

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 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 of 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 working as a team to accomplish the work. Concluding the Executive Summary, a forward-looking synopsis of Upcoming Planned Key Events is provided.

NOTABLE ACCOMPLISHMENTS

- The Technical Information Document and the Hanford Site (Radioactive and Hazardous) Waste Program Environmental Impact Statement were issued for internal review.
- PFP continued to make significant progress in thermal stabilization. A total of 99 cans of oxides and sludges have been stabilized through thermal stabilization. By month's end, a total of 10 liters of solution have been stabilized in the prototype vertical denitration calciner.
- Tri-Party Agreement milestone (M-34-15A-T1) for completion of installation of Process Equipment Skids, HVAC equipment, and other support equipment in the first two bays of the Cold Vacuum Drying (CVD) Facility was successfully completed in October.
- Fabrication of production Multi-Canister Overpack (MCO) baskets was initiated at the Hanford Site in October.
- The Integrated Safety Management System (ISMS) Phase I and Phase II Verification for the SNF Project was successfully completed in November.
- The Multi-Canister Overpack (MCO) Topical Report was approved by RL in November, reflecting continued progress in finalization of safety authorization basis documents for fuel removal from K Basins.
- All five groundwater pump and treat systems operated at or above the planned 90% availability during November. Preparations are underway for shutdown of all systems on December 29, as planned, to ensure no freezing problems will occur from potential Y2K issues.
- The 100-HR-3 Record of Decision (ROD) Amendment received regulator approval for the In-Situ REDOX Manipulation (ISRM) technology in October. This will allow the implementation of ISRM technology at the 100 D Area to reduce discharges of chromium-contaminated groundwater to the Columbia River.

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

PERFORMANCE DATA AND ANALYSIS

The following provides a brief synopsis of overall RL 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 nine percent (\$8.8 million) favorable cost variance that is within the established +10/-5 percent threshold.

Schedule Performance — There is a FYTD fifteen percent (\$18.1 million) unfavorable schedule variance.

Data Through November 1999

	Total FY PTS BCWS	Current Fiscal Year Performance (\$ x Million)				
		FYTD			Schedule Variance	Cost Variance
		BCWS	BCWP	ACWP		
1.2 Waste Management TP02,WM03-05	105.7	16.3	14.4	13.2	(1.8) *	1.2
1.2.4 Analytical Svcs (222-S,HASP,WSCF) WM06	25.6	3.9	3.9	4.0	(0.1)	(0.2) *
1.3 Spent Nuclear Fuel WM01	190.6	27.8	22.0	26.2	(5.8)	(4.2)
1.4.5 Nuclear Materials Stabilization TP05	127.9	20.6	17.4	13.0	(3.2)	4.4
1.4 River Corridor TP01,TP04,TP08,TP10,TP12,TP14	58.4	8.8	7.8	7.1	(1.0)	0.7
1.5 Landlord TP13	0.0	0.0	0.0	0.7	0.0	(0.7)
1.6 Environmental Restoration ER01-10	136.6	21.4	17.2	14.1	(4.2)	3.1
1.6.1 Groundwater/Vadose Zone VZ01	11.8	1.7	1.3	0.8	(0.3) *	0.5
1.7 Science & Technology ST01-02	14.4	2.2	1.9	1.9	(0.3)	0.0
1.8 Mission Support OT01, OT04	43.6	3.9	3.6	1.2	(0.3)	2.4
1.9 HAMMER HM01	5.5	0.9	0.4	0.7	(0.5)	(0.4) *
1.1 TWRS Regulatory Unit RG01	5.8	0.7	0.7	0.1	0.0 *	0.7 *
1.1.2/ Advanced Reactors (EM) 2.1.1.1.21 TP11	1.3	0.2	0.2	0.1	0.0	0.2 *
Total EM Clean-Up Projects	727.2	108.4	90.8	83.1	(17.7)	7.6
1.11 National Programs OT02-03, OT06, WM07	6.1	0.7	0.7	0.5	0.0	0.2
1.12 Advanced Reactors (NE) 2.1.1.1.21 MS01	41.8	6.4	6.3	5.4	(0.1)	0.9
Technology Development (EM-50)	23.7	3.4	3.1	2.9	(0.3)	0.2
Total Other Projects	71.6	10.5	10.1	8.8	(0.4)	1.3
Total RL Projects	798.8	118.9	100.9	92.1	(18.1)	8.8 *

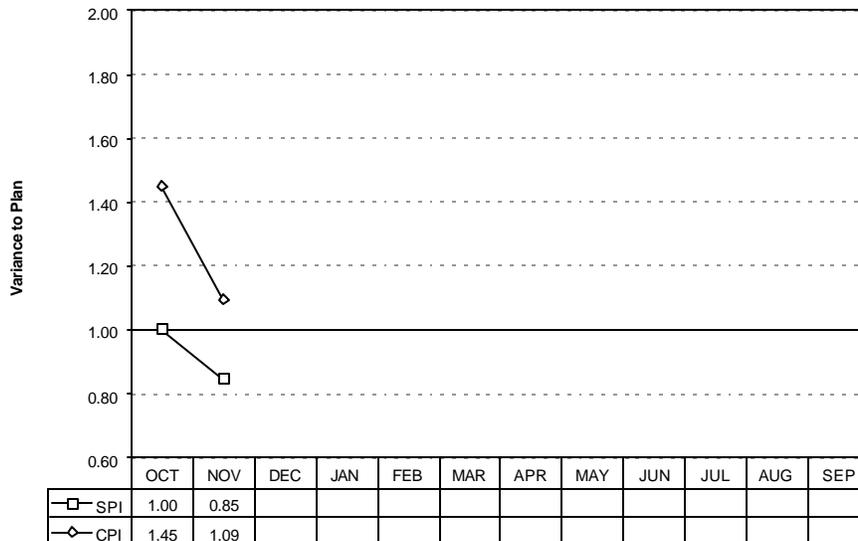
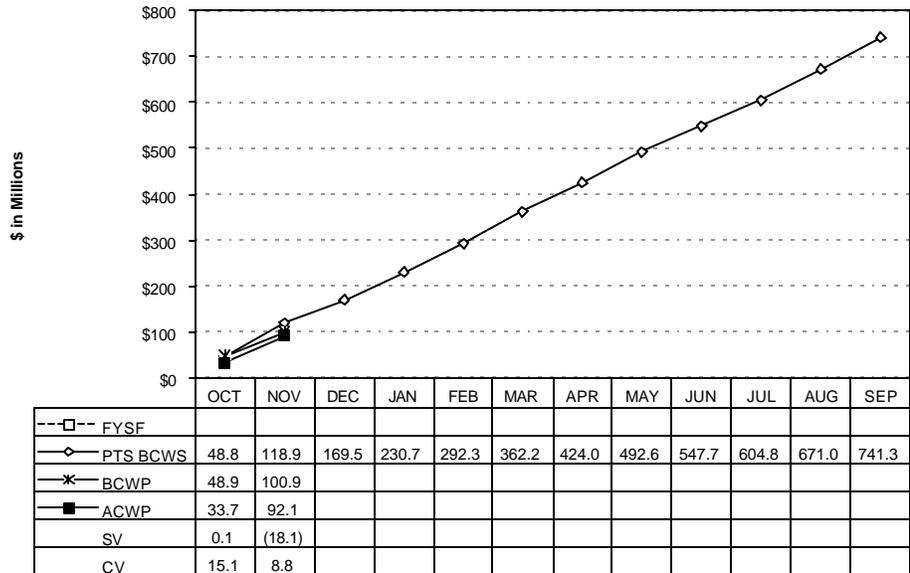
Rounding *

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.

- Above totals adjusted to delete HQ managed RL Program Direction (previously reported within Mission Support [OT05]).
- Waste Management has included RL-Directed costs (e.g. steam and laundry) in the PTS BCWS.
- Facility Stabilization PTS BCWS includes RL-Directed costs (e.g. steam and laundry).
- Technology Development excludes HTI BCWS.
- Advanced Reactors (EM) includes RL-Directed costs (e.g. steam and laundry).

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

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.



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 RL EM cleanup mission.

FYTD milestone performance (Enforceable Agreement [EA], U.S. Department of Energy-Headquarters [DOE-HQ], Field Office, and RL) shows that 17 of 24 approved baseline milestones (71 percent) were completed on or ahead of schedule; 0 milestones (0 percent) were completed late; and 7 milestones (29 percent) are overdue. The 7 overdue milestones are associated with five projects: Mission Support—one, Nuclear Material Stabilization—one, River Corridor—two, Environmental Management (EM)-50—two, and Regulatory Unit—one. These overdue milestones do not share a common cause.

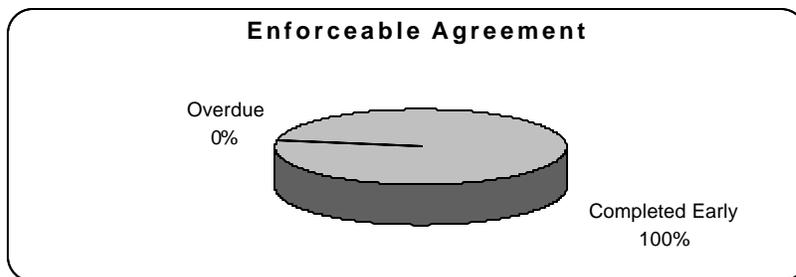
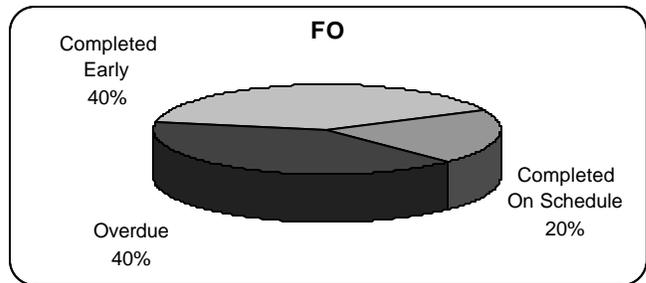
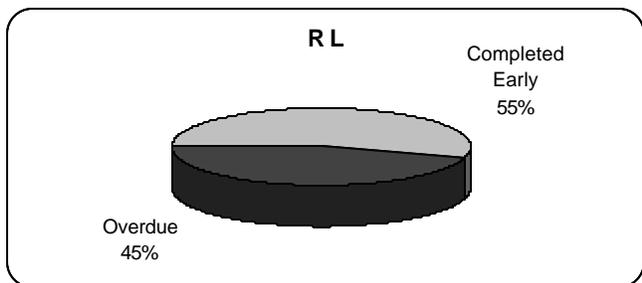
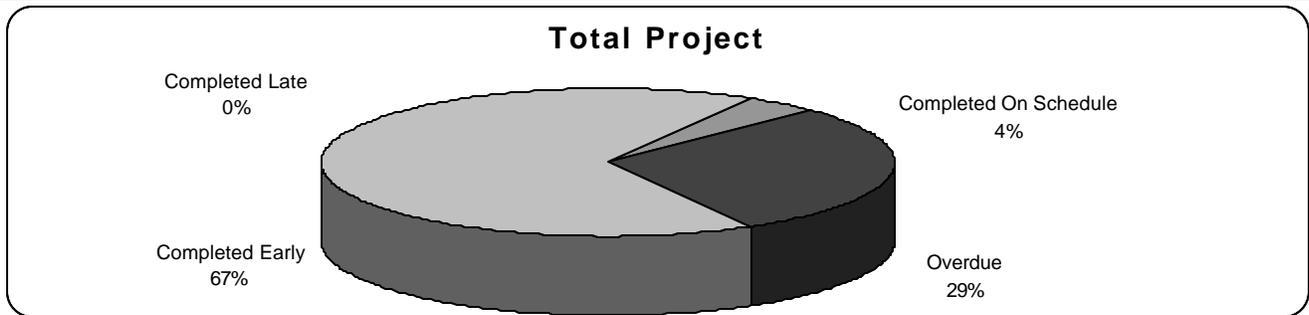
Environmental Management Performance Report – November 1999
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In addition to the FY2000 milestones described above, there are seventeen overdue milestones from prior fiscal years (FY1997, FY1998, and FY1999). Further details regarding these milestones may be found in the Project Sections.

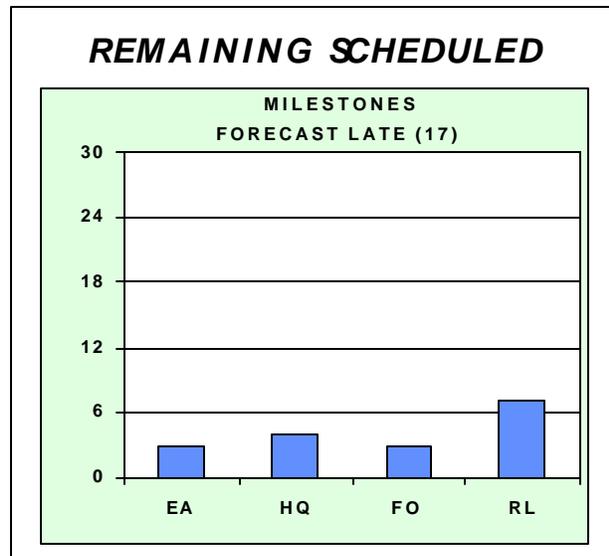
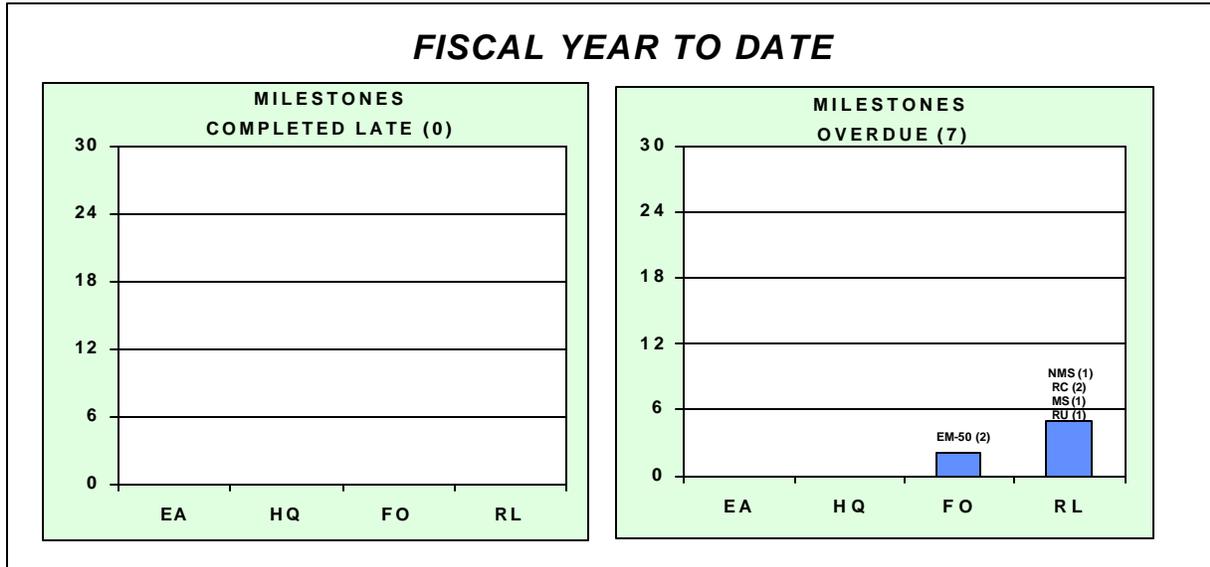
FY 2000 information is depicted graphically below and on the following page. For additional details related to the data in the graphs and prior year milestones, refer to the relevant project section titled “Milestone Exception Report.”

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	2	45	3	58
DOE-HQ	0	0	0	0	0	15	4	19
FO	2	1	0	2	0	64	3	72
RL	6	0	0	5	0	113	7	131
Total Project	16	1	0	7	2	237	17	280



MILESTONE EXCEPTIONS



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 accidents. Improvements in these rates are due to the efforts of the Hanford 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

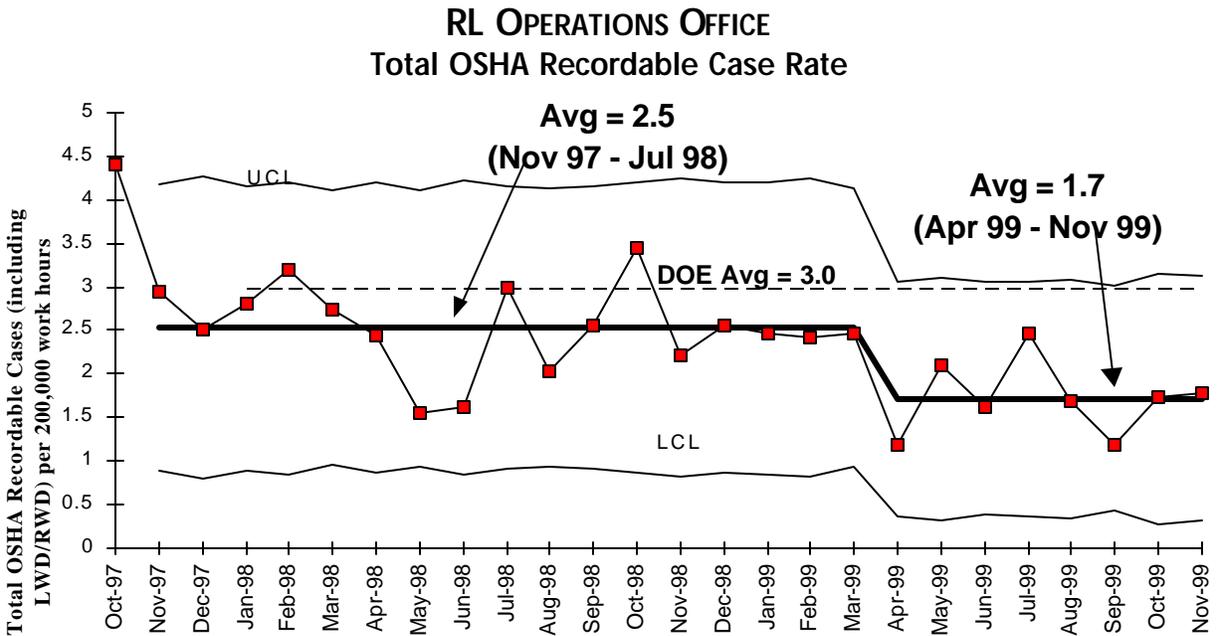
Hanford Statistics — The Tank Waste Remediation System (TWRS) data have been removed from the Hanford total charts, reflecting the project’s transfer from the Richland Operations Office to the Office of River Protection. All charts have new historical averages and control limits calculated to provide a consistent statistical trend analysis.

The total OSHA recordable case rate has significantly decreased over that past eight months. This decrease has been reflected by a new baseline average rate of 1.7 cases per 200,000 hours for April 1999 through November 1999. In comparison, the DOE overall OSHA recordable case rate was 3.0 for CY 1998.

PNNL Statistics — The PNNL OSHA recordable case rate has significantly decreased over the past nine months. Case reclassifications have removed the previously noted significant decrease in lost and restricted workday case rate. However, the past six months of data have been below average, and a seventh month will reestablish a significant decrease.

ERC Statistics — The ERC data have been stable.

PHMC Statistics — The PHMC rates have been stable over nearly two years. This plateau has been recognized, and Fluor Hanford Incorporated 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.

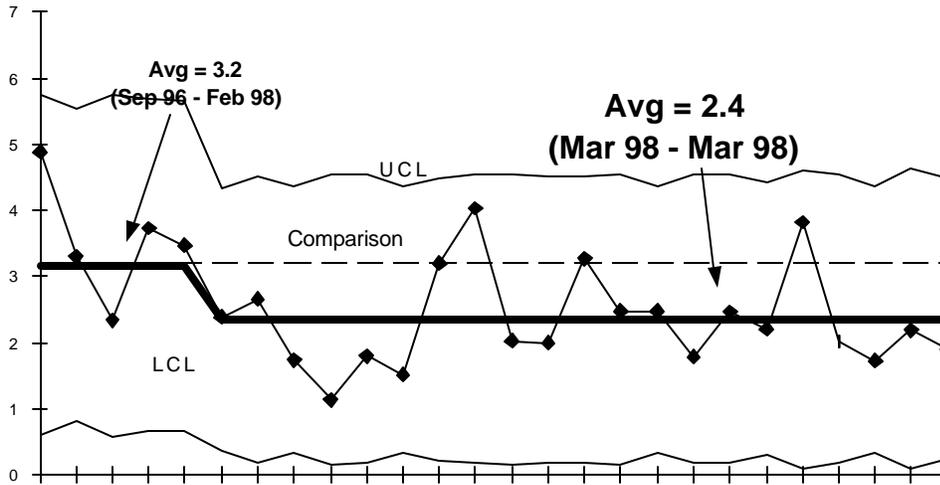


Long Term Trends: Sitewide OSHA Recordable Case Rate has demonstrated a consistent pattern of significant improvements, starting in October 1996. There has been a 50% reduction in the Hanford OSHA Recordable Case Rate, comparing FY 1999 (2.1 cases per 200,000 hours) to FY 1996 (4.2 cases per 200,000 hours).

Current Trends: The average and control limits have been revised using the April 1999 through November 1999 data. This revision was made because the criteria for a statistically significant decrease (at least seven points in a row below the previous average of 2.5) had been met.

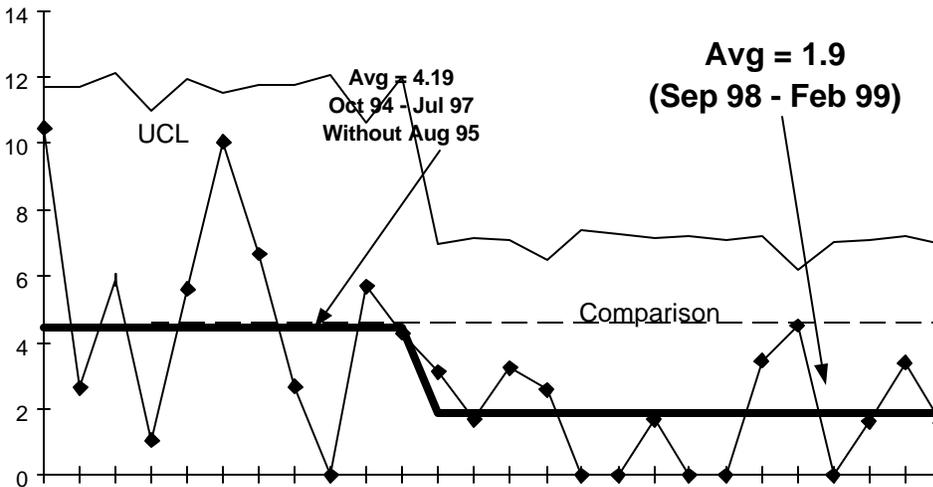
DOE Complex Averages: DOE and Contractors CY 98 Rate = 3.0, Contractor = 3.2, Construction = 4.6, Research = 3.2. Current performance levels on all graphs are below these comparison rates.

BY RL OPERATIONS OFFICE CONTRACT
Total OSHA Recordable Case Rate



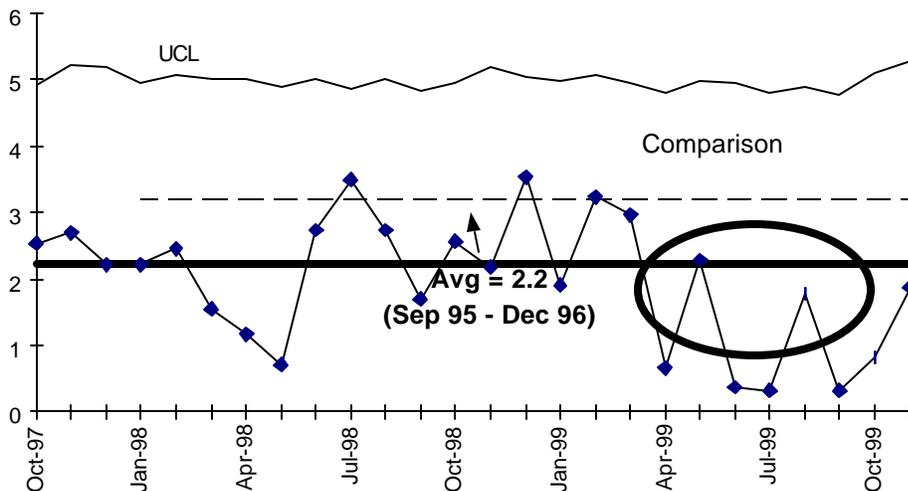
PHMC

FY 1999 = 2.5
 FY 2000 = 2.0
 Contractor Comparison Average = 3.2
 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.



ERC

12-Month Average
 Dec 98 - Nov 99 = 1.7
 No. of Cases for Nov 99 = 1
 Case Rate for Nov 99 = 1.6
 Construction Comparison Average = 4.6
 This indicator has been stable since September 1998

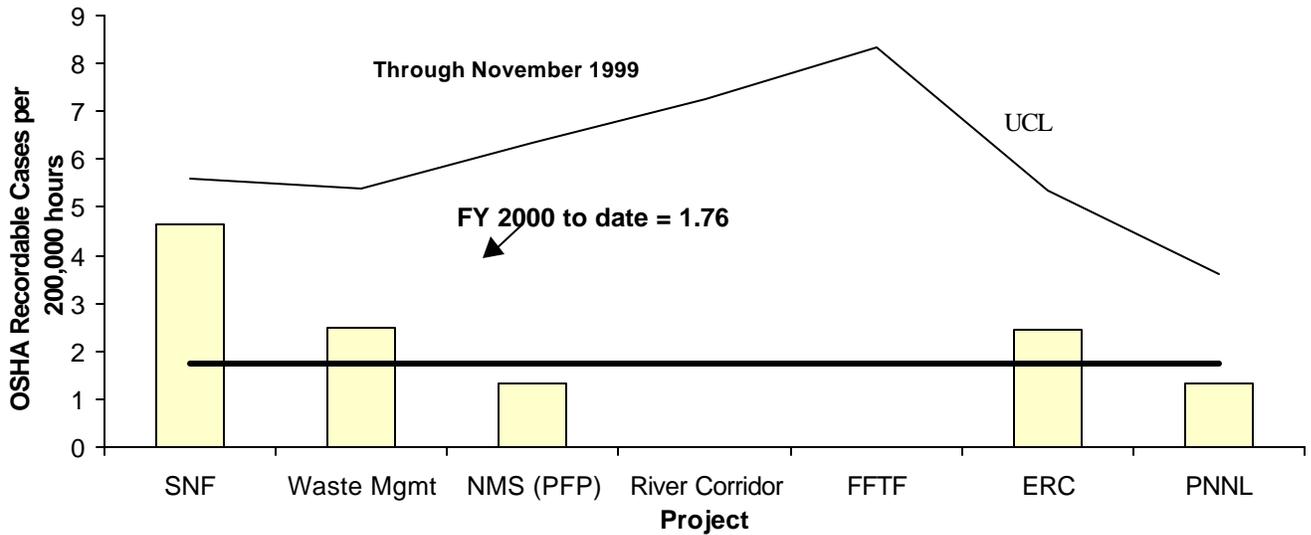


PNNL

FY00 = 1.3
 FY99 = 1.8
 Research Comparison Average = 3.2
 Six of seven months have been one standard deviation below average, a significant decrease.

ALL RL OPERATIONS OFFICE

OSHA Recordable Cases By Project



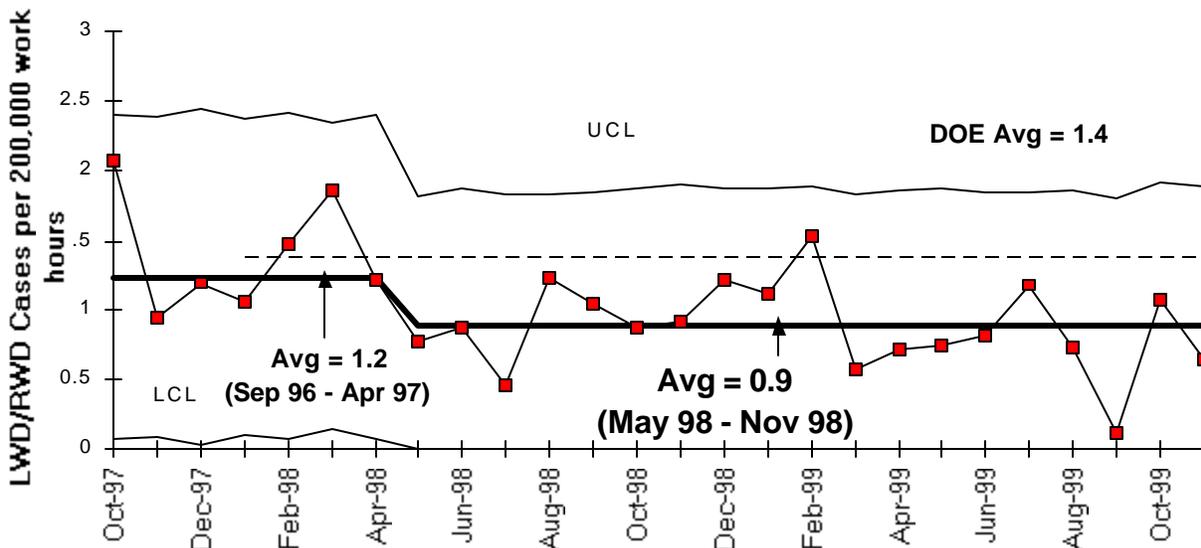
This graph reflects the project reorganization at the PHMC for FY 2000. There are five major projects, Spent Nuclear Fuels (SNF), Waste Management Project, Nuclear Material Stabilization (NMS), River Corridor Project, and the Fast Flux Test Facility (FTFF).

FTFF has not had an OSHA recordable case since September 1998, with more than 500,000 hours worked since that time. River Corridor Project has shown a significant improvement in its case rates. PNNL has also had a significant improvement in its OSHA recordable case rate.

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.

ALL RL OPERATIONS OFFICE

OSHA Lost/Restricted Workday Case Rate

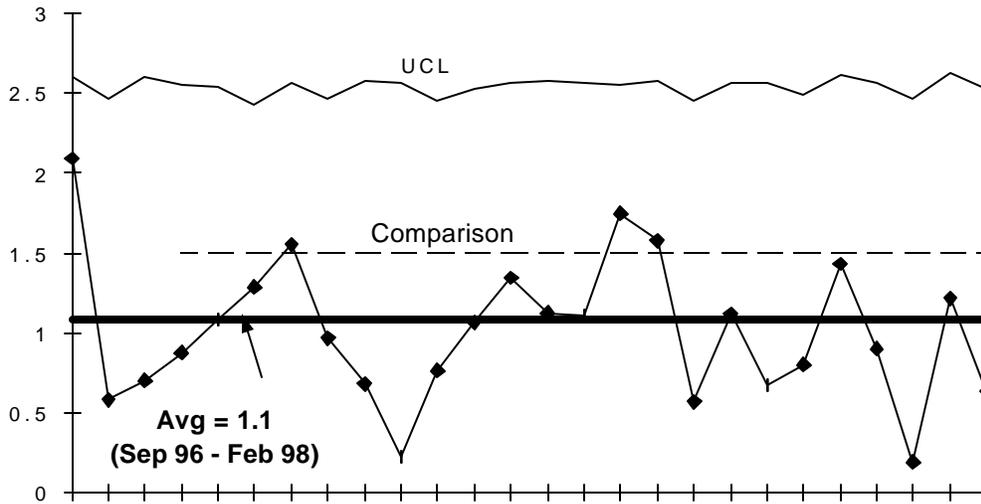


Long Term Trends: Sitewide Lost/Restricted Workday Case Rate has demonstrated a consistent pattern of significant improvements that started in October 1996. There has been a 47% reduction in the Hanford Lost/Restricted Workday Case Rate when comparing FY 1999 (0.8 cases per 200,000 hours) to FY 1996 data (1.5 cases per 200,000 hours).

Current Trends: Data have been stable since May 1998.

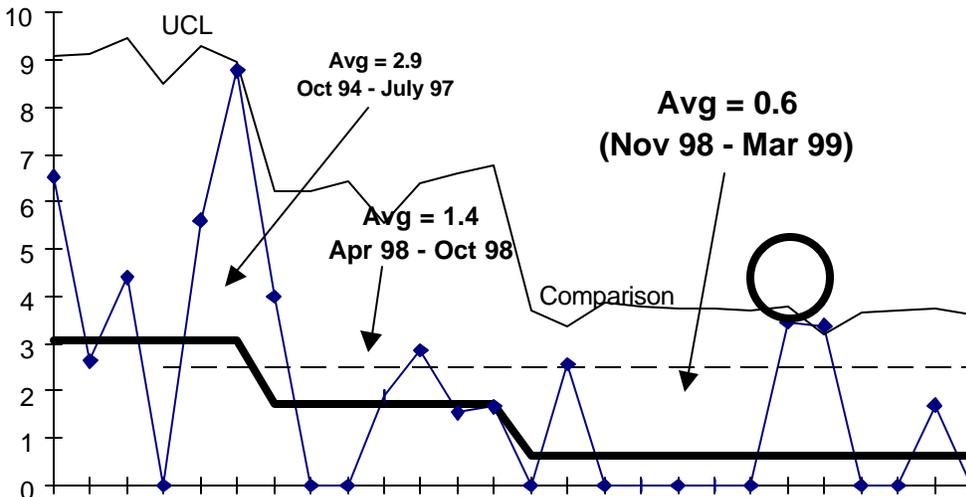
DOE Comparison Averages: DOE and Contractors CY 98 Rate = 1.4, Contractor = 1.5, Construction = 2.5, Research = 1.3. All current rates are less than these comparison rates.

BY RL OPERATIONS OFFICE CONTRACT
OSHA Lost/Restricted Workday Case Rate



PHMC

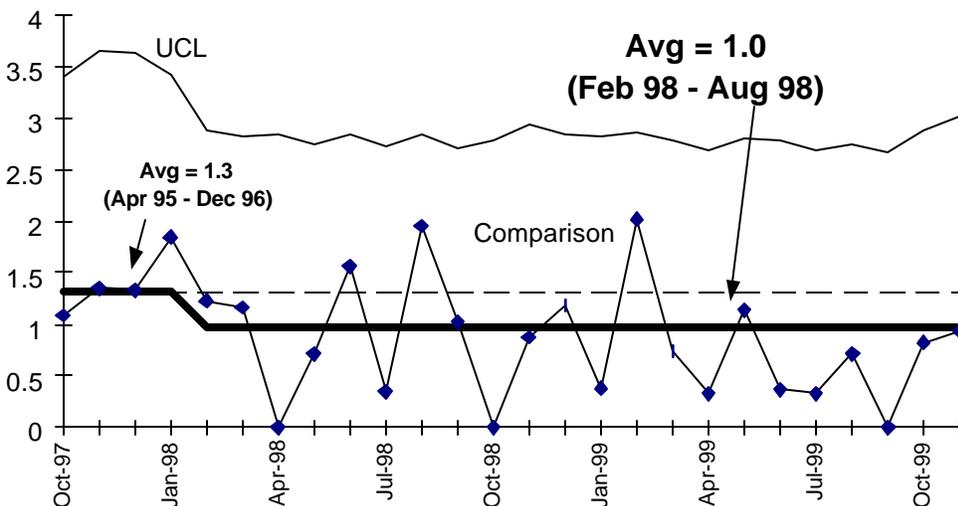
FY 1999 = 1.0
 FY 2000 to date = 0.9
 Contractor Comparison
 Average = 1.5
 The data have been
 stable for the past two
 years.



ERC

12-Month Average
 Dec 98 - Nov 99 = 1.0
 No. of Cases for
 Oct 99 = 0
 Case Rate for Oct 99 = 0
 Construction Comparison
 Average = 2.5

Significant increase in
 June and July due to an
 increase in minor strains.

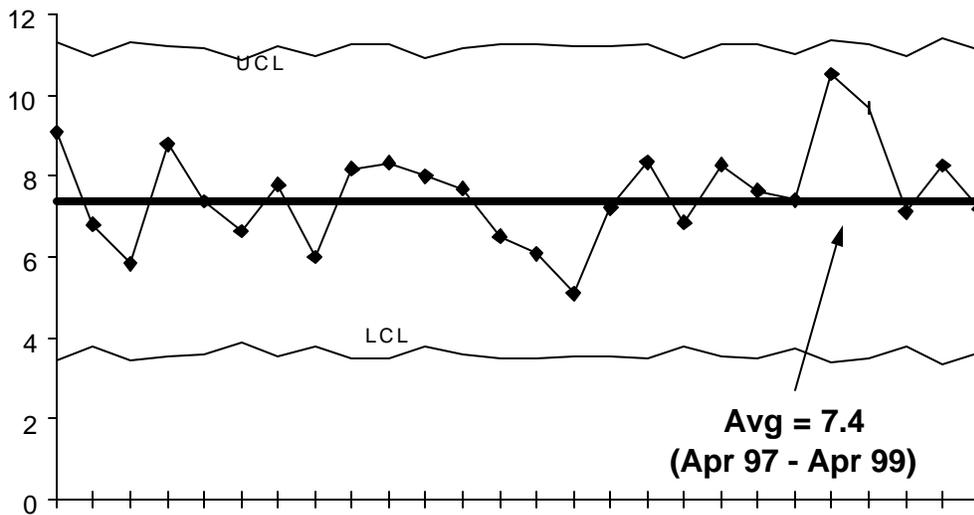


PNNL

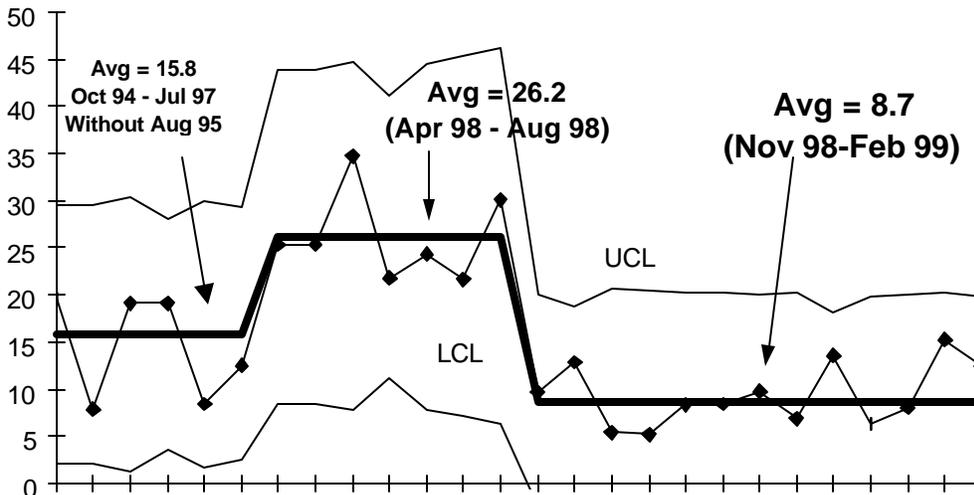
FY 00 To Date = 0.9
 FY 99 = 0.6
 Research Comparison
 Average = 1.3

The past six months
 have been below
 average, a seventh will
 be significant.

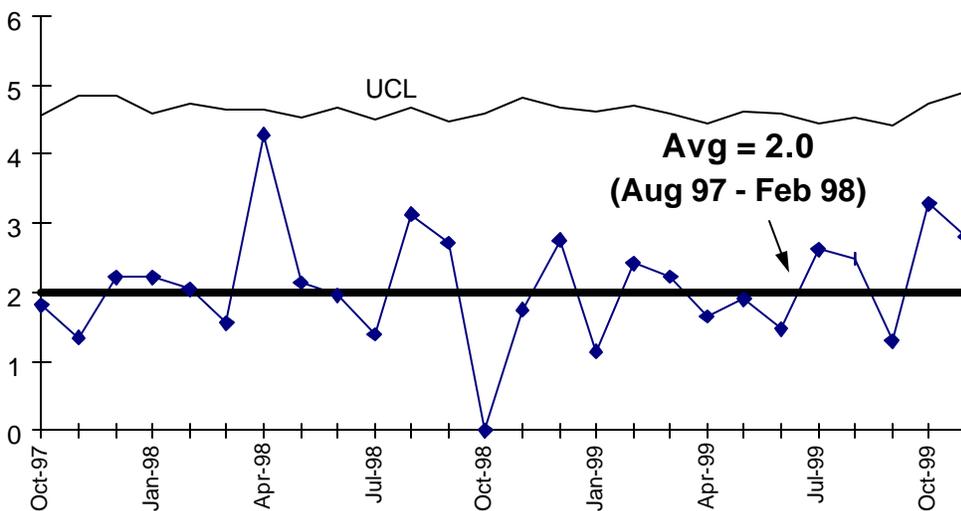
BY RL OPERATIONS OFFICE CONTRACT
First Aid Case Rate



PHMC
 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.



ERC
 12-Month Average Dec 98 - Nov 99 = 10
 No. of Cases Nov 99 = 8
 Rate for Nov 99 = 12
 Stable since rebaselining in November 1998.



PNNL
 FY 00 = 3.1
 FY 99 = 1.8
 First Aid Rate has remained stable since August 1997.

CRITICAL ISSUES

- **FFTF FY 2000 BUDGET**

The FFTF budget is significantly under the required funding of \$41.0M. If additional funds are not provided, the approved baseline scope will not be accomplished and additional actions will be required to reduce FFTF staffing levels.

- **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 Program Division, Waste Management Project and Carlsbad Area Office will continue.

KEY INTEGRATION ACTIVITIES

The following are the key technical integration activities that are currently underway and cross project/Site 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 Hanford Site missions.

- 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.
- 2) **Activity:** Disposition of sodium coolant.
Interface: CHG/PHMC-ART/Waste Management
Status: TWRS milestone M-50-03 confirmed that advanced pretreatment of High Level Waste will be required. If FFTF is shutdown, the baseline will be updated to incorporate the use of FFTF sodium to produce sodium hydroxide for tank waste pretreatment.
- 3) **Activity:** Groundwater/Vadose Zone Integration
Interface: BHI/PHMC/PNNL
Status: Multi-contractor team implementing an integrated site strategy for assessment of groundwater pathways.
- 4) **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

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. Expect approval of the Hanford TRU Certification Program
 - First shipment scheduled, February 2000
- Resume MLLW shipments to ATG for non-thermal treatment. Ship more than 500 ft³ of MLLW (treatment volume), December 1999

Spent Nuclear Fuels:

- RL approval of CVD FSAR and issuance of SER, December 1999
- Initiate cold testing of KW Basin Fuel Retrieval System, December 1999

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, January 2000
- Initiate 340 Facility accelerated deactivation tasks, January 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

Environmental Restoration:

- Excavate contaminated soil at 100 D Area, 100 H Area, and 300 Areas, Ongoing
- Submit U Pond/Z Ditches Cooling Water Group Work Plan (M-13-22), December 1999
- Complete All Remaining 100 Area Operable Unit Pre-ROD Site Investigations under Approved Work Plan Schedules (M-15-00A), December 1999
- Complete ERDF Cells 3 and 4 to Accept Remediation Waste (M-16-92B), December 1999
- Install RCRA Groundwater Monitoring Wells at Rate of Up to 50 in Calendar Year if Required (M-24-00K, M-24-41, (M-24-42, M-24-43, M-24-44, M-24-45), February 2000