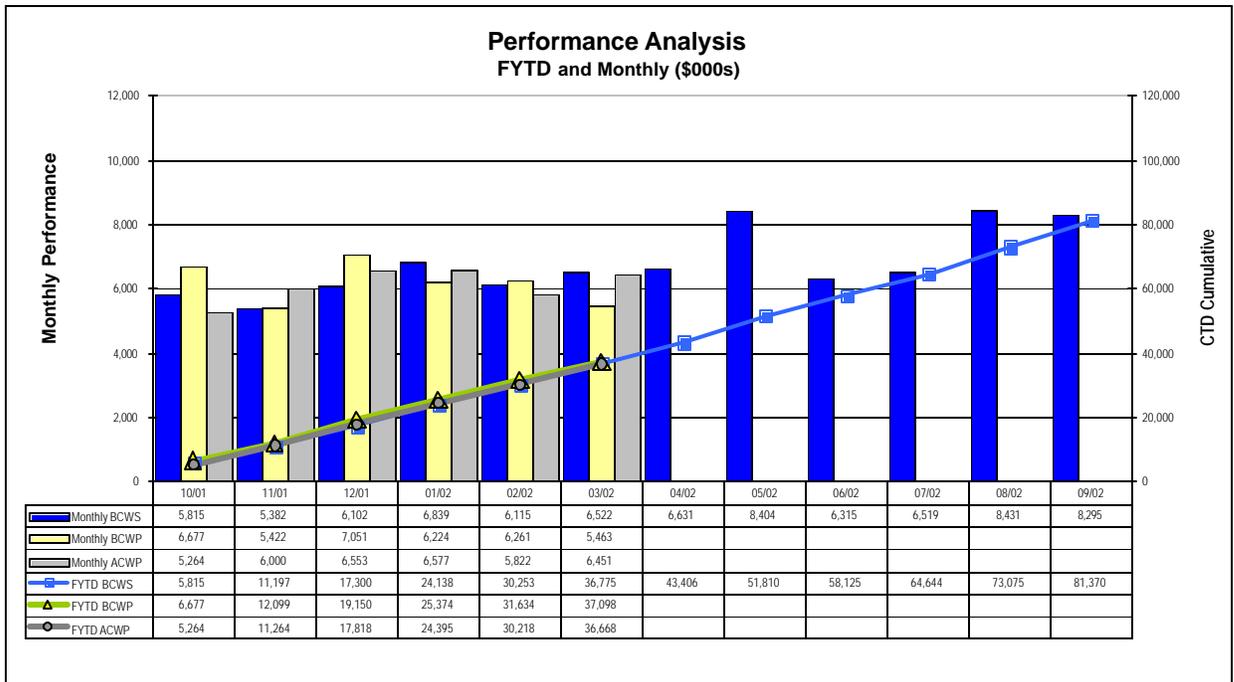
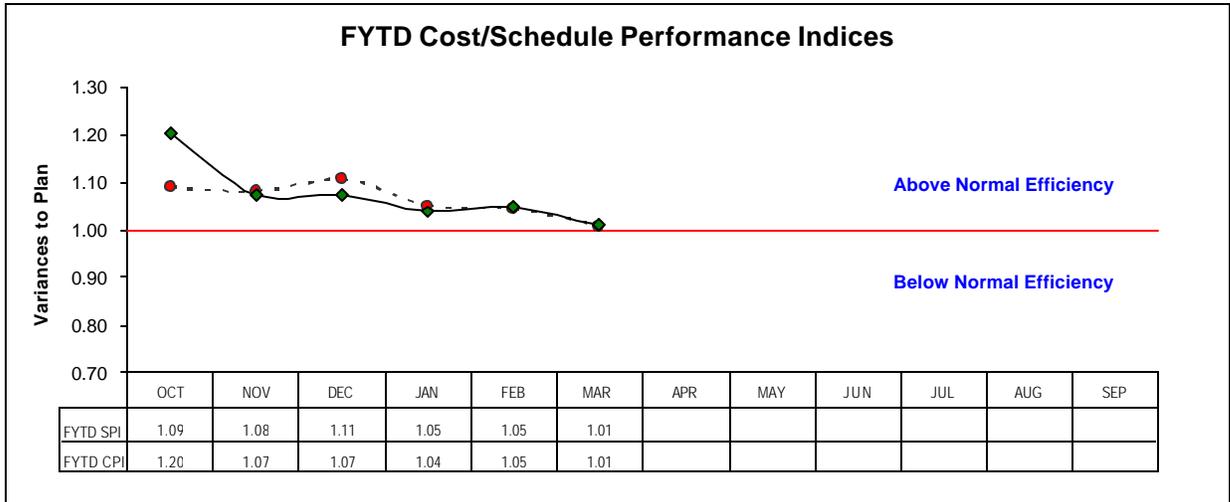
### Project Management — 3.3.2.9/CP02

**Description/Cause:** The favorable cost variance is a result of contract work not being required for the Solid Waste Environmental Impact Statement and the Canyon Disposition Initiative.

**Impact:** This results in a savings for the Waste Management.

**Corrective Action:** No corrective action needed.

## COST / SCHEDULE PERFORMANCE (MONTHLY AND FYTD)



## FUNDS MANAGEMENT

### FYTD FUNDS VS. SPENDING FORECAST (\$000)

	FH Funds Reallocation	FYSF	Variance
<b>3.3.2 Waste Management CP02</b>	\$ 77,353	\$ 78,582	\$ (1,229)
<b>Total</b>	\$ 77,353	\$ 78,582	\$ (1,229)

NOTES: (1) FH Reallocation reflects an FYSF adjusted for scope deletions, deferrals, and identified savings to address funding shortfalls, additional unplanned scope, and cost increases.  
(2) FYSF \$79M if TRU retrieval stopped 4/2/2002.

## ISSUES

### Technical Issues

**Issue:** Recovery of T Plant Readiness to move Shippingport Fuel.

**Impact/Status:** A recovery plan has been developed and implemented. Key elements include enhanced staffing, increased matrixed support, and the use of onsite and offsite mentors.

**Corrective Actions:** Conduct successful management self-assessment, starting April 29, 2002. Declare readiness for contractor operational readiness review to start May 14, 2002.

**Issue:** T Plant Canyon Cell Cleanout and Modification Progress.

**Impact/Status:** Cell cleanout is behind schedule. Cells 3L and 10L have been cleaned out; cleanout of 15L is in progress. Modification of 10L is scheduled to start on April 22, 2002.

**Corrective Actions:** Complete modification of first cell by June 30, 2002. Utilize overtime to maintain progress until second shift operations implemented in June 2002.

### External Issue

**Issue:** Lack of MLLW Treatment Capacity.

**Impact/Status:** ATG's financial status has adversely impacted production rates. Alternative treatment plans must be identified.

**Corrective Actions:** Working with ATG Trustee to accomplish limited treatment and establish basis for future sustained treatment (W. J. Hoogendoorn/L. T. Blackford). Evaluate use of DOE Broad Spectrum contract by May 31, 2002 (L. T. Blackford). Continue onsite treatment/disposal efforts (L. T. Blackford).

## DOE Requests

**Issue:** Buried TRU Drum Retrieval Behind Schedule.

**Impact/Status:** Retrieval Documented Safety Analysis submitted; discussions with DOE-RL ongoing. Limited progress has been made on project activities (NEPA, air permitting, and equipment design) based on FY2002 funding uncertainty.

**Corrective Actions:** Implement staffing and procurement decisions based on April 18, 2002 Fiscal Year Spending Forecast (R. D. Greenwell). Resolve DSA comments and incorporate outcome in Project Plan (R. D. Greenwell).

**Issue:** Resolve CWC FHA and Safety Basis Concerns Identified in Fire Protection System Assessment

**Impact/Status:** DOE-RL reported three significant issues from the assessment related to: 1) sprinkler systems, 2) authorization basis document deficiencies, and 3) disconnects between FHA and safety analyses. USQ evaluations have been completed and interim actions implemented.

**Corrective Actions:** Complete analysis of the final assessment report upon issuance by DOE-RL and submit a JCO (R. D. Greenwell).

## REGULATORY/DOE ISSUES

Nothing to report at this time.

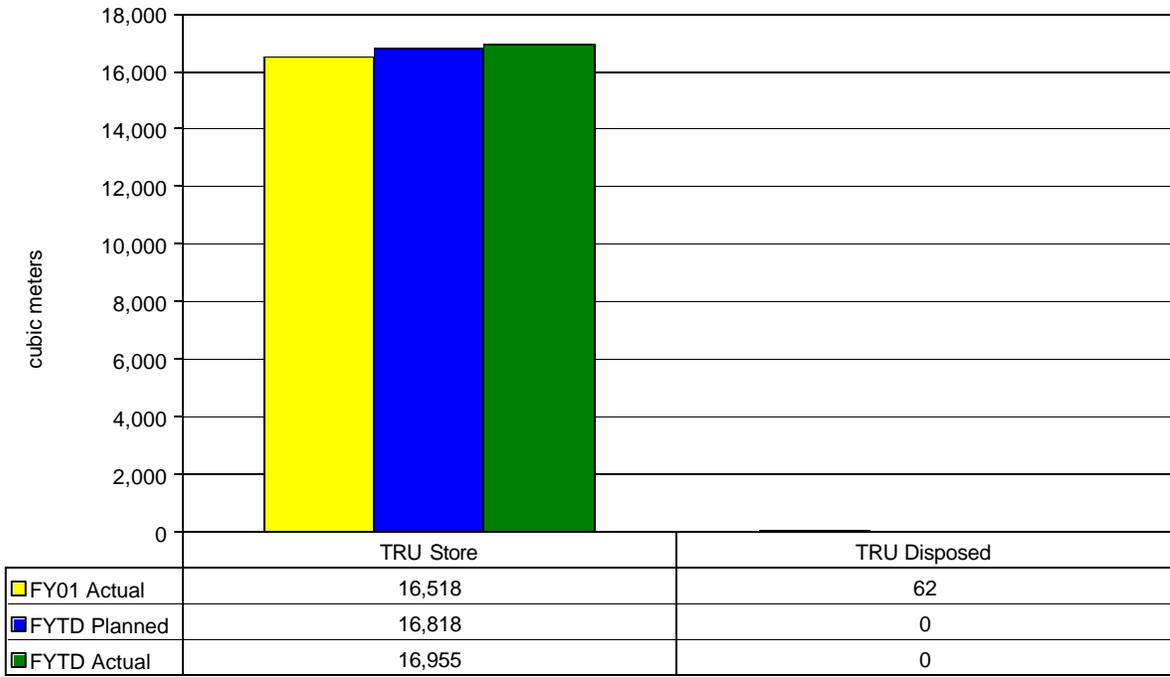
## BASELINE CHANGE REQUESTS CURRENTLY IN PROCESS

BCR No./ Level 4 WBS	Date Originated	Description	Impact		Date Approved	Status
			Days	Dollars (\$000s)		
CP02-02-010	4/3/2002	CWC unvented drums		65	4/3/2002	To be Implemented in April
FH-02-009	3/12/2002	10 CFR 830		173	3/25/2002	Implemented in March

NOTES: "Impact" refers to the impact in terms of the number of days or dollars changing from the 9/30/01 baseline.  
"Date Approved" refers to date of change as approved by final approval authority.



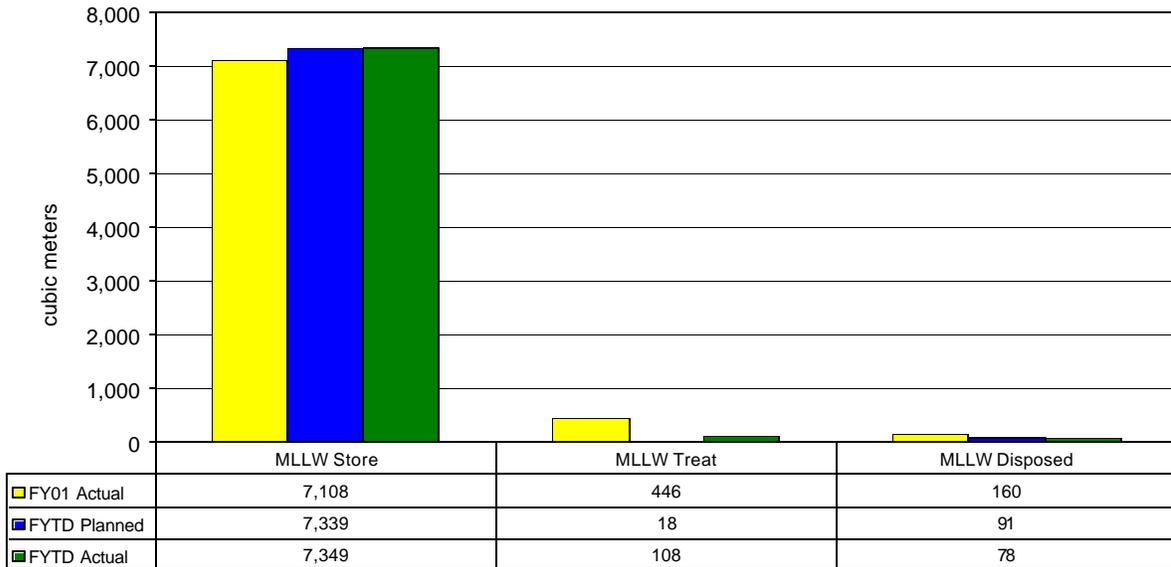
## TRANSURANIC (TRU) WASTE: STORAGE, TREATMENT AND DISPOSAL



**Storage:** Storage continues to be provided for existing and newly generated TRU waste.

**Disposal:** None planned this fiscal year.

## MIXED LOW LEVEL WASTE: STORAGE, TREATMENT, AND DISPOSAL

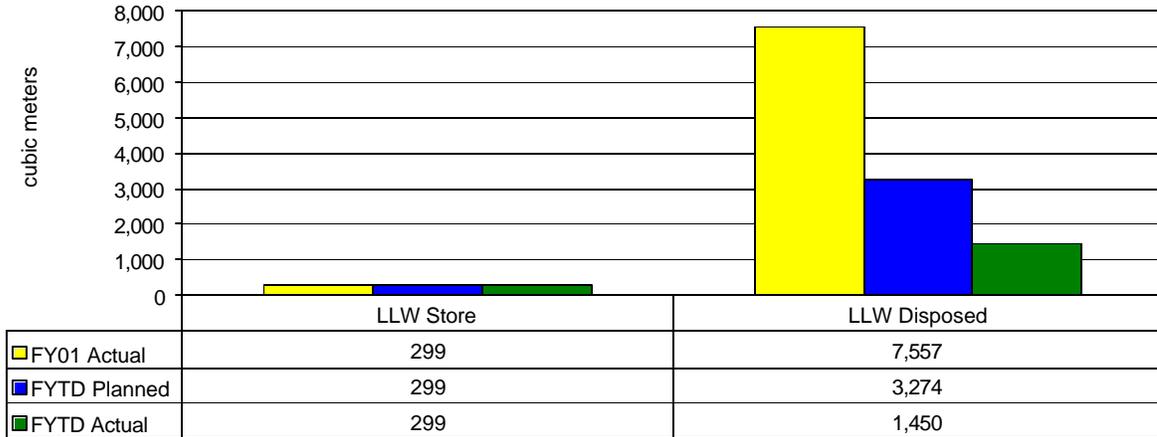


**Storage:** The current volume of MLLW in storage is within 10 percent of the planned amount.

**Treatment:** 90 cubic meters of waste treated during the second quarter of FY 2002 that was scheduled for treatment in FY 2001.

**Disposal:** Treated MLLW received from ATG has been staged, but not yet accepted at the end of the 2nd quarter.

## LOW LEVEL WASTE (LLW): STORAGE, TREATMENT, AND DISPOSAL



**Storage:** Storage continues to be provided for LLW that does not meet waste acceptance criteria for disposal in the burial grounds.

**Disposal:** Less LLW has been disposed than planned as a result of the Low Level Waste Burial Grounds being virtually shut down the last two and one half weeks of December because of monthly and annual routines being performed; schedule slippages; and verification requirements on waste that was received but has not yet been disposed. Princeton, a high volume contributor, is now shipping to the Nevada Test Site (NTS). Tank Farm shipments have been impacted by the ATG shutdown, and other disposal options are being considered.