

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. The information is current as of the dates noted.

The section begins with a description of notable accomplishments that have occurred during the month 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 Key Integration Activities section follows next, highlighting Site 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 DECEMBER 31, 1999

- The 300 Area Fuel Supply Shutdown project is on schedule to meet the submittal of the final closure plan due on March 31, 2000.
- The Accelerated Deactivation project is making progress towards the disposition of approximately 1,865 metric tons (MT) of Hanford Unirradiated Uranium.
- Waste Management prepared for the Carlsbad Area Office Audit of Hanford's TRU Project to meet requirements of the new Part B Waste Isolation Pilot Plant (WIPP) Resource Conservation and Recovery Act Permit.
- Waste Management shipped 42 cubic meters of mixed low-level waste to ATG Inc. ATG initiated site treatment of this waste type December 22, 1999.
- DOE Richland Operations Manager Keith Klein toured the Waste Sampling and Characterization Facility (WSCF) and the 222-S Laboratory. At WSCF, Klein recognized the facility's six years without a lost day of work due to injury, since opening in October 1993.
- A total of 164 cans of plutonium oxides and sludges have been stabilized through thermal stabilization. By month's end, a total of 13 liters of plutonium nitrate solution were stabilized in the prototype vertical denitration calciner.
- The Canister Storage Building (CSB) is 94 percent complete, compared to 96 percent planned. The Cold Vacuum Drying (CVD) Facility is 92 percent complete compared to 94 percent planned.

Further details regarding the above accomplishments may be found in the individual Project Sections.

PERFORMANCE DATA AND ANALYSIS AS OF DECEMBER 31, 1999

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 (\$4.9 million) unfavorable cost variance that is within the established +10/-5 percent threshold.

Schedule Performance — There is a FYTD thirteen percent (\$17.2 million) unfavorable schedule variance.

Data Through December 1999

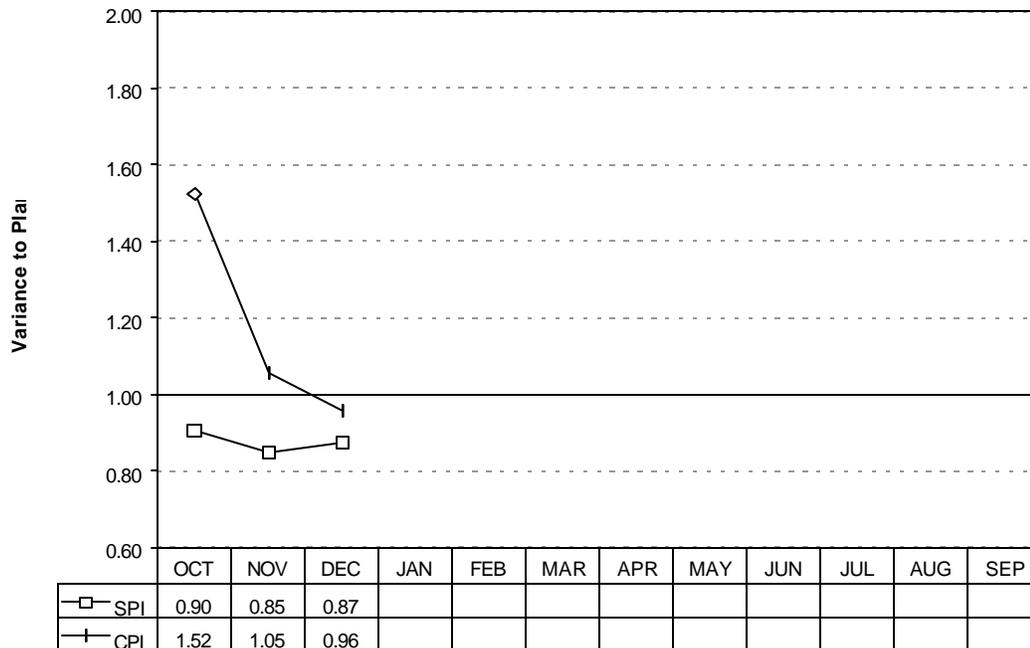
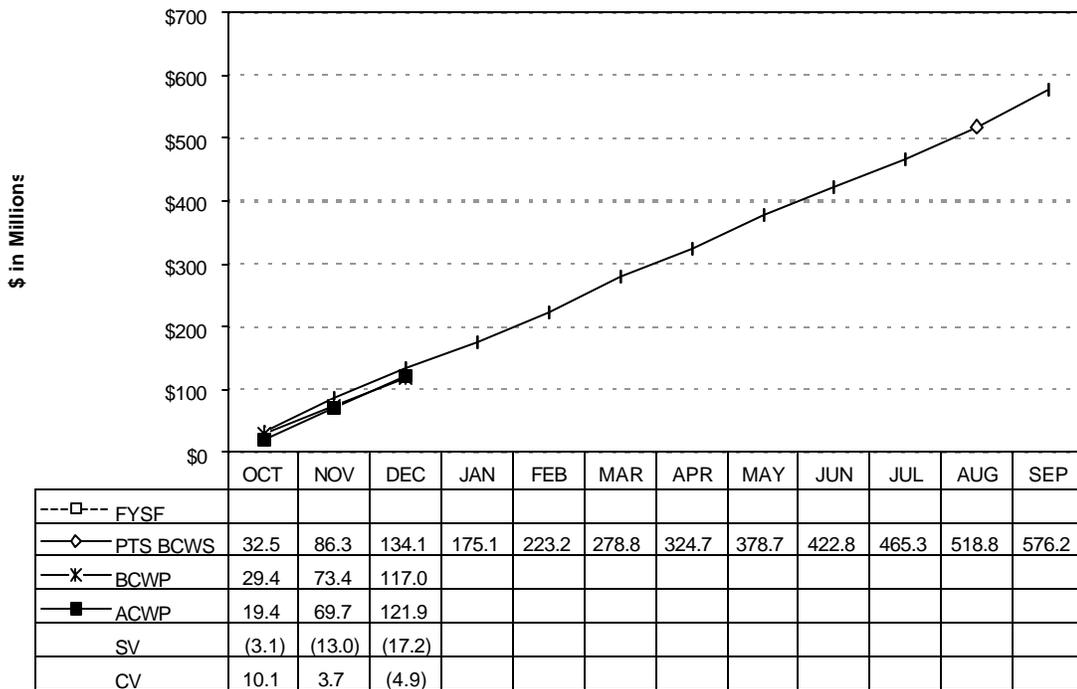
	Total FY PTS	Current Fiscal Year Performance (\$ x Million)					
		FYTD			Schedule Variance	Cost Variance	
		BCWS	BCWP	ACWP			
1.2 Waste Management TP02,WM03-05	105.2	23.5	21.9	20.8	(1.6)	1.1	
1.2.4 Analytical Svcs (222-S,HASP,WSCF) WM06	25.7	5.9	5.8	6.4	(0.1)	(0.6)	
1.3 Spent Nuclear Fuel WM01	195.1	43.5	33.8	44.6	(9.7)	(10.8)	
1.4.5 Nuclear Materials Stabilization TP05	127.9	30.6	27.3	21.8	(3.3)	5.4 *	
1.4 River Corridor TP01,TP04,TP08,TP10,TP12,TP14	58.2	12.9	11.4	11.3	(1.5)	0.1	
1.5 Landlord TP13	0.0	0.0	0.0	1.5	0.0	(1.5)	
1.8 Mission Support OT01, OT04	28.1	10.3	9.8	9.1	(0.5)	0.8 *	
1.9 HAMMER HM01	5.5	1.3	1.3	1.2	0.0	0.0 *	
1.12 Advanced Reactors (EM)	1.3	0.3	0.3	0.3	0.0	0.0	
PHMC EM Clean-Up Projects	547.0	128.3	111.6	117.0	(16.7)	(5.4)	
1.11 National Programs OT02-03, OT06, WM07	5.8	1.1	1.1	0.7	0.0	0.3	
Technology Development (EM-50)	23.4	4.9	4.3	4.0	(0.6)	0.3	
Total Other Projects	29.2	6.0	5.4	4.7	(0.6)	0.7	
Total PHMC Projects	576.2	134.1	117.0	121.9	(17.2) *	(4.9) *	

Rounding *

Notes: Column headings (BCWS, BCWP, 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 PTS BCWS. Advanced Reactors (EM) have included steam.

The following Cost/Schedule and Variance to Plan charts provide an overall graphical view of fiscal year to date performance. In addition, the first chart shows the budget phasing for the entire year. The second chart portrays cost and schedule performance indicators.

FY 2000 Cost / Schedule Performance
Cumulative to Date Status



MILESTONE PERFORMANCE AS OF DECEMBER 31, 1999

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.

Environmental Management Performance Report – December 1999
Section A –Executive Summary

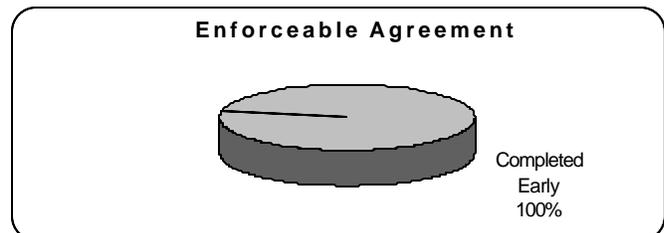
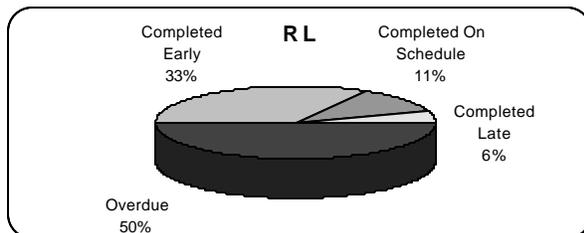
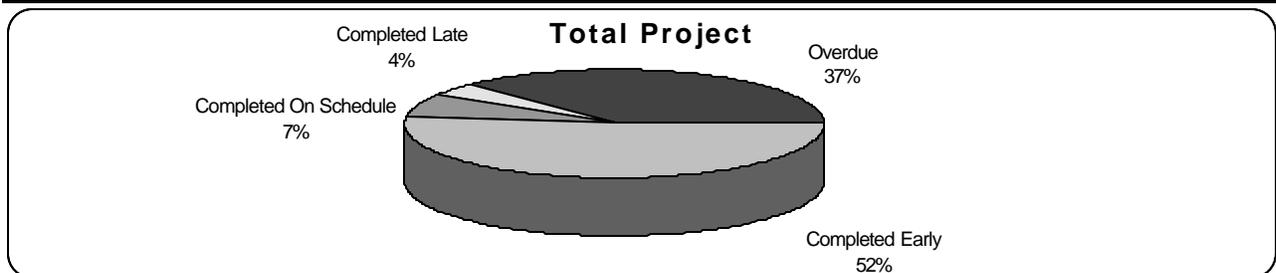
FYTD milestone performance (Enforceable Agreement [EA], U.S. Department of Energy-Headquarters [DOE-HQ], and RL) shows that 16 of 27 approved baseline milestones (59 percent) were completed on or ahead of schedule; 1 milestone (4 percent) was completed late; and 10 milestones (37 percent) are overdue. The 10 overdue milestones are associated with four projects: Nuclear Material Stabilization—one, River Corridor—two, Environmental Management (EM)-50—six, and Spent Nuclear Fuel—one. These overdue milestones do not share a common cause.

In addition to the FY2000 milestones described above, there are eight overdue milestones from prior fiscal years (FY1998 and FY1999). Further details regarding these milestones may be found in the Project Sections.

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.”

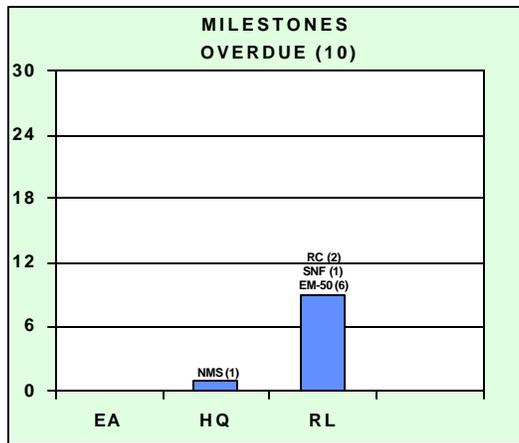
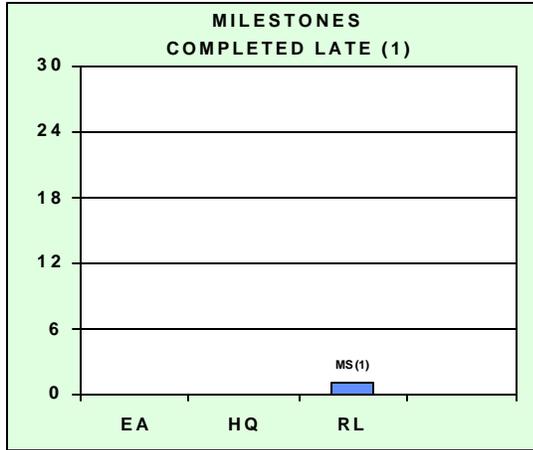
FY 2000 information reflects the current approved baseline. Changes in both the number and type of milestones from month to month are the result of Baseline Change Requests (BCRs) approved during the year.

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	8	0	0	0	1	15	0	24
DOE-HQ	0	0	0	1	0	9	4	14
RL	6	2	1	9	0	91	15	124
Total Project	14	2	1	10	1	115	19	162

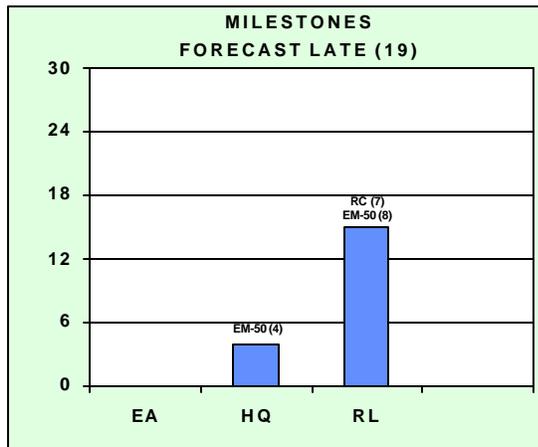


M ILESTONE EXCEPTIONS

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 AS OF DECEMBER 31, 1999

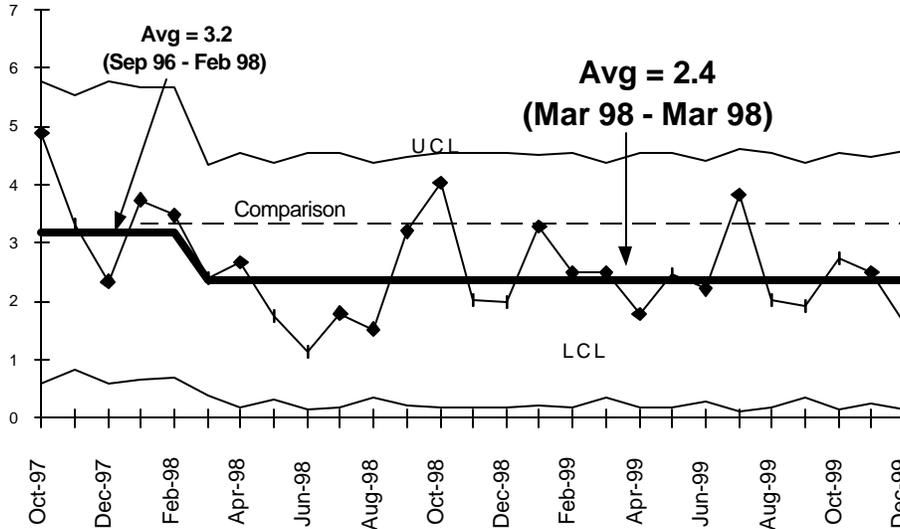
The focus of this section is to document trends in accidents. Improvements in these rates are due to the efforts of the PHMC workforce as they implement the Integrated ES&H Management System (ISMS), work towards achieving Voluntary Protection Program (VPP) “star” status, and accomplish work through Enhanced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

SIGNIFICANT SAFETY AND HEALTH EVENTS

PHMC Statistics — Rates have been stable over nearly two years. This plateau has been recognized, and Fluor Hanford kicked off its Integrated Safety Approach initiative on December 6,

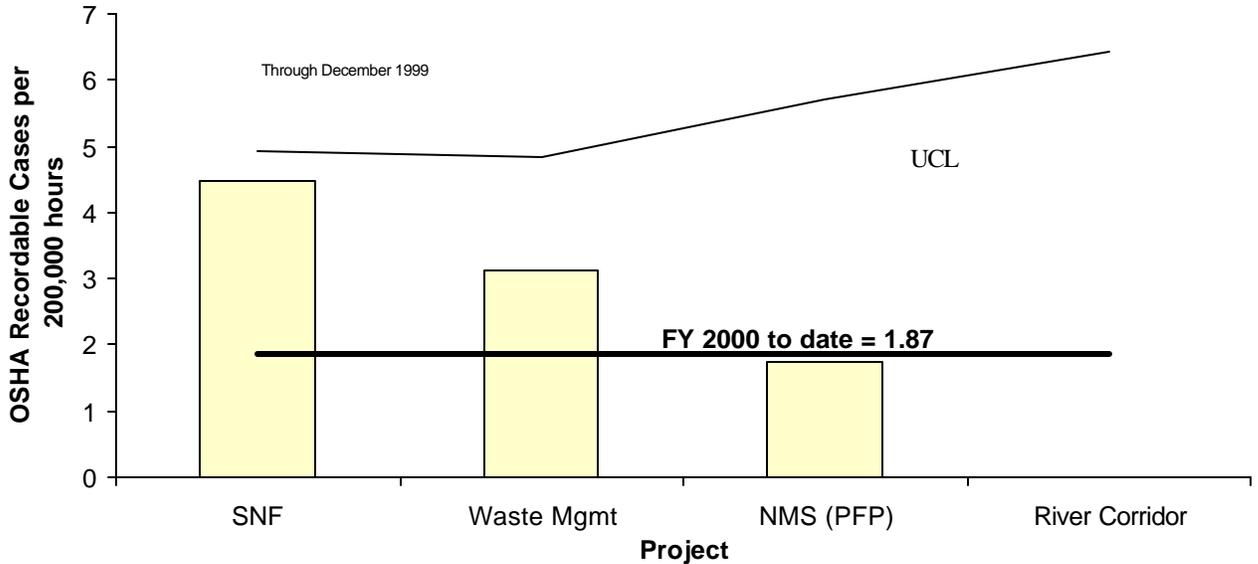
1999 in order to take safety performance to a new level. This initiative focuses upon the "people side" of accident prevention.

Total OSHA Recordable Case Rate



FY 1999 = 2.5
 FY 2000 = 2.3
 Contractor Comparison Average = 3.3
 This indicator has been stable since March 1998. The PHMC does recognize that this data has "plateaued" and is committed to taking action to gain a new reduction in injury rates.

OSHA Recordable Case Rate

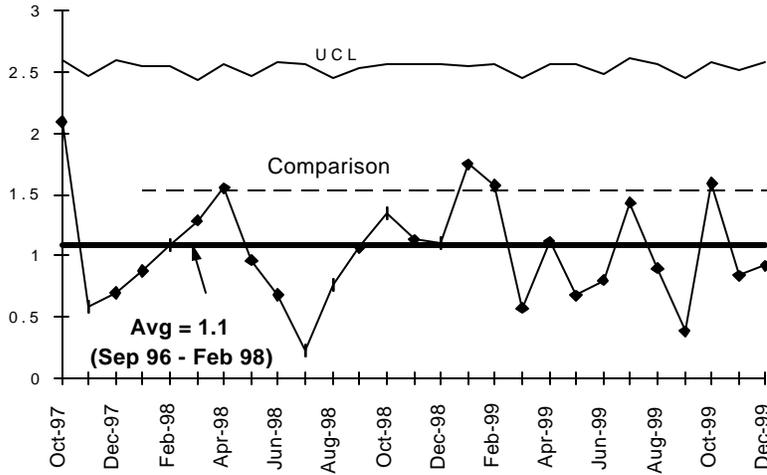


This graph reflects the project reorganization at the PHMC for FY 2000. There are four major projects, Spent Nuclear Fuels (SNF), Waste Management Project, Nuclear Material Stabilization (NMS), and River Corridor Project.

River Corridor Project has shown a significant improvement in its case rates.

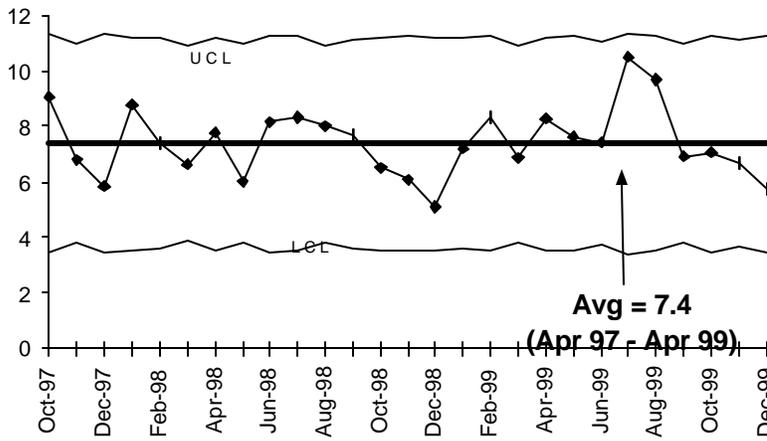
SNF is showing some adverse trends in the beginning of FY 2000 as compared to FY 1999. Waste Management Project has been stable at relatively high case rate levels.

OSHA LOST/RESTRICTED WORKDAY CASE RATE



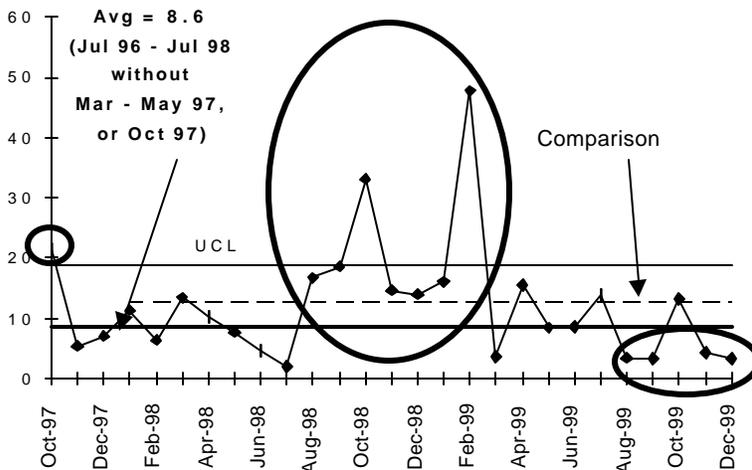
FY 1999 = 1.0
 FY 2000 to date = 1.1
 Contractor Comparison
 Average = 1.5
 The data have been stable
 for the past two years.

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. The previously
 noted summer 1999
 increase reduced due
 case reclassifications.

DOE Safety Cost Index



FY 1999 = 14.8
 FY 2000 to date = 6.9
 Contractor Comparison
 Average = 12.8
 There has been a long term
 cycle over the past three
 years of decreases for 7 to 8
 months, followed by
 increases. Past 4 of 5
 months have been one
 standard deviation below
 average, a significant
 decrease.

CRITICAL ISSUES AS OF DECEMBER 31, 1999

- **B CELL CLEANOUT SIX MONTHS BEHIND SCHEDULE**

The 324 B Cell cleanout effort continues to experience delays as a result of systems and equipment failures. Extensive effort by the facility is focused on crane repairs. Recovery of schedule is expected through the implementation of the updated PMP recovery plan, shift work and an accelerated shipping schedule.

- **WIPP CERTIFICATION REQUIREMENTS**

Changing WIPP Certification requirements may cause certification and initial shipment of TRU waste to slip by at least 4 weeks. Negotiations between the DOE Waste Management Division, Waste Management Project and Carlsbad Area Office will continue.

EM CORPORATE PERFORMANCE MEASURES AS OF DECEMBER 31, 1999

Performance Measures	FY 2000 Current Baseline	FYTD Planned	FYTD Actual
Facilities Deactivated/Decommissioned			
Facilities deactivated	21	4	5
Facilities decommissioned	0	0	0
TRansUranic (TRU) Waste			
Stored - total inventory (m ³)	16 333	16 333	16 347
Treated (m ³)	0	0	0
Disposed (shipped to DOE site m ³)	35	0	0
High Level Waste			
Treated (m ³)	3 600	0	0
Mixed Low Level Waste			
Stored - total inventory (m ³)	8 567	9 099	9 318
Treated (m ³)	1 060	280	0
Low Level Waste			
Stored - total inventory (m ³)	180	180	180
Disposed (on-site/commercial) (m ³)	6 936	2 234	1 032
Material Stabilized			
Plutonium Oxide (cans)	140	47	164
Plutonium Solution (L)	255	0	13
Uranium in other forms (kg)	17	17	17
Technology Deployments			
	21	23	23
Pollution Prevention			
HAZ (MT)	48	45	5
SAN (MT)	1 781	1 781	182
LLW (m3)	494	469	69
MLLW (m3)	146	139	22
Cleanup/Stabilized Waste Avoided			
FY 1999 planned baseline amount (m ³)	1 920	1 920	1 386
FY 2000 planned baseline amount (m ³)	1 926	1 926	N/A

All of the above reflect the year end status. For deviations +/- 10% see the

All of the above reflect the first quarter status. For deviations +/- 10%, see the following project sections: MLLW treatment - Waste Management Project; and Materials Stabilized, Plutonium Oxide and Solution – Nuclear Materials Stabilization Project.

MAJOR COMMITMENTS AS OF DECEMBER 31, 1999

Milestones	Due Date	Forecast Date	Actual Date	Status / Comments
Nuclear Materials Stabilization				
Install 2 LANL Pyrolysis Units for Stabilization of Polycubes (TRP-00-500)	12/31/99	N/A		Proposed Deletion
Deliver Core Sample Data Pkgs. for TANK 241Z361DISP (M-015-37B)	5/31/00	5/31/00		
Mission Support				
Biennial Assess. of Info. & Data Access Needs EPA/ECO (2000-2046)	3/31/00	3/31/00		
Submit an Annual Hanf Land Disposal Rest Rept (For FY 2000-2046) (M-026-011)	4/23/00	4/23/00		
Spent Nuclear Fuels				
Complete KW CASK Facility Mods (M-034-14A)	2/29/00	2/29/00		
Provide Remedial Design report to EPA (M-034-04)	3-31-00	3-31-00		
Waste Management				
Issue Transuranic/Transuranic-Mixed Waste PMP (M-091-03)	6/30/00	6/30/00		
Complete Construction CH TRU/TRUM Retrieval Facility (M-091-04)	9/30/00	9/30/00		

CRITICAL FEW PERFORMANCE MEASURES AS OF DECEMBER 31, 1999

Performance Measure	Status as of December 31, 1999
Spent Nuclear Fuel:	
Measure - Amount of fuel removed	
Declaration of Readiness to move SNF and Phased Startup Initiative Phases I & II	Yellow
K-East Fuel Retrieval System facility modifications to allow FRS installation	Yellow
Measure - Amount of SNF Stabilized	NA FY 2000
324/327 Building Deactivation:	
Measure - Number of buildings dispositioned	Green
Waste Management:	
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
Plutonium Stabilization:	
Measure - Pu metal/oxides/other types dispositioned (items)	Yellow

Yellows noted above are behind schedule but recoverable, action plans in place.

KEY INTEGRATION ACTIVITIES AS OF DECEMBER 31, 1999

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.

- 1) **Activity:** 324 Building SNF removal.
 Interface: SNF/River Corridor Project
 Status: An Acceptance Criteria was issued by the SNF Project to establish conditions for receipt of the SNF from the 324 Building. 324 Building B-Cell Cleanout Project along with the SNF project has developed an alternative plan for the fuel removal activity. Pending documentation, RL approval will be requested.
- 2) **Activity:** Complete National Facility Deactivation Initiative (NFDI) DOE-complex Implementation Plan.
 Interface: River Corridor Project / Westinghouse Savannah River (WSR) / Oak Ridge / Idaho National Engineering and Environmental Laboratory (INEEL) / Rocky Flats Environmental Technology (RFET) / DOE-RL, SR, HQ
 Status: NFDI team developed MOU between DOE (SR, RL & HQ) and contractors (WSR, FH) for the deactivation planning at F Canyon, FB Line and associated facilities at SR. A resource loaded schedule for development of the Work Unit Library, field walk downs and estimating for ~ 40 facilities at INEEL was prepared. Also, survey reports on five pipeline facilities at the Oak Ridge, Tennessee site were completed along with the data consolidation in support of upcoming engineering study per Kaiser-Hill's request. The data will be used to compare the RFET site's needs with the Centralized Automated Modular Mobile (CAMM) solutions.
- 3) **Activity:** Canyon Disposition Initiative (CDI).
 Interface: River Corridor Project / Waste Management (WM) / Bechtel Hanford, Inc.
 Status: Continued evaluation of U Plant internal structure condition from video. Briefed FH Project Acceleration team on CDI concept; concluded discussion with WM on CDI work scope ownership resulting in scope/funds/personnel to be transferred to WM.
- 4) **Activity:** Options Evaluation & Cold Demonstration for HLV Tank 105 inspection, sampling and decontamination.
 Interface: River Corridor Project / Pacific Northwest National Laboratory (PNNL) / other DOE sites
 Status: The study of HLV Tank 105, located in the 324 building is being conducted to demonstrate new technology in the deactivation of high dose radioactive tanks. This new technology has applications at other Hanford locations as well as other DOE sites. DOE-HQ is funding AEA Technologies to perform this effort, which was initiated in December.

- 5) **Activity:** Groundwater/Vadose Zone Integration.
Interface: BHI/PHMC/PNNL
Status: Multi-contractor team implementing an integrated site strategy for assessment of groundwater pathways.
- 6) **Activity:** Collaboration on procurement of Experimental Breeder Reactor (EBR)-II casks and revision to existing EBR-II Safety Analysis Report for Packaging (SARP) to reduce procurement costs and the number of EBR-II Cask SARP revisions
Interface: PNNL/PHMC-Nuclear Material Stabilization
Status: It was determined that current changes to the SARP, which are being performed as a result of Facility Stabilization's plans to use the EBR II Cask for disposal of 324 Building spent fuel, may already bound the types and quantities of spent fuel for use by PNNL. PNNL obtained a final draft of the revised EBR II cask SARP and is still evaluating the revisions bound (i.e., how the set of parameters compare to) the PNNL material. This verification is expected to be completed in early CY-00. Preliminary indications are that the EBR-II will be acceptable. In addition the PHMC is reevaluating its need to use the EBR-II cask and may not proceed with procurement. PNNL has requested the PHMC to advise PNNL when this decision is made and if existing EBR-II casks can be transferred to PNNL for use.

UPCOMING PLANNED KEY EVENTS AS OF DECEMBER 31, 1999

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

Waste Management:

- Preparations for initial waste shipment to WIPP
 - WIPP certification audit (Waste Isolation Pilot Plant in Carlsbad New Mexico) at Hanford scheduled January 2000. (**NOTE: This item was completed in January**). Expect approval of the Hanford TRU Certification Program March/April 2000.
 - First shipment scheduled April 2000

Spent Nuclear Fuels:

- Initiate cold testing of KW Basin Fuel Retrieval System, January 2000

River Corridor Project:

- Complete 324 Building Project Management Plan, Rev 3, January 2000
- Move B Cell grout containers to A Cell for characterization/disposition, January 2000
- Remove 2A Rack from B Cell wall; initiate size reduction, February 2000
- Complete B Plant MOA commitments, February 2000
- Initiate 3-82B grout container shipments to CWC, February 2000
- Complete ISMS Readiness Review, February 2000
- Complete 224-T Process Cell Entry for characterization, February 2000
- Perform additional 60 of 300 planned transfers from 327 Facility Dry Storage Carousel, February 2000