

# SECTION A

# EXECUTIVE SUMMARY



## **INTRODUCTION**

This section provides an executive level summary of the performance information covered in this report and is intended to bring to Management’s attention that information considered to be most noteworthy. All cost, schedule, milestone commitments, performance measures, and safety data is current as of April 30. Accomplishments, Issues and Integration items are current as of May 19 unless otherwise noted.

The section begins with a description of notable accomplishments that have occurred since the last report and are considered to have made the greatest contribution toward safe, timely, and cost-effective clean up. Following the accomplishment section is an overall fiscal year-to-date summary analysis addressing cost, schedule, and milestone performance. Overviews of safety ensue. The next segment of the Executive Summary, entitled Critical Issues, is designed to identify the high-level challenges to achieving cleanup progress.

The next section includes FY 2000 EM Management Commitment High Visibility Project Milestones and Critical Few Performance Measures.

The Key Integration Activities section follows next, highlighting PHMC activities that cross contractor boundaries and demonstrate the shared value of partnering with other Site entities to accomplish the work. Concluding the Executive Summary, a forward-looking synopsis of Upcoming Planned Key Events is provided.

## **NOTABLE ACCOMPLISHMENTS**

- As of May 14, 2000, a total of 255 cans of Plutonium oxides and sludges have been stabilized through thermal stabilization (31 items since last report).
- The first four Multi-Canister Overpacks (MCOs) were received from Joseph Oat, Inc. Fabrication of the MCO baskets continued at the Hanford Site.
- The Cold Vacuum Drying Facility Bay 5 was turned over to Operations for training and procedure walkdown.
- Ten grout containers, of the planned seventeen, have now been shipped to the Low-level Burial Grounds in the 200 Area. Shipment of this waste is critical to meeting TPA milestone M-89-02, “Complete Removal of 324 Building Radiochemical Engineering Cell (REC) B Cell Mixed Waste (MW) and Equipment,” due November 2000.
- The results of the follow up visit for certification of the Hanford Site for characterization, certification and shipment of TRU wastes to the WIPP was completed. All five Corrective Action Reports (CARs) were closed.
- Good progress was made toward closeout of the actions required by the B Plant transfer Memorandum of Agreement (MOA). Repair of the cracked duct was completed on May 5, 2000 and turnover criteria are being negotiated between Bechtel Hanford, Inc., Fluor Hanford, and the Department of Energy – Richland.
- Progress continues toward Accelerated Deactivation of the 327 Facility with the removal of 202 of the 294 specimen containers from Dry Storage.
- The 242A Evaporator campaign was completed on May 2, 2000, seven days ahead of schedule. The campaign processed 1.3 million gallons of high-level radioactive waste with an all-time high operational efficiency of 99.7%.

## PERFORMANCE DATA AND ANALYSIS

The following provides a brief synopsis of overall PHMC Environmental Management (EM) cost, schedule, and milestone performance.

### FY 2000 Cost and Schedule Performance

**Cost Performance** — Fiscal-year-to-date (FYTD) cost performance reflects a four percent (\$14.0 million) unfavorable cost variance that is within the established +10/-5 percent threshold.

**Schedule Performance** — There is a FYTD seven and one-half percent (\$25.8 million) unfavorable schedule variance that is at the established +10/-7.5 percent threshold.

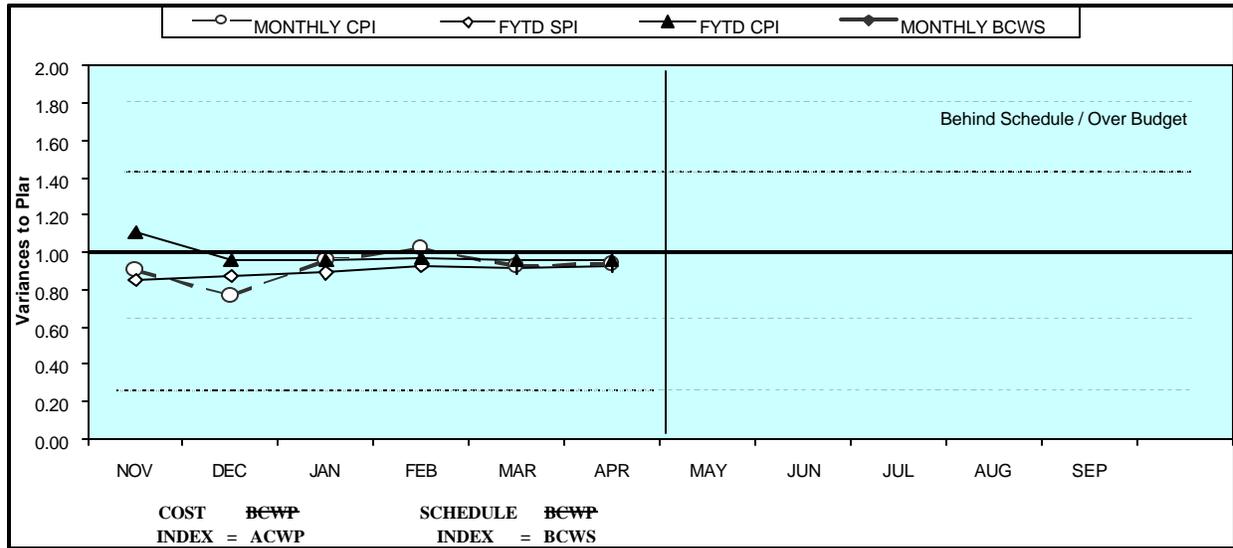
Data Through April 2000

	Current Fiscal Year Performance (\$ x Million)					PEM	FYSF	EAC
	FYTD			Schedule Variance	Cost Variance			
	BCWS	BCWP	ACWP					
<b>The Plateau</b>								
1.2 <b>Waste Management</b> TP02,WM03-05	60.3	57.1	57.1	(3.2)	(0.0)	110.2	108.0	108.0
1.2.4 <b>Analytical Svcs (222-S,HASP,WSCF)</b> WM06	16.0	15.4	16.4	(0.5)	(1.0)	27.8	28.7	29.1
1.4.5 <b>Nuclear Materials Stabilization</b> TP05	75.3	60.7	65.5	(14.7)	(4.8)	127.2	127.6	127.0
<b>Subtotal The Plateau</b>	<b>151.6</b>	<b>133.2</b>	<b>139.0</b>	<b>(18.4)</b>	<b>(5.8)</b>	<b>265.2</b>	<b>264.3</b>	<b>264.1</b>
<b>The River</b>								
1.4 <b>River Corridor</b> TP01,TP04,TP08,TP10,TP12,TP14	32.5	31.7	29.7	(0.7)	2.0	62.1	52.0	52.2
1.3 <b>Spent Nuclear Fuel</b> WM01	111.0	111.3	123.2	0.3	(11.9)	195.1	201.4	201.4
1.12 <b>Advanced Reactors (EM)</b>	0.7	0.8	0.7	0.0	0.1	1.5	1.1	1.1
<b>Technology Development (EM-50)</b>	12.2	10.4	9.6	(1.7)	0.8	22.9	22.9	22.9
<b>Subtotal The River</b>	<b>156.3</b>	<b>154.2</b>	<b>163.2</b>	<b>(2.2)</b>	<b>(9.1)</b>	<b>281.5</b>	<b>277.4</b>	<b>277.6</b>
<b>The Future</b>								
1.9 <b>HAMMER</b> HM01	3.6	3.4	3.1	(0.2)	0.3	6.2	5.9	5.9
<b>Subtotal The Future</b>	<b>3.6</b>	<b>3.4</b>	<b>3.1</b>	<b>(0.2)</b>	<b>0.3</b>	<b>6.2</b>	<b>5.9</b>	<b>5.9</b>
<b>Multiple Outcomes</b>								
1.5 <b>Landlord</b> TP13	7.4	6.4	3.9	(1.0)	2.5	14.3	13.4	15.0
1.8 <b>Mission Support</b> OT01, OT04	22.4	18.1	20.6	(4.3)	(2.5)	45.7	47.2	47.0
1.11 & WM07 <b>National Programs</b> OT02, WM07	2.4	2.7	2.1	0.2	0.6	6.2	4.6	6.1
<b>Subtotal Multiple Outcomes</b>	<b>32.3</b>	<b>27.2</b>	<b>26.6</b>	<b>(5.0)</b>	<b>0.6</b>	<b>66.2</b>	<b>65.1</b>	<b>68.2</b>
<b>Total PHMC Projects</b>	<b>343.8</b>	<b>318.0</b>	<b>332.0</b>	<b>(25.8)</b>	<b>(14.0)</b>	<b>619.1</b>	<b>612.8</b>	<b>615.8</b>

Notes: Column headings (BCWS, BCWP, FYSF, EAC, etc.) are defined in the glossary at the end of the report. Calculations are based on Project Baseline Summary detail. Waste Management and Nuclear Materials Stabilization have included RL-Directed costs (e.g. steam and laundry) in the PEM BCWS. Advanced Reactors (EM) have included steam. Technology Development does not include ORP/RPP TTPs currently reported in the RL Dataset in the HQ-IPABS-PEM.

The following Cost/Schedule and Variance to Plan chart provides an overall graphical view of fiscal year to date performance and cost and schedule performance indicators.

## FY 2000 COST / SCHEDULE PERFORMANCE APRIL 2000 CUMULATIVE TO DATE STATUS



FY 2000	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MONTHLY SPI	0.91	0.82	0.91	0.94	1.06	0.90	0.96					
MONTHLY CPI	1.63	0.91	0.77	0.96	1.02	0.92	0.94					
FYTD SPI	0.91	0.85	0.87	0.89	0.93	0.92	0.92					
FYTD CPI	1.63	1.10	0.96	0.96	0.97	0.96	0.96					
MONTHLY BCWS	\$ 32,593	\$ 53,767	\$ 43,044	\$ 45,672	\$ 48,699	\$ 71,043	\$ 48,946	\$ 60,699	\$ 44,643	\$ 48,418	\$ 60,666	\$ 60,958
MONTHLY BCWP	\$ 29,522	\$ 44,109	\$ 39,143	\$ 42,979	\$ 51,468	\$ 63,739	\$ 47,010					
MONTHLY ACWP	\$ 18,079	\$ 48,593	\$ 50,990	\$ 44,809	\$ 50,494	\$ 69,041	\$ 49,967					
FYTD BCWS	\$ 32,593	\$ 86,360	\$ 129,403	\$ 175,075	\$ 223,774	\$ 294,817	\$ 343,763	\$ 404,462	\$ 449,105	\$ 497,523	\$ 558,189	\$ 619,147
FYTD BCWP	\$ 29,522	\$ 73,631	\$ 112,774	\$ 155,753	\$ 207,221	\$ 270,960	\$ 317,970					
FYTD ACWP	\$ 18,079	\$ 66,672	\$ 117,662	\$ 162,471	\$ 212,965	\$ 282,006	\$ 331,973					

## MILESTONE PERFORMANCE

Milestones represent significant events in project execution. They are established to provide a higher level of visibility to critical deliverables and to provide specific status about the accomplishment of these key events. Because of the relative importance of milestones, the ability to track and assess milestone performance provides an effective tool for managing the PHMC EM cleanup mission.

FYTD milestone performance (Enforceable Agreement [EA], U.S. Department of Energy-Headquarters [DOE-HQ], and RL) shows that 32 of 44 (73 percent) approved baseline milestones were completed on or ahead of schedule, 3 milestones (7 percent) were completed late, and 9 milestones (20 percent) are overdue. The nine overdue milestones are associated with five projects: Nuclear Material Stabilization—three, River Corridor—two, Environmental Management (EM)-50—two, Landlord—one, and Mission Support—one. These overdue milestones do not share a common cause.

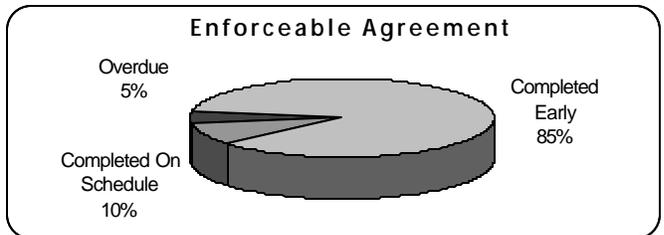
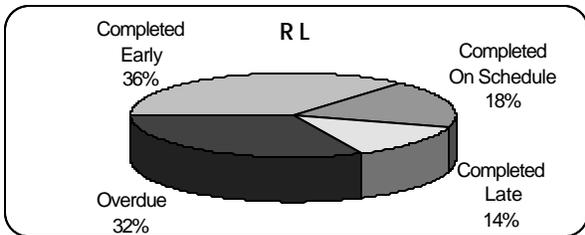
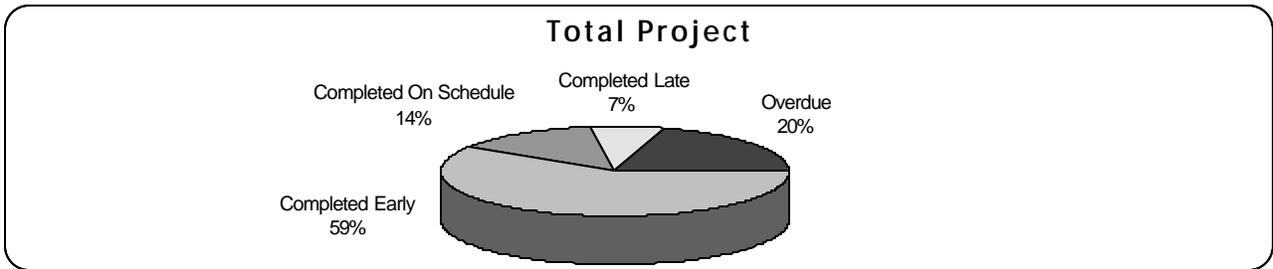
In addition to the FY2000 milestones described above, there are four overdue milestones from the prior fiscal year (FY1999). Further details regarding these milestones may be found in the Project Sections.

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FY 2000 information is depicted graphically below and on the following page. For additional details related to the data in the graphs and prior year milestones, refer to the relevant project section titled “Milestone Exception Report.”

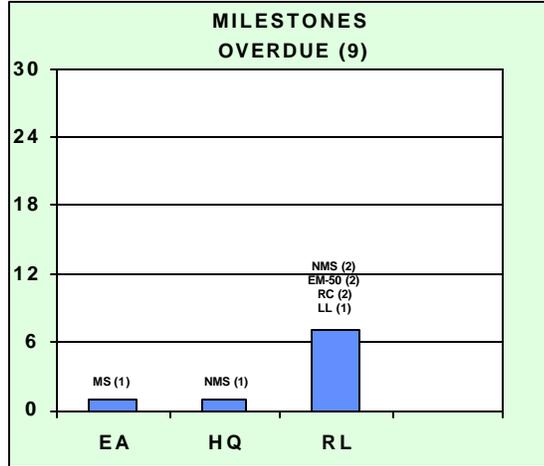
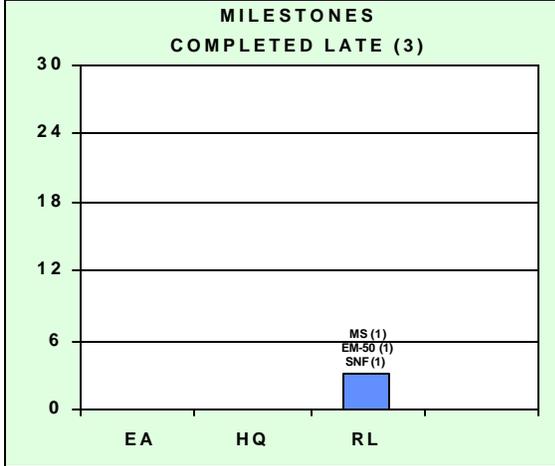
FY 2000 information reflects the current approved baseline. Changes in both the number and type of milestones from month to month are the result of Baseline Change Requests (BCRs) approved during the year.

MILESTONE TYPE	FISCAL YEAR-TO-DATE				REMAINING SCHEDULED			TOTAL FY 2000
	Completed Early	Completed On Schedule	Completed Late	Overdue	Forecast Early	Forecast On Schedule	Forecast Late	
Enforceable Agreement	18	2	0	1	0	12	0	33
DOE-HQ	0	0	0	1	0	3	0	4
RL	8	4	3	7	0	52	0	74
<b>Total Project</b>	<b>26</b>	<b>6</b>	<b>3</b>	<b>9</b>	<b>0</b>	<b>67</b>	<b>0</b>	<b>111</b>

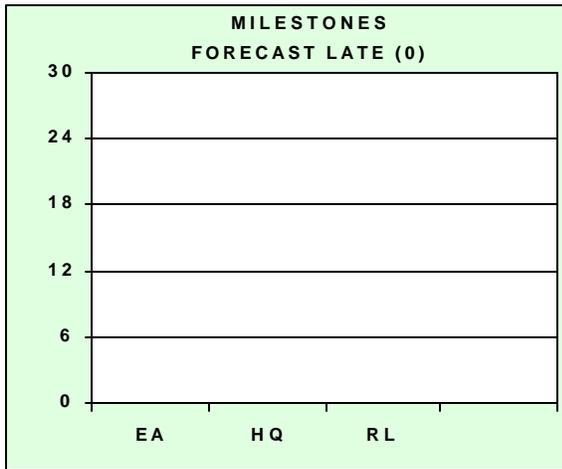


**MILESTONE EXCEPTIONS**

**FISCAL YEAR TO DATE**



**REMAINING SCHEDULED**



These charts provide detail by project and milestone level / type for milestones

- Completed Late
- Overdue
- Forecast Late
- Detailed information can be found in the individual project sections

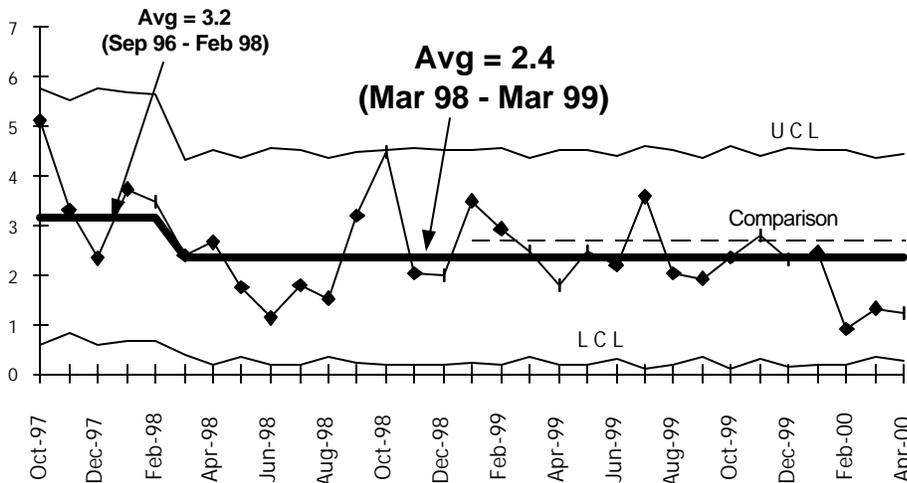
## **SAFETY OVERVIEW**

The focus of this section is to document trends in occurrences. Improvements in these rates are due to the efforts of the PHMC workforce as they implement the Integrated ES&H Management System (ISMS), work towards achieving Voluntary Protection Program (VPP) “star” status, and accomplish work through Enhanced Work Planning (EWP). Safety and health statistical data is presented in this section.

### **SIGNIFICANT SAFETY AND HEALTH EVENTS**

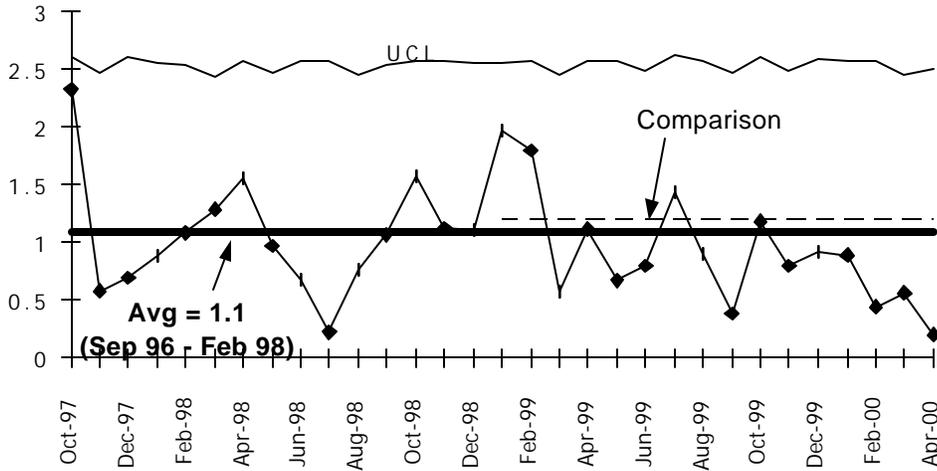
Rates have been stable for over two years. This safety performance plateau has been recognized by the safety organizations, and Fluor Hanford kicked off its Integrated Safety Approach initiative on December 6, 1999 in order to take safety performance to a new level. This initiative focuses on the "people side" of accident prevention.

### **Total OSHA Recordable Case Rate**



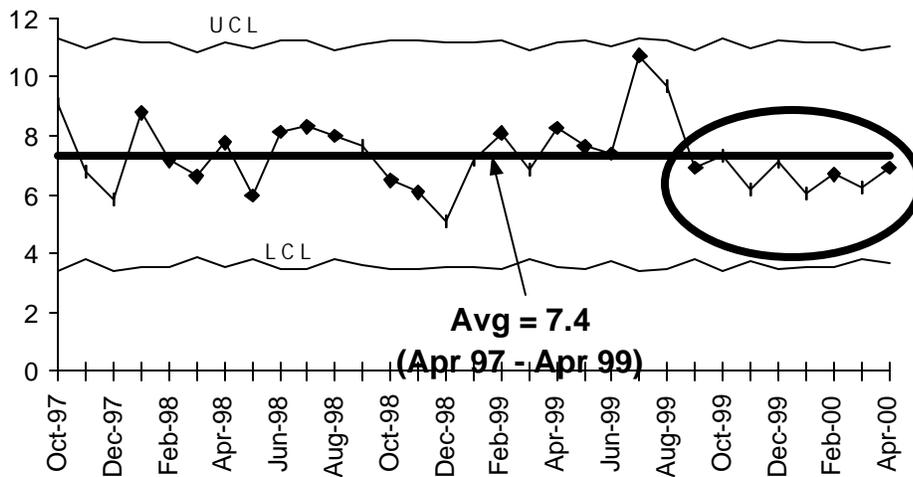
FY 1999 = 2.6  
 FY 2000 = 1.9  
 Contractor Comparison Average = 32.7 (CY99)  
 This indicator had a nearly significant decrease in February through April. If May is similar, it will be four months in a row at one standard deviation below average.  
 Consolidation of the projects under Fluor Hanford, and actions taken at the end of FY 1999 to look at injury sources appears to be having an effect.

## OSHA LOST/RESTRICTED WORKDAY CASE RATE



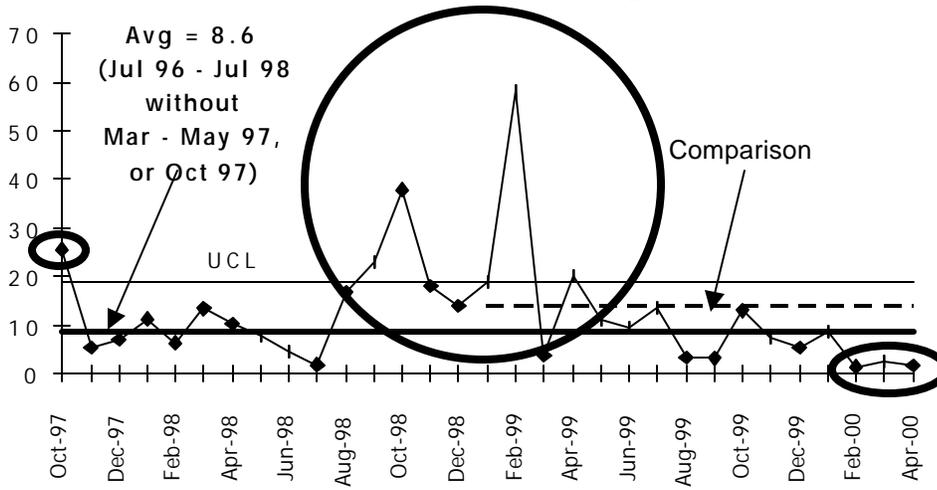
FY 1999 = 1.1  
 FY 2000 to date = 0.7  
 Contractor Comparison  
 Average = 1.2 (CY99)  
 The data have been  
 stable for the past two  
 years. Most of the recent  
 months (over the past  
 year) have been well  
 below average, a hopeful  
 sign of potential  
 improvement.

## First Aid Case Rate



First Aid Rate undergoes  
 seasonal cycles. Increases  
 occur in warmer weather due  
 to insect and animal  
 encounters, and due to wind  
 related minor injuries. First  
 Aid case rate has remained  
 relatively stable, a good  
 check that injuries are not  
 being under-reported. There  
 are currently 8 months in a  
 row below average, due to  
 the normal winter decrease.

## DOE Safety Cost Index



FY 1999 = 17  
 FY 2000 to date = 5.5  
 Contractor Comparison Average = 13.9 (CY99)  
 There has been a long term cycle over the past three years of decreases for 7 to 9 months, followed by increases. Two of the past three months have been two standard deviations below average. However, recent data may gain further lost or restricted days.

## CRITICAL TECHNICAL ISSUES

Nothing to report.

**MANAGEMENT COMMITMENT MILESTONES AS OF MAY 31, 2000**

<b>Milestones</b>	<b>Due Date</b>	<b>Forecast Date</b>	<b>Actual Date</b>	<b>Status / Comments</b>
<b>Nuclear Materials Stabilization</b>				
Submit FPF Tank 361 Core Sample Data to EPA (M-015-37B)	5/31/00	5/31/00	5/31/00	Complete
Begin Stab. of Pu Solutions via Mg(OH) <sub>2</sub>	7/31/00	9/05/00		
<b>Spent Nuclear Fuels</b>				
Complete KW Cask Facility Mods (M-034-14A)	2/29/00	2/29/00	2/29/00	Complete
Commence Phased Startup Initiative Hot Testing	5/31/00	7/13/00		
Complete Phased Startup Initiative Testing	8/31/00	8/31/00		
<b>Waste Management</b>				
Initiate TRU Shipment to WIPP	5/31/00	6/19/00		

**CRITICAL FEW PERFORMANCE MEASURES**

<b>Performance Measure</b>	<b>Status as of April 30, 2000</b>
<b>Spent Nuclear Fuel:</b>	
Measure - Amount of fuel removed	
Declaration of Readiness to move Spent Nuclear Fuel	Green
Phased Startup Initiative Phases I & II	Red
Measure - Amount of SNF Stabilized	NA FY 2000
<b>324/327 Building Deactivation:</b>	
Measure - Number of buildings dispositioned	Green
<b>Waste Management:</b>	
Measure - Adequacy of waste management services support	
Number of analytical equivalent units (AEU's) analyzed	Green
Through-put efficiency of effluent treatment facility (ETF) gpm	Green
Number of 242-A evaporator campaigns completed	Green
Measure - Retrieve and ship TRU offsite	
Number of drums retrieved	Green
Number of shipments to WIPP	Green
Measure - MLLW Treated (m3)	Green
Measure - MLLW Disposed (m3)	Green
Measure - Clear three T-Plant canyon deck sections	Green
Measure - Remove two PUREX separation towers	Green
<b>Plutonium Stabilization:</b>	
Measure - Pu metal/oxides/other types dispositioned (items)	Yellow

Yellows noted above are behind schedule but recoverable, action plans in place. Red is either missed or unrecoverable. Details can be found in the Project Sections.

## **KEY INTEGRATION ACTIVITIES**

The following are the key technical integration activities that are currently underway and cross project/contractor lines. These activities are being addressed by inter-discipline and inter-project groups and demonstrate that Hanford Site contractors are working together to accomplish the EM Clean up mission.

- Spent nuclear fuel (SNF) final disposition interface activities, including OCRWM QA Program implementation, ongoing with National SNF Program.
- SNF Project fuel removal acceptance criteria and conceptual design reviews for 324 Building (B Cell) ongoing with River Corridor Project.
- K Basins sludge removal and Shippingport (PA) Pressurized Water Reactor Core 2 SNF removal implementation activities ongoing with Waste Management.
- WM working with DOE-RL, DOE-HQ and other Sites to develop and define Hanford's role in disposing of waste from other sites. Hanford's role as one of the identified LLW/MLLW disposal sites for the Complex is yet to be fully defined.
- WM working with PNNL, EM-50 and Mixed Waste Focus Area (MWFA) to obtain funding in support of mixed waste processing.
- Nuclear Material Stabilization Project continues working with PNNL on activities associated with the  $Mg(OH)_2$  process in order to accelerate the plutonium solution stabilization process, and polycube stabilization issues (gathering data for the SAR).
- Analytical Services continues to support BNFL efforts to establish required analytical support for glassification operations.
  - In the longer term, BNFL could utilize unused space at WSCF for cold run test support and process laboratory analytical equipment testing.
  - The 222-S laboratory, with some refurbishment might become a low cost option to a new large-scale laboratory associated with the glassification facility.
- Landlord is establishing a Hanford Site Planning Advisory Board made up of cooperating agencies and Tribal representatives.

## **UPCOMING PLANNED KEY EVENTS**

The following Key events are extracted from the authorized baseline and are currently expected to be accomplished during the next eight months. Most are Enforceable Agreement (EA), HQ or DNFSB Milestones.

### **Waste Management:**

- Complete Waste Isolation Pilot Project (WIPP) Certification of Hanford's Transuranic (TRU) Project and initiate TRU shipments in June 2000.

- Treat 1,160 cubic meters (includes 100 cubic meters stretch) of MLLW at ATG by August 2000; dispose of Land Disposal Restriction compliant waste by September 2000.
- Retrieve 425 drums of suspect TRU waste from the Low-Level Burial Grounds by September 2000.
- Accelerate Readiness to Receive Spent Nuclear Fuel K Basin Sludge.
  - Clear three sections of the T Plant Canyon deck in FY 2000.
  - Complete entire deck clearing by the end of FY 2001.

**Spent Nuclear Fuels:**

- Complete integrated subsystem testing of the Cold Vacuum Drying facility by the end of June.
- Deliver first shipment of Multi-Canister Overpack (MCO) baskets by June 1, 2000.
- Complete Cask Loadout System (CLS) startup testing by mid-June 2000.
- Begin DOE Operational Readiness Review (ORR) for fuel removal by mid-September 2000.
- Begin K West Basin fuel removal, drying & storage operations by November 30, 2000.

**River Corridor Project:**

- Complete all B Plant closeout activities by June 2000.
- Complete ISMS verification of Phase II readiness activities by June 2000.
- Issue the final report for the 300 Area Waste Acid Treatment System (WATS) Resource Conservation and Recovery Act (RCRA) Closure Activities by September 2000.
- Complete Removal of 324 Building Radiochemical Engineering Cell (REC) B Cell Mixed Waste (MW) and Equipment by November 2000.

**Nuclear Materials Stabilization:**

- Begin Pu solution stabilization via  $Mg(OH)_2$  in the 4th quarter of FY 2000.
  - Complete ORR and training activities.
- Startup Cementation operations in the 4th quarter of FY 2000.
- Continue metal stabilization processing in June 2000.

**Landlord**

- Complete Definitive Design for Project L-309, “Replace Portion of Main Water Lines,” which replaces approximately 1,500 feet of the sanitary water lines in 200 East Area by April 28, 2000.
- Complete Definitive Design for Project L-310, “Distribution Water Line” which replaces a 2.5-mile section of the 24” export water line in the 200 West Area by May 26, 2000.