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Revision 0

Environmental Management Performance Report - November 1999

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

Project Hanford Management Contractor for the
U.S. Department of Energy under Contract DE-AC06-96RL13200

**United States
Department of Energy**
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January 24, 2000

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Mr. G. M. Bell, Director
Analysis and Evaluation Division
U.S. Department of Energy
Richland Operations Office
Post Office Box 550
Richland, Washington 99352

Dear Mr. Bell:

CONTRACT NO. DE-AC06-96RL13200 - ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT - NOVEMBER 1999

Attached is DOE/RL-99-83, Revision 0, "Environmental Management Performance Report - November 1999," which was delivered to U.S. Department of Energy, Richland Operations Office on January 6, 2000, for final review and in bound copy on January 14, 2000. The Site Summary has been eliminated from this report; safety data formally in that Section is now in the Executive Summary. The report has also been organized to the new Fluor Hanford Project structure, breaking out Facility Stabilization into Nuclear Material Stabilization and River Corridor, separating Analytical Services from Waste Management, and other minor changes.

This report has been reviewed by Fluor Hanford's Site Planning and Integration management and your staff. Site Planning and Integration will continue to work with your staff regarding any additional enhancements to the report.

The monthly Environmental Management Performance Report is also available on the Internet. The website address is <http://www.hanford.gov/hspr/toc.htm>.

If you have any questions, no longer require the report in hard copy, or have problems accessing it electronically, please contact Mr. D. M. Eder of my staff at 376-0755.

Very truly yours,

G. J. McCleary, Director
Project Controls

cas

Attachment

RL - S. A. Sieracki w/o att.
V. Skinner w/o att.

Environmental Management Performance Report - November 1999

D.M. Eder
Fluor Hanford

<http://www.hanford.gov/hspr/toc.htm>

Date Published
January 2000

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

**United States
Department of Energy**

P.O. Box 550
Richland, Washington 99352

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November 1999

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Glossary

INTRODUCTION

The purpose of the Environmental Management Performance Report (EMPR) is to provide the Department of Energy Richland Operations Office's (DOE-RL's) report of Hanford's Environmental Management (EM) performance by:

- U. S. Department of Energy, Richland Operations Office,
- Project Hanford Management Contract (PHMC) through Fluor Hanford, Inc. (FHI) and its subcontractors,
- Environmental Restoration Contract through Bechtel Hanford, Inc. (BHI), and its subcontractors, and
- Pacific Northwest National Laboratories (PNNL) for EM and EM Science and Technology (S&T) Mission.

This report is a monthly publication that summarizes EM Site performance under RL Operations Office. The EM Science and Technology Mission is addressed on a quarterly basis.

Section A, Executive Summary, provides an executive level summary of the cost, schedule, and technical performance described in this report. It summarizes performance for the period covered, highlights areas worthy of management attention, and provides a forward look to some of the upcoming key performance activities as extracted from the Hanford baseline.

The remaining sections provide detailed performance data relative to each individual mission area (e.g., Waste Management, Spent Nuclear Fuels, etc.), in support of Section A of the report. A glossary of terms is provided at the end of this report for reference purposes.

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.

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 an 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	105.7	16.3	14.4	13.2	(1.8) *	1.2
TP02, WM03-05						
1.2.4 Analytical Svcs (222-S,HASP,WSCF)	25.6	3.9	3.9	4.0	(0.1)	(0.2) *
WM06						
1.3 Spent Nuclear Fuel	190.6	27.8	22.0	26.2	(5.8)	(4.2)
WM01						
1.4.5 Nuclear Materials Stabilization	127.9	20.6	17.4	13.0	(3.2)	4.4
TP05						
1.4 River Corridor	58.4	8.8	7.8	7.1	(1.0)	0.7
TP01, TP04, TP08, TP10, TP12, TP14						
1.5 Landlord	0.0	0.0	0.0	0.7	0.0	(0.7)
TP13						
1.6 Environmental Restoration	136.6	21.4	17.2	14.1	(4.2)	3.1
ER01-10						
1.6.1 Groundwater/Vadose Zone	11.8	1.7	1.3	0.8	(0.3) *	0.5
VZ01						
1.7 Science & Technology	14.4	2.2	1.9	1.9	(0.3)	0.0
ST01-02						
1.8 Mission Support	43.6	3.9	3.6	1.2	(0.3)	2.4
OT01, OT04						
1.9 HAMMER	5.5	0.9	0.4	0.7	(0.5)	(0.4) *
HM01						
1.1 TWRs Regulatory Unit	5.8	0.7	0.7	0.1	0.0 *	0.7 *
RG01						
1.12/ Advanced Reactors (EM)	1.3	0.2	0.2	0.1	0.0	0.2 *
2.1.1.1.21 TP11						
Total EM Clean-Up Projects	727.2	108.4	90.8	83.1	(17.7)	7.6
1.11 National Programs	6.1	0.7	0.7	0.5	0.0	0.2
OT02-03, OT06, WM07						
1.12 Advanced Reactors (NE)	41.8	6.4	6.3	5.4	(0.1)	0.9
2.1.1.1.21 MS01						
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
Section A –Executive Summary

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

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 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.

Environmental Management Performance Report – November 1999

Section A – Executive Summary

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.

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

BY RL OPERATIONS OFFICE CONTRACT
Total OSHA Recordable Case Rate

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 (FFTF).

FFTF 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

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

SECTION B:1

WASTE MANAGEMENT

PROJECT MANAGERS

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E. S. Aromi Jr., WMH
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SUMMARY

Waste Management consists of the Solid Waste Storage and Disposal, Project Baseline Summary (PBS) WM03, Work Breakdown Structure (WBS) 1.2.1; Solid Waste Treatment, PBS WM04, WBS 1.2.2; Liquid Effluents - 200 Area, PBS WM05, WBS 1.2.3.1; and the Waste Encapsulation and Storage Facility, PBS TP02, WBS 1.4.2.

All revised procedures were submitted to the Carlsbad Area Office (CAO) to comply with the Waste Isolation Pilot Plant (WIPP) Part B Permit.

The 200 Area Effluent Treatment Facility completed repairs and restarted operations following the acid spray event. A draft Accident Investigation Report was prepared with the final report expected by December 17, 1999.

Milestone performance (EA, DOE-HQ, Field Office, and RL) shows no milestones are due this reporting period.

ACCOMPLISHMENTS

- Disposed 29,600 ft³ (FYTD) of Low Level Waste (LLW) in the burial grounds.
- Processed 1.8 million gallons (FYTD) of wastewater through the 200 Effluent Treatment Facility supporting River Protection Project (RPP), ERC 200-UP-1 Groundwater, N-Basin Water, and ERDF Leachate.
- Completed non-destructive examinations (NDE) on 99 drums, nondestructive assay (NDA) on 27 drums, radiography on 1 box, and visual examinations of 12 drums (FYTD) at the Waste Receiving and Processing (WRAP) Facility.
- The Technical Information Document and the Hanford Site (Radioactive and Hazardous) Waste Program Environmental Impact Statement were issued as planned, for internal review.

COST PERFORMANCE (\$M):

	BCWP	ACWP	VARIANCE
Waste Management	\$14.4	\$13.2	+ \$1.2

The \$1.2 million (8.3 percent) favorable cost variance is within established threshold. Further information at the PBS level can be found in the following Cost Variance Analysis details.

SCHEDULE PERFORMANCE (\$M):

	BCWP	BCWS	VARIANCE
Waste Management	\$14.4	\$16.3	- \$1.8*

*Rounding

The \$1.8 million (11.1 percent) unfavorable schedule variance is due to delays in the ATG construction, TRU production delays, the shutdown of the 200 Area ETF, and a hold on the WESF Safety Analysis Report. Further information at the PBS level can be found in the following Cost Variance Analysis details.

ISSUES

Changing WIPP Certification requirements may cause certification and initial shipment to slip by at least 4 weeks.

Strategy/Status: Continue negotiation between DOE -RL Waste Management Division, Waste Management Project and Carlsbad Area Office. An audit is scheduled at Hanford for the week of January 24, 2000. The first shipment is scheduled for late February 2000, following the expected approval of the Hanford TRU Certification Program.

The Waste Management Programmatic Environmental Impact Statement (PEIS) is expected to be issued in the near future. The Records of Decision (ROD) for LLW and MLLW will affect Hanford's disposal role for the Complex. The ROD outcomes may have a significant impact on disposal volumes and rates at Hanford.

Strategy/Status: Identification of DOE's notice of preference for the Waste Management Program LLW and MLLW disposal sites was published in the Federal Register on December 10, 1999. DOE will issue a ROD for LLW and MLLW treatment and disposal no sooner than 30 days after publication of the Notice.

Some current waste streams do not meet the Double Shell Tank (DST) system acceptance criteria. Waste Management is pursuing alternative disposition pathways for the 221-T tank system waste stream due to the presence of TSCA regulated PCBs.

Strategy/Status: WMH is working with FDH and DOE-RL to ensure a strong consolidated approach to compliant and effective PCB waste management. WMH has established a team to identify and propose paths for waste storage, treatment, and disposal alternatives to the DST system. Interim measures to enable continued operations are underway.

WASTE MANAGEMENT WBS 1.2

FY 1999 COST/SCHEDULE PERFORMANCE - ALL FUND TYPES

Cumulative to Date Status

□	FYSF												
◇	PTS BCWS	6.6	16.3	23.8	31.6	39.9	49.8	58.2	68.5	76.3	84.1	94.5	105.7
*	BCWP	6.2	14.4										
■	ACWP	3.7	13.2										
	SV	(0.5)	(1.8)										
	CV	2.5	1.2

□	SPI	0.93	0.89
◇	CPI	1.66	1.09

WASTE MANAGEMENT WBS 1.2 / 1.4.2

			FYTD					AUTH	PTS
			BCWS	BCWP	ACWP	SV	CV	BSLN	BCWS
1.4.2	WESF	Expense	2.4	1.8	1.6	(0.7)	0.1	14.0	14.7
TP02		CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
	Subtotal 1.4.2		2.4	1.8	1.6	(0.7)	0.1	14.0	14.7
1.2.1.	Solid Waste	Expense	5.5	5.5	4.8	(0.0)	0.7	35.3	35.3
WM03	Stor & Disposal	CENRTC	0.0	0.0	0.0	0.0	(0.0)	0.0	0.0
		GPP/LI	<u>0.0</u>	<u>0.0</u>	<u>(0.0)</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
	Subtotal 1.2.1		5.5	5.5	4.8	(0.0)	0.7	35.3	35.3
1.2.2.	Solid Waste	Expense	4.0	3.5	3.3	(0.6)	0.1	26.7	26.7
WM04	Treatment	CENRTC	0.0	0.0	(0.0)	0.0	0.0	0.0	0.0
		GPP/LI	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
	Subtotal 1.2.2		4.0	3.5	3.3	(0.6)	0.1	26.7	26.7
1.2.3.	Liquid Effluents	Expense	4.3	3.7	3.5	(0.6)	0.2	28.9	28.9
WM05		CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
	Subtotal 1.2.3		4.3	3.7	3.5	(0.6)	0.2	28.9	28.9
Total Waste Management		Expense	16.3	14.4	13.2	(1.8)	1.2	104.9	105.6
		CENRTC	0.0	0.0	(0.0)	0.0	0.0	0.0	0.0
		GPP/LI	<u>0.0</u>	<u>0.0</u>	<u>(0.0)</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
	Total		16.3	14.4	13.2	(1.8)	1.2	104.9	105.7

\$ In Millions

PBS WM06, WBS 1.2.4 is included in Analytical Services, Section B:2.

COST VARIANCE ANALYSIS: (+ \$1.2M)

WBS/PBS

Title

1.2.1/WM03

Solid Waste Storage & Disposal

Description/Cause: The favorable cost variance of \$.7M (13 percent) is due to staffing vacancies, caused by a project hold on hiring, until FY 2000 funding uncertainties were resolved.

Impact: No impact.

Corrective Action: No corrective action required.

1.2.2/WM04

Solid Waste Treatment

Description/Cause: The favorable cost variance of \$0.1M (4.2 percent) is within the established threshold.

Impact: No impact.

Corrective Action: No corrective action required.

1.2.3.1/WM05

Liquid Effluents-200 Area

Description/Cause: The favorable cost variance of \$.1M (3.4 percent) is within the established threshold.

Impact: No impact.

Corrective Action: No corrective action required

1.4.2/TP02

WESF

Description/Cause: The favorable cost variance of \$0.1M (7.8 percent) is within the established threshold.

Impact: No impact.

Corrective Action: No corrective action required.

SCHEDULE VARIANCE ANALYSIS: (-\$1.8)

WBS/PBS

Title

1.2.1/ WM03

Solid Waste Storage & Disposal

Description /Cause: The unfavorable schedule variance of .4 percent is within the established threshold.

Impact: No Impact.

Corrective Action: No corrective action required.

1.2.2/WM04

Solid Waste Treatment

Description /Cause: The unfavorable schedule variance of \$.6M (14.5 percent) is due to the delayed shipment and treatment of waste to Allied Technology Group (ATG) due to difficulties in obtaining Resource Conservation and Recovery Act of 1976 (RCRA) permitting and resultant construction delays. Also contributing to the variance is the WIPP RCRA permit changes impacting the requirements and procedures, which has delayed TRU production.

Impact: The ATG RCRA permit was effective July 7, 1999, and construction has been initiated. The shipment of waste to ATG will be initiated in January 2000.

Corrective Action: TRU production is focused only on items necessary to support certification.

1.2.3.1/WM05

Liquid Effluents-200 Area

Description /Cause: The unfavorable schedule variance of \$0.5M (16.0 percent) is due to the shutdown of operations at the ETF, caused by the acid spill.

Impact: The schedule is expected to be recovered.

Corrective Action: Operations resumed on November 23, 1999.

1.4.2/TP02

WESF

Description /Cause: The unfavorable schedule variance of \$0.7M (26.9 percent) is due to the WESF Safety Analysis Report contract on hold for a re-evaluation of the need to update.

Impact: None.

Corrective Action: No corrective action required.

WASTE MANAGEMENT – WBS 1.2

MILESTONE ACHIEVEMENT

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	0	0	0	0	0	3	0	3
DOE-HQ	0	0	0	0	0	0	0	0
FO	0	0	0	0	0	1	0	1
RL	0	0	0	0	0	8	0	8
Total Project	0	0	0	0	0	12	0	12

MILESTONE EXCEPTION REPORT

<u>Number/WBS</u>	<u>Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
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OVERDUE – 0

FORECAST LATE – 0

FY 1999 OVERDUE – 1

TRP-98-709	RL	Complete Hot Cell Deactivation	03/31/99	06/30/00
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1.4.2

Cause: This milestone was not completed due to resources diverted to other higher priority areas (i.e. 200 Area contamination event, Low Level Liquid Waste project, FEB preparation).

Impact: No overall impact is expected.

Corrective Action: Completion of the hot cell clean up has been deferred to FY 2000.

SECTION B:2

ANALYTICAL SERVICES (222-S, HASP, WSCF)

PROJECT MANAGERS

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SUMMARY

Analytical Services [222-S, Hanford Analytical Services Program (HASP), Waste Sampling and Characterization Facility (WSCF)] consists of Analytical Services, PBS WM06, WBS 1.2.4.

Analytical Services procedures were revised to comply with the new Transuranic (TRU) Waste Analysis Plan as per Waste Isolation Pilot Plant (WIPPs) Resource Conservation and Recovery Act of 1976 (RCRA) Part B Permit from the New Mexico Ecology Department. Materials to support reconfiguring the head-gas sampling system were procured. Procurement of additional instrumentation and supplementation of staff to support increased TRU Project processing rates was initiated.

DOE has funded development of a new polychlorinated biphenyl (PCB) analysis method that utilizes Solid Phase Extraction [this is a Pollution Prevention return on investment (ROI) Project]. This method, when implemented, will provide PCB analysis in the laboratory without generating a Toxic Substances Control Act of 1976 (TSCA) regulated waste stream.

Milestone performance (EA, DOE-HQ, Field Office, and RL) shows no milestones are due this reporting period.

ACCOMPLISHMENTS

- Performed 2,040 analyses (FYTD) through November 1999 at the 222-S Laboratory. Performed 0.7 Analytical Equivalency Units (AEU) (FYTD) through November 1999 at the 222-S Laboratory in support of the River Protection Program (RPP) [Tank Waste Remediation System (TWRS)] tank characterization program. Completed the final analytical report on RPP Tank S-109, on schedule.
- Performed 1,700 analyses (FYTD) through November 1999 at the WSCF, as planned.
- Passed the Mixed Analyte Performance Evaluation Program (MAPEP) soil sample # 99-S6 from DOE Radiological and Environmental Sciences Laboratory (RESL), as planned.
- Completed an analysis of capital equipment needs for analytical instrumentation at the 222-S and WSCF Laboratories, as planned.
- Implemented a new commitment tracking system (CATRAX) at 222-S, on schedule.
- Completed EH-10 corrective action, as scheduled, for implementation of management surveillance activities at the 222-S laboratory.
- Completed down-posting of 2,600 ft³ of radiological area at 222-S, on schedule.

COST PERFORMANCE (\$M):

	BCWP	ACWP	VARIANCE
Analytical Services	\$3.9	\$4.0	- \$0.2*

*Rounding

The \$0.2 million (4 percent) unfavorable cost variance is within established threshold. Further information at the PBS level can be found in the following Cost Variance Analysis details.

SCHEDULE PERFORMANCE (\$M):

	BCWP	BCWS	VARIANCE
Analytical Services	\$3.9	\$3.9	- \$0.1*

*Rounding

The \$0.1 million (1.9 percent) unfavorable schedule variance is within established threshold. Further information at the PBS level can be found in the following Cost Variance Analysis details.

ISSUES

The WSCF laboratory self-identified an analytical procedure where acid digestion of certain liquid samples was not conducted per permit-mandated protocol.

Strategy/Status: The procedure was revised and available samples are being reanalyzed for certain customers. Results will be compared with undigested samples and the impact of this issue will be evaluated. Other critical procedures are also being reviewed. The laboratory is examining all permit-mandated analytical procedures to determine adherence to protocols.

ANALYTICAL SERVICES

WBS 1.2.4

FY 1999 COST/SCHEDULE PERFORMANCE - ALL FUND TYPES

Cumulative to Date Status

ANALYTICAL SERVICES WBS 1.2.4

		FYTD					AUTH	PTS
		BCWS	BCWP	ACWP	SV	CV	BSLN	BCWS
PBS								
WM06	Expense	3.9	3.8	4.0	(0.0)	(0.1)	25.6	25.1
	CENRTC	0.1	0.0	0.0	(0.0)	(0.0)	0.0	0.5
	GPP/LI	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
	Total	3.9	3.9	4.0	(0.1)	(0.2)	25.6	25.6

\$ In Millions

COST VARIANCE ANALYSIS: (-\$0.2M)

WBS/PBS

Title

1.2.4/WM06

Analytical Services

Description/Cause: The unfavorable cost variance of \$0.2M (1 percent) is within established threshold.

Impact: N/A

Corrective Action: None required.

SCHEDULE VARIANCE ANALYSIS: (-\$0.1)

1.2.4/WM06

Analytical Services

Description /Cause: The unfavorable schedule variance of \$0.1M (1 percent) is within established threshold.

Impact: None

Corrective Action: None required.

ANALYTICAL SERVICES – WBS 1.2.4

MILESTONE ACHIEVEMENT

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	0	0	0	0	0	0	0	0
DOE-HQ	0	0	0	0	0	0	0	0
FO	0	0	0	0	0	0	0	0
RL	0	0	0	0	0	1	0	1
Total Project	0	0	0	0	0	1	0	1

MILESTONE EXCEPTION REPORT

<u>Number/WBS</u>	<u>Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
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OVERDUE – 0

FORECAST LATE – 0

SECTION C

SPENT NUCLEAR FUEL

PROJECT MANAGERS

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Summary

The Spent Nuclear Fuel (SNF) mission consists of the Spent Nuclear Fuel Project WBS 1.3.1.1 (Project Baseline Summary [PBS] WM01) and the subsequent Canister Storage Building (CSB) Operations Project WBS 1.3.2.1 (PBS WM02), which doesn't start until FY 2004.

The Canister Storage Building (CSB) is 94 percent complete, compared to 95 percent planned. The Cold Vacuum Drying (CVD) Facility is 92 percent complete compared to 94 percent planned.

Factory testing of the CSB Tube Vent and Purge Cart was completed. A Request for Proposal was issued for the CSB weld hood. The General Contract for the remaining Canister Storage Building (CSB) construction work was awarded to G. A. Grant Company with the design elements of the work subcontracted to Diversified Metal Products, Inc. RL provided authorization to weld CSB tubes.

The Multi-Canister Overpack (MCO) fabrication contractor (Joseph Oat) completed all shop drawings, placed all material procurements, and placed all subcontracts necessary for MCO fabrication. The first shipment of long-lead procurements for the MCO baskets (centerposts and baseplates) was received. The long-lead procurement contract for the outside posts was awarded. Fabrication of practice MCO baskets was completed. Fabrication of production MCO baskets was initiated at the Hanford Site. The MCO Topical Report was approved by RL.

A 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 completed as scheduled. Installation of upgraded CVD Facility firewalls was completed. Safety class Helium Gas Cylinders for the CVD process were received. Construction Acceptance Testing and Pre-operational Acceptance Testing of systems within Bays 4 and 5 of the CVD Facility continued. Fabrication of equipment for installation in Bay 3 is on going.

Preparations continued for initiation of cold testing of the K West Basin Fuel Retrieval System and Integrated Water Treatment System by December 31, 1999. Closure of punch-list items remaining from construction is on going.

The Integrated Safety Management System (ISMS) Phase I and Phase II Verification for the SNF Project was completed by DOE-HQ. The conclusion from the Verification was that the fundamental SNF Project approach is sound and that the SNF Project has implemented ISMS.

Fiscal year-to-date milestone performance (EA, DOE-HQ, Field Office, and RL) shows 7 out of a total of 7 milestones (100 percent) are on schedule. The Milestone Achievement details, found following cost and schedule variance analysis, provide further information on all milestone types.

Accomplishments

- CSB project is 94 percent complete vs. 95 percent planned.
- CVD Facility is 92 percent complete vs. 94 percent planned.
- The MCO Topical Report was approved by RL, as planned.
- Fabrication of production MCO baskets was initiated at the Hanford Site, as planned.
- Integrated Safety Management System Phase I and Phase II Verification of the SNF Project was successfully completed.

Cost Performance (\$M):

	BCWP	ACWP	VARIANCE
Spent Nuclear Fuels	\$22.0	\$26.2	-\$4.2

The \$4.2 million (19 percent) unfavorable cost variance is primarily a result of Cold Vacuum Drying engineering costs higher than planned; contract accruals misrepresented; Spent Nuclear Fuel Project Fee requirements and Safety Analysis Reports.

Schedule Performance (\$M):

	BCWP	BCWS	VARIANCE
Spent Nuclear Fuels	\$22.0	\$27.8	-\$5.8

The \$5.8 million (21 percent) unfavorable schedule variance is primarily a result of late award of fixed price contract of the Canister Storage Building; Facility Modifications and Integrated Water Treatment System KE construction; and modular office trailer procurements delayed.

Issues

MCO Quality Assurance Requirements: The U.S. Department of Energy, Richland Operations Office (RL) provided direction to Fluor Daniel Hanford, Inc. to include the Multi-Canister Overpacks (MCOs) and the MCO baskets on the Hanford Site's Office of Civilian Radioactive Waste Management Quality Assurance program Q-List. The additional quality assurance requirements will affect the cost but will not have any impact on the schedule for fabrication of the MCO and baskets.

Strategy/Status: Baseline change requests have been developed to define the impacts and to provide the authorization to place the MCOs and the MCO baskets on the Q-List. The BCRs are in the approval process. Clear definition of the SNF Project's interpretation of required actions to satisfy the RL guidance has been documented to RL.

FY 1999 COST/SCHEDULE PERFORMANCE - ALL FUND TYPES
Cumulative to Date Status

[illegible]

Spent Nuclear Fuels WBS 1.3

		FYTD					AUTH	PTS
		BCWS	BCWP	ACWP	SV	CV	BSLN	BCWS
1.3								
PBS								
WM01	Expense	21.1	18.7	20.9	(2.4)	(2.2)	165.9	146.5
Spent Nuclear Fuel	CENRTC	2.7	1.1	1.6	(1.6)	(0.4)	0.0	18.5
	GPP/LI	<u>4.0</u>	<u>2.2</u>	<u>3.7</u>	<u>(1.8)</u>	<u>(1.5)</u>	<u>24.7</u>	<u>25.6</u>
Sub-Total WM01		27.8	22.0	26.2	(5.8)	(4.2)	190.6	190.6
WM02	Expense	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Storage Canister	CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	GPP/LI	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Sub-Total WM02		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	Expense	21.1	18.7	20.9	(2.4)	(2.2)	165.9	146.5
	CENRTC	2.7	1.1	1.6	(1.6)	(0.4)	0.0	18.5
	GPP/LI	<u>4.0</u>	<u>2.2</u>	<u>3.7</u>	<u>(1.8)</u>	<u>(1.5)</u>	<u>24.7</u>	<u>25.6</u>
Total		27.8	22.0	26.2	(5.8)	(4.2)	190.6	190.6

\$ In Millions

COST VARIANCE ANALYSIS: (-\$4.2M)

WBS/PBS

Title

1.3.1.1/WM01

Spent Nuclear Fuel

Description and Cause: Of the \$4.2 million unfavorable variance, \$1.1 million is due to engineering costs for the Cold Vacuum Drying Facility are higher than planned; \$.9 million for contract accruals misrepresented; \$.5 million is due to SNF Project fee requirements resulting from Site Restructure; and \$.4 million for Safety Analysis Reports overrun.

Impact: These overruns were anticipated changes foreseen during the contingency analysis and will be allocated through baseline change control. Essentially all contingency will be utilized.

Corrective Actions: SNF Project will continue to look at cost efficiencies to replenish contingency.

SCHEDULE VARIANCE ANALYSIS: (-\$5.8M)

WBS/PBS

Title

1.3.1.1/WM01

Spent Nuclear Fuel

Description and Cause: The \$5.8 million (21 percent) unfavorable schedule variance is a result of late award of fixed price contract for the Canister Storage Building; KE Construction of the Facility Modifications due to resource prioritization; Modular office trailer procurements delayed due to design changes and regulatory concerns; Integrated Water Treatment System KE construction due to design/fabrication rebid.

Impacts: All projects continue to support the fuel move date of November 30, 2000. Deliveries will support Tri-Party Agreement dates. Although variances are not currently negatively affecting planned fuel movement; negative impacts could result if work around plans are not accomplished.

Corrective Actions: SNF Project is developing, analyzing, and implementing recovery plans designed to mitigate schedule variances. All recovery plans support the November 2000 fuel movement milestone.

Spent Nuclear Fuels – WBS 1.3 Milestone Achievement

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	0	0	0	0	0	2	0	2
DOE-HQ	0	0	0	0	0	0	0	0
FO	0	0	0	0	0	1	0	1
RL	0	0	0	0	0	4	0	4
Total Project	0	0	0	0	0	7	0	7

MILESTONE EXCEPTION REPORT

<u>Number/WBS</u>	<u>Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
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Overdue – 0

Forecast Late – 0

SECTION D:1

NUCLEAR MATERIAL STABILIZATION

PROJECT MANAGERS

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SUMMARY

The Nuclear Material Stabilization mission consists of the Plutonium Finishing Plant (PFP), WBS 1.4.5, PBS TP05.

As of November 30, 1999 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. Responses were submitted to the DNFSB on November 30, 1999 by DOE-HQ on the draft revision of the Recommendation 94-1 stabilization plan and schedule. The initial alpha scans on the two core samples from Tank 241-Z-361 were completed by the 222-S Laboratory and the preliminary report on the results was issued.

Fiscal-year-to-date milestone performance (EA, DOE-HQ, FO, and RL) shows that one milestone (100 percent) was completed on or ahead of schedule, no milestones were completed late, and none are overdue. One milestone (TRP-00-500) is forecast to be late due to a proposed change in process implementation. A letter has been sent to RL indicating the milestone will not be met. Further details can be found in the milestone exception report beginning on page D: 1-8.

ACCOMPLISHMENTS

- Thermal Stabilization Restart - A Technical Review Board recommended that the Supercritical Fluid Extraction (SFE) process be approved as an alternative method of measuring moisture in all plutonium oxides as part of the stabilization verification process required by DOE STD-3013-99 standard. A total of 99 cans of oxides/sludges have been stabilized.
- Solution Stabilization - A notice to proceed was authorized to Diversified Metal Products, Inc. (DMP) on November 5, 1999 for the precipitation gloveboxes and related process equipment. The scheduled delivery date for this equipment is March 21, 2000. Procurement of the glove port rings will be performed by FDNW and delivered to DMP in January 2000. The prototype vertical calciner continues to operate successfully in PFP's Plutonium Process Support Laboratories (PPSL). A total of 10 liters of solution have been stabilized.
- Polycube stabilization - The scope of work for PNNL testing has proceeded through the review and approval cycle process. PNNL testing is now in progress.
- Tank 241-Z-361 Core Sampling – Two core samples were delivered to the 222-S Analytical Laboratory for analysis September 31, 1999, one month ahead of schedule (Milestone TRP-00-501). The 222-S Analytical Laboratory has completed the initial alpha scans on the samples from Tank 241-Z-361, and has issued the report on the results. There were no quality problems noted during the validation, so the data should be fully useable.
- Project W-460 - HazOp meetings for the Safety Analysis (SA) and Criticality Safety Evaluation Report have been completed and documents are under review. Long-lead procurement for the Bagless Transfer System (BTS) glove box has been initiated.

COST PERFORMANCE (\$M):

	BCWP	ACWP	VARIANCE
Nuclear Material Stabilization	\$17.4	\$13.0	+ \$4.4

The \$4.4million (25 percent) favorable cost variance is due to a shortage of staff and lag in costs for contracts (i.e., including the Energy Services contract for steam), slow start in FDNW definitive design support for Project W-460 and delay in contract release for the BTS glove box procurement.

SCHEDULE PERFORMANCE (\$M):

	BCWP	BCWS	VARIANCE
Facility Stabilization	\$17.4	\$20.6	- \$3.2

The \$3.2 million (16 percent) unfavorable schedule variance is primarily due to the behind status in special projects (sanitary water system upgrade, Criticality Alarm Panel upgrade and radiation monitoring constant air monitor upgrade); the behind status on stabilization of SS&C, ash and compounds; Mg(OH)₂ Precipitation, stabilization project management, and definitive design delay on Project W-460.

ISSUES

Planned \$6.9M reduction to FY 2000 funding will limit the project's ability to accelerate DNSFB Recommendation 94-1 activities (cementation, polycube stabilization, new muffle furnaces). The reduction may impact Project W-460 if outer can welder reduced cost is not possible.

Strategy/Status: Local reprogramming of Project W-460 Line Item funds may be required.

Loss of electrical transformer capacity (two of four transformers supplying power to the PFP failed in November 1999). The remaining two transformers show the same signs of degradation as the failed units.

Strategy/Status: The replacement/rebuilding of all four transformers is recommended to restore original electrical power capacity. The estimated cost is \$2M, which, if required, could impact FY 2000 work scope.

NUCLEAR MATERIALS STABILIZATION PROJECT **WBS 1.4.5** **FY 1999 COST/SCHEDULE PERFORMANCE - ALL FUND TYPES** **Cumulative to Date Status**

NUCLEAR MATERIALS STABILIZATION PROJECT

WBS 1.4.5

		FYTD					AUTH	PTS
		BCWS	BCWP	ACWP	SV	CV	BSLN	BCWS
PBS								
TP05	Expense	17.9	15.6	12.3	(2.4)	3.2	107.9	110.4
	CENRTC	0.0	0.0	0.0	0.0	(0.0)	0.0	0.0
	GPP/LI	<u>2.7</u>	<u>1.9</u>	<u>0.7</u>	<u>(0.9)</u>	<u>1.2</u>	<u>17.5</u>	<u>17.5</u>
	Total	20.6	17.4	13.0	(3.2)	4.4	125.4	127.9

\$ in Millions

COST VARIANCE ANALYSIS: (+ \$4.4M)

WBS/PBS

Title

1.4.5/TP05

PFP Deactivation (Nuclear Materials Stabilization Project)

Description and Cause: The favorable cost variance is due primarily to an underrun in contracts due to late release and shortage of needed staff in FY2000 resulting from suspended hiring in FY1999 due to budget constraints.

Impact: No impact. The favorable cost variance will self correct once contract accruals align with costs and staff hiring is completed.

Corrective Action: Numerous contracts have been issued to correct for staff shortage. Also, staff hiring has been expedited.

SCHEDULE VARIANCE ANALYSIS: (-\$3.2)

WBS/PBS

Title

1.4.5/TP05

PFP Deactivation (Nuclear Materials Stabilization Project)

Description and Cause: The unfavorable schedule variance is due primarily to the behind schedule status on special projects (Cost Air Monitor upgrade, Criticality Panel upgrades, etc.), alloy stabilization, Sand, Slag & Crucible (SS&C) /ash shipments and Project W-460 capital line item definitive design. Schedule recovery on all activities in work except SS&C/ash shipments - alternate path forward in progress.

Impact: The scheduled shipment of Sand, Slag & Crucible (SS&C) materials in FY 2000 from PFP will not occur impacting the disposition of this material; an alternative path is needed. There is no impact from the behind schedule status on either the Special Project or Project W-460 definitive design activities (i.e., will self correct).

Corrective Action: An alternative path has been developed for the stabilization of SS&C material. Specifically, SS&C material will be stabilized at PFP. Funds originally allocated for the shipment of this material to the Savannah River Site will be redirected to cementation startup activities instead.

NUCLEAR MATERIAL STABILIZATION – WBS 1.4.5

MILESTONE ACHIEVEMENT

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	1	0	0	0	0	1	0	2
DOE-HQ	0	0	0	0	0	1	0	1
FO	0	0	0	0	0	0	0	0
RL	0	0	0	1	0	10	0	11
Total Project	1	0	0	1	0	12	0	14

Total Project

Enforceable Agreement

RL

MILESTONE EXCEPTION REPORT

<u>Number/WBS</u>	<u>Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
OVERDUE – 1				
TRP-00-106	RL	Submit Hanford Materials	11/15/99	Completed
1.4.6.1		Management Plan to DOE-RL		11/11/99
Cause: TRP-00-106 was completed on November 11, 1999, 4 days ahead of schedule; however, the Central Milestone Module (CMM) was not updated with the current information.				
Impact: Milestone is shown as overdue; however, it was completed ahead of schedule.				
Corrective Action: CMM will be updated with the current information.				

FY 1999 OVERDUE – 3

TRP-99-800	FO	End Point Method Improvement	06/25/99	06/30/00
1.4.5				
Cause: Resources necessary to complete this milestone were diverted to other priority work, specifically the development of the PFP re-baseline (Tiger Team) and offsite DOE-HQ work.				
Impact: This milestone is independent of the PMBS critical path and does not impact any schedule. It represents an enhancement in the project's ability to plan deactivation work, but is not essential.				
Corrective Action: This work scope has been deferred to FY 2000.				
TRP-99-419	FO	Complete Installation of Production	09/30/99	Proposed
1.4.5		Scale Vertical Calciner		Deletion
Cause: The production scale vertical calciner has been replaced with the Magnesium Hydroxide Precipitation process.				
Impact: No impact. This milestone is obsolete.				
Corrective Action: Since installation and testing of the production scale vertical calciner is an EM-65 Management Commitment, the Department of Energy, Richland Office (DOE-RL) change control process cannot remove this milestone.				
TRP-99-500	HQ	Complete Installation & Testing of	09/30/99	Proposed
1.4.5		Production Vertical Calciner		Deletion
Cause: The production scale vertical calciner has been replaced with the Magnesium Hydroxide Precipitation process.				
Impact: No impact. This milestone is obsolete.				
Corrective Action: Since installation and testing of the production scale vertical calciner is an EM-65 Management Commitment, the Department of Energy, Richland Office change control process cannot remove this milestone.				

SECTION D: 2

RIVER CORRIDOR

PROJECT MANAGERS

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SUMMARY

The River Corridor Project consists of the following projects: 300 Area Liquid Effluent Facility (LEF) WBS 1.2.3.2, Project Baseline Summary (PBS) WM05; B-Plant, WBS 1.4.1, PBS TP01; 300 Area/Special Nuclear Materials, WBS 1.4.4, PBS TP04; Transition Project Management, WBS 1.4.6, PBS TP12; Accelerated Deactivation, WBS 1.4.8, PBS TP10; 324/327 Facility Transition, WBS 1.4.10, PBS TP08; and Hanford Surplus Facility Program (300 Area Revitalization), WBS 1.4.11, PBS TP14.

PBS WM05 is divided between WBS 1.2.3.1, Liquid Effluents (200 LEF) and WBS 1.2.3.2, 310 TEDF/340 Facility (300 LEF). For the purpose of performance analysis, PBS WM05 is reported in Waste Management, which has the majority of the funding incorporated in their baseline. WBS 1.2.3.2 workscope is now included in the River Corridor.

No comments were received during a public hearing of the 300 Area Waste Acid Treatment System (WATS) Closure plan held on November 9, 1999 at the local office of the Washington State Department of Ecology (Ecology). The period for written comments closes on December 6, 1999.

Progress was made in the 324 B Cell cleanout effort despite being five months behind schedule for the reduction of the 2A Rack and transfer of waste. Six grout containers were removed from the B Cell and placed in A Cell for interim storage, awaiting characterization. Crane outage however, continued to frustrate progress throughout the Radiochemical Engineering Cell (REC) complex. Dose profiling of the containers removed from B Cell was halted when the A-D Cell transfer crane failed. Repairs were also ongoing during the reporting period on the B Cell and Airlock cranes. The facility has re-sequenced planned activities to work around the stranded A-D Cell transfer crane and made limited progress in waste characterization. Facility management also focused on personnel dose management and overall crane recovery planning. Other progress includes the completion and submittal of the 300 Area Special Case Waste (SCW) Project Management Plan ten months ahead of schedule, and completion of the shipment of an A Cell Mixed Waste Box to the 200 Area burial grounds, two months behind schedule.

The revised 324 Building deactivation sequence strategy was reviewed and accepted by Ecology. The strategy will be implemented in the update of *324/327 Buildings Stabilization/Deactivation Project Management Plan (PMP)*. A letter from Fluor Hanford (FH) defining the criteria for completing Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) interim milestone M-89-02, Complete Removal of 324 Building REC B Cell MW and Equipment, endpoint was transmitted for approval and subsequent submittal to Ecology. The letter included a table identifying specific items that would remain in-cell at the conclusion of M-89-02 activities. Agreement on endpoint criteria is crucial for ensuring all appropriate activities for milestone completion are factored into the new schedules being generated for the PMP update.

Work continues on the Liquid Waste Handling System (LWHS), a key activity for 324 Building deactivation, specifically to accommodate interim storage of liquid waste generated during cell cleanup activity. The inventory for additional fuel and dispersible material was completed in preparation for the 324 Building Deactivation Notice of Construction (NOC) permit for radioactive air emissions with the Washington State Department of Health (WDOH). The preliminary design was completed by COGEMA Engineering Corporation two months behind schedule.

Progress at the 327 Facility includes the transfer of 21 of 300 specimen containers from dry storage. Also, one concrete-lined waste drum was packaged containing five legacy waste buckets. The required verification of thirty legacy waste buckets was completed on schedule. This information will be utilized during the approval process of the finalized work plans, which determine actions to complete shipments.

Fiscal-year-to-date milestone performance (EA, DOE-HQ, FO, and RL) shows that 1 of 11 milestones (9 percent) was completed on or ahead of schedule and 2 milestones (18 percent) are overdue. The Milestone Achievement details, found following cost and schedule variance analysis, provide further information on all milestone types. Additional details on the overdue milestones can be found in the milestone exception report starting on page D: 2-9.

ACCOMPLISHMENTS

- Submitted 300 Area SCW Project Management Plan ten months ahead of schedule. (TRP-00-902)
- Shipped A Cell Mixed Waste Box from the 324 Facility to 200 Area burial grounds two months behind schedule.
- Completed the Liquid Waste Handling System (LWHS) preliminary design two months behind schedule.
- Completed repairs to the B Cell 10-ton crane drive motor and the 3-ton crane cable reel tension.
- Completed transfer of 21 of 300 specimen containers from the 327 Facility dry storage. (Ahead of schedule)
- Packaged one concrete-lined waste drum containing five legacy waste buckets from the 327 Facility. (Ahead of schedule)
- Complete required verification of thirty legacy waste buckets at 327 Facility. (Ahead of schedule)

COST PERFORMANCE (\$M):

	BCWP	ACWP	VARIANCE
River Corridor Project	\$7.8	\$7.1	+ \$0.7

The \$0.7 (8.9 percent) favorable cost variance is due to lower than planned labor and contract costs as a result of the PHMC re-structuring. Further information at the PBS level can be found in the following Cost Variance Analysis details.

SCHEDULE PERFORMANCE (\$M):

	BCWP	BCWS	VARIANCE
River Corridor Project	\$7.8	\$8.8	- \$1.0

The \$1.0 million (10.3 percent) unfavorable schedule variance is primarily due to delays with B Cell clean out activities including waste shipments and estimate update activities. Further information at the PBS level can be found in the following Schedule Variance Analysis details.

ISSUES

Downtime driven by facility systems/equipment failures (HVAC, cranes) continues to create delays in the 324 Facility project schedules. The ongoing crane and facility system failures have placed the project significantly behind schedule.

Strategy/Status: The backlog of project activities will be accumulated to allow for transfer of project resources to other closure plan activities in order to maintain progress on overall critical path. In addition, the PMP, Rev 3, which re-sequences the B Cell clean out activities, includes an estimate of total operating efficiency (TOE) based on historical outages. The TOE factor will be applied to current and out year activities.

Waste Sampling and Characterization Facility (WSCF) metals analysis deviated from EPA Method 200.8. This resulted in being in a non-compliance state with the National Pollutant Discharge Elimination System Permit.

Strategy/Status: WSCF issued a five-day report and participated in Corrective Action Management while reviewing other procedures. The samples will be re-analyzed in six months.

RIVER CORRIDOR

WBS 1.4.1, 1.4.4, 1.4.6, 1.4.8, 1.4.10, 1.4.11

FY 1999 COST/SCHEDULE PERFORMANCE - ALL FUND TYPES

Cumulative to Date Status

□ FYSF												
—◇— PTS BCWS	3.7	8.8	13.2	17.5	22.2	27.8	32.6	39.2	122.6	137.6	154.6	172.8
—*— BCWP	3.1	7.8										
—■— ACWP	2.0	7.1										
SV	(0.5)	(1.0)										
CV	1.2	0.7

RIVER CORRIDOR

WBS 1.4.1, 1.4.4, 1.4.6, 1.4.8, 1.4.10, 1.4.11

			FYTD					AUTH	PTS
			BCWS	BCWP	ACWP	SV	CV	BSLN	BCWS
1.4.1.1	B-Plant	Expense	0.0	0.0	0.1	0.0	(0.1)	0.0	0.0
TP01		CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	0.0	0.0	0.0	0.0	(0.0)	0.0	0.0
	Subtotal 1.4.1.1		0.0	0.0	0.1	0.0	(0.1)	0.0	0.0
1.4.4.1	300 Area/SNM	Expense	0.4	0.4	0.4	0.0	(0.0)	2.7	2.7
TP04		CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Subtotal 1.4.4.1		0.4	0.4	0.4	0.0	(0.0)	2.7	2.7
1.4.6.1	Transition Project	Expense	3.0	3.0	2.0	0.0	1.0	18.8	19.4
TP12	Mgmt	CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Subtotal 1.4.6.1		3.0	3.0	2.0	0.0	1.0	18.8	19.4
1.4.8.1	Accelerated	Expense	0.4	0.4	0.5	(0.0)	(0.1)	2.5	2.7
TP10	Deactivation	CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Subtotal 1.4.8.1		0.4	0.4	0.5	(0.0)	(0.1)	2.5	2.7
1.4.10.1	324/327 Facility	Expense	4.9	3.9	4.1	(1.0)	(0.2)	32.4	32.9
TP08	Transition	CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Subtotal 1.4.10.1		4.9	3.9	4.1	(1.0)	(0.2)	32.4	32.9
1.4.11.1	HSFP 300 Area	Expense	0.1	0.1	0.1	(0.0)	0.0	0.8	0.8
TP14	Revitalization	CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Subtotal 1.4.11.1		0.1	0.1	0.1	(0.0)	0.0	0.8	0.8
RIVER CORRIDOR		Expense	8.8	7.8	7.1	(1.0)	0.7	57.2	58.4
TOTAL		CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	0.0	0.0	0.0	0.0	(0.0)	0.0	0.0
	River Corridor Total		8.8	7.8	7.1	(1.0)	0.7	57.2	58.4

COST VARIANCE ANALYSIS: (+ \$0.7)

WBS/PBS

Title

1.4.10/TP08 324/327 Building Deactivation

Description and Cause: The unfavorable cost variance is primarily due to carryover work scope being performed via an Advanced Work Authorization (AWA), higher than planned B Cell crane repairs, and performing unfunded accelerated 327 Building deactivation work scope also via AWA.

Impact: None. Spending against AWAs is being closely monitored.

Corrective Action: Costs of work being performed via AWA will be measured against baseline performance once the applicable baseline change requests are approved. This is particularly applicable to the effort associated with the 327 accelerated deactivation work scope.

1.4.8/TP10 Accelerated Deactivation

Description and Cause: The unfavorable cost variance is primarily due to an error in fee distribution resulting in higher than planned cost.

Impact: No impact.

Corrective Action: Accounting error has been corrected and will be reflected in the December reports.

1.4.6/TP12 Transition Project Management

Description and Cause: The favorable cost variance is primarily due to the PHMC restructuring which has mapped personnel to other sub-projects, resulting in underruns in labor and contractor support.

Impact: Not determined. Underruns will be utilized to fund other high priority project and site work scope.

Corrective Action: No corrective action is required.

1.4.11/TP14 HSFP 300 Area Revitalization

Description and Cause: The favorable cost variance is primarily due to less than planned labor support in radiological control, emergency preparedness and generator services offset by an increase in craft labor support of the clarifier repairs.

Impact: None.

Corrective Action: The variance will decrease over time, as fee will be costed in December and corrective maintenance requirements may increase throughout the year.

All other PBS variances are within established thresholds.

SCHEDULE VARIANCE ANALYSIS: (-\$1.0)

WBS/PBS

Title

1.4.10/TP08

324/327 Building Deactivation

Description and Cause: The unfavorable schedule variance is due to the delay with B Cell clean out activities, including waste shipments as a result of non availability of cell support systems and no work being performed on the PUREX Tunnels as this activity is no longer required.

Impact: The continued behind schedule condition jeopardizes achievement of schedule recovery.

Corrective Action: Maximum effort is being expended to repair cranes and other cell support systems. The PMP is being updated to include a re-sequence of critical path activities that will provide recovery of TPA milestone schedule.

1.4.8/TP10

Accelerated Deactivation

Description and Cause: The unfavorable schedule variance is due to the delay in the estimate update activities as a result of the separation from WESF and sub-project re-structuring.

Impact: Estimate update activities will be completed approximately one month behind schedule.

Corrective Action: None. Good progress is being made to recover schedule. Completion in January 2000 has no adverse impact to FY 2000 budget formulation tasks.

1.4.11/TP14

HSFP 300 Area Revitalization

Description and Cause: The unfavorable schedule variance is due to delays in performing the baseline estimate update activities as a result of changes in the organization associated with re-structuring. Personnel are performing other planned work either within sub-project or other area.

Impact: Will not complete the estimate update in first quarter as planned.

Corrective Action: Continue activities and provide notifications that estimate update will be completed in second quarter.

All other PBS variances are within established thresholds.

RIVER CORRIDOR MILESTONE ACHIEVEMENT

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	1	0	0	0	0	0	0	1
DOE-HQ	0	0	0	0	0	0	0	0
FO	0	0	0	0	0	1	0	1
RL	0	0	0	2	0	0	7	9
Total Project	1	0	0	2	0	1	7	11

Total Project

Completed Early
33%

Overdue
67%

RL

Overdue
100%

Enforceable Agreement

Completed
Early
100%

MILESTONE EXCEPTION REPORT

<u>Number/WBS</u>	<u>Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
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OVERDUE – 2

TRP-98-936	RL	Complete 2A Rack Size Reduction	10/23/99	03/31/00
1.4.10		and Removal		

Cause: Building systems, including facility cranes, are not operating in a manner that allows progress on project schedules.

Impact: Currently five months behind schedule to support TPA milestone M-89-02 due November 2000.

Corrective Action: Increased emphasis has been placed on improving systems availability. Additionally, the revised PMP will re-sequence critical path activities that will provide recovery to the schedule.

TRP-99-933	RL	Complete Containerization of Dispersible	11/06/99	04/30/00
1.4.10		under 2A Rack		

Cause: Building systems, including facility cranes, are not operating in a manner that allows progress on project schedules.

Impact: Currently four months behind schedule to support TPA milestone M-89-02 due November 2000.

Corrective Action: Increased emphasis has been placed on improving systems availability. Additionally, the revised PMP will re-sequence critical path activities which includes revising the completion date of this milestone and mitigating schedule impact to M-89-02.

FORECAST LATE – 7

TRP-99-907	RL	Complete 1A Rack 382-B Cask Shipments	01/01/00	05/30/00
1.4.10				

Cause: Building systems, including facility cranes, are not operating in a manner that allows progress on project schedules.

Impact: Currently four months behind schedule to support TPA milestone M-89-02 due November 2000.

Corrective Action: Increased emphasis has been placed on improving systems availability. Additionally, the revised PMP will re-sequence critical path activities which includes revising the completion date of this milestone and mitigating schedule impact to M-89-02.

MILESTONE EXCEPTION REPORT

<u>Number/WBS</u>	<u>Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
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TRP-99-910	RL	Complete transfer of SNF from B Cell	01/11/00	TBD
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1.4.10

Cause: The decreased availability of the facility cranes and delay in grout container characterization activities resulted in work scope delays.

Impact: Minimal impact; no impact on TPA M-89-02 critical path.

Corrective Action: The revised PMP will re-sequence B Cell clean out activities. The revised completion date for this milestone has not been determined at this time.

TRP-99-945	RL	Complete shipment of one RH-TRU	01/13/00	Proposed
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1.4.10

Grout Container

Deletion

Cause: The decreased availability of the facility cranes and delay in grout container characterization activities resulted in work scope delays.

Impact: Minimal/None.

Corrective Action: This milestone will be deleted upon completion and implementation of the revised PMP, which re-sequences B Cell clean out activities.

TRP-99-909	RL	Complete 2A Rack 382-B Cask Shipments	03/29/00	10/30/00
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1.4.10

Cause: Building systems, including facility cranes, are not operating in a manner that allows progress on project schedules.

Impact: Currently three months behind schedule to support TPA milestone M-89-02 due November 2000.

Corrective Action: Increased emphasis has been placed on improving systems availability. Additionally, the revised PMP will re-sequence critical path activities which includes revising the completion date of this milestone and mitigating schedule impact to M-89-02.

TRP-00-914	RL	PUREX Tunnels Ready to Receive	04/20/00	Proposed
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1.4.10

B Cell MW/SCW

Deletion

Cause: The decreased availability of the facility cranes and delay in grout container characterization activities resulted in work scope delays.

Impact: No impact. Work no longer planned for tunnel disposition.

Corrective Action: This milestone will be deleted upon completion and implementation of the revised PMP, which re-sequences B Cell clean out activities and eliminates use of Purex tunnels for storage of special-case waste (SCW).

MILESTONE EXCEPTION REPORT

<u>Number/WBS</u>	<u>Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
TRP-00-915 1.4.10	RL	Complete the 324 LWS Design & Construction	06/30/00	08/30/01
Cause: Delays in design approval driven by need for additional characterization of the physical, installed transfer systems that will interface with LWS.				
Impact: Currently ten months behind schedule; however delay to TPA milestone M-89-02 due November 2000 is not affected.				
Corrective Action: This activity will be performed in a different sequence than currently planned in support of final deactivation. The milestone completion date will be changed through implementation of the revised PMP.				
TRP-00-931 1.4.10	RL	Complete SCW Shipments to Storage	09/29/00	04/30/01
Cause: Building systems, including facility cranes, are not operating in a manner that allows progress on project schedules. Cranes are required to package, characterize and move waste containers.				
Impact: Currently seven months behind schedule to support TPA milestone M-89-02 due November 2000. This activity is not on the TPA critical path.				
Corrective Action: Increased emphasis has been placed on improving systems availability. Additionally, the revised PMP will re-sequence critical path activities which includes revising the completion date of this milestone.				

FY 1999 OVERDUE – 1

TRP-99-937 1.4.10	RL	Remove, Package & Ship Excess Equipment from B Cell	09/30/99	Proposed Deletion
Cause: The work scope related to this milestone was included in the 324 B Cell Cleanout work scope reconfiguration per approved BCR FSP-99-017. The milestone should have been deleted with the approval of FSP-99-017 but was overlooked.				
Impact: None. This milestone is obsolete.				
Corrective Action: A baseline change request will be processed to delete this milestone.				

SECTION E

LANDLORD

PROJECT MANAGERS

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SUMMARY

The Landlord mission area consists of the Landlord Project, WBS 1.5.1, Project Baseline Summary (PBS) RL-TP13.

The new capital equipment purchases (the Guzzler and two new fire trucks) were received in November approximately two months ahead of schedule (FY 1999 carryover workscope). Other carryover workscope continued and the carryover Baseline Change Request (BCR) was initiated for submittal to RL in December.

The Landlord Project bridge change request, accompanying the FY 2000 Multi Year Work Plan (MYWP) update, was disapproved by DOE-RL. The proposed life-cycle change would increase the baseline for the project by approximately 51% and exceeds the threshold that RL can approve alone; it must go to DOE-HQ for approval. The proposed change is a result of a change in the "run-to-failure" philosophy and incorporates necessary infrastructure system upgrades, capital equipment replacements, 338 non-contaminated facilities assigned to Landlord in the out years, and new workscope mandated by RL in the Integrated Site Vegetation and Animal Control (ISVAC) Project. The path forward is to submit three separate Baseline Change Requests (BCRs) as follows: 1) FY 2000 through 2002 time frame, 2) FY 2003 through 2046 (Project end-of-life), and 3) ISVAC which is new workscope directed by DOE-RL to be added to the FY 2001 and out years baseline.

ACCOMPLISHMENTS

No major RL milestones were planned or complete through November 30, 1999. The Milestone Achievement and Milestone Exception Report have not been included in this section because there are no milestones for the fiscal year.

COST PERFORMANCE (\$M):

	BCWP	ACWP	VARIANCE
Landlord	\$0.0	\$0.7	- \$0.7

FY 2000 baseline information is not loaded in HANDI; therefore, project performance cannot be demonstrated in the performance module.

SCHEDULE PERFORMANCE (\$M):

	BCWP	BCWS	VARIANCE
Landlord	\$0.0	\$0.0	\$0.0

FY 2000 baseline information is not loaded in HANDI; therefore, project performance cannot be demonstrated in the performance module. The Cost Variance Analysis and Schedule Variance Analysis will be included as soon as the baseline information is available in the performance module.

ISSUES

Landlord Project FY 2000 Bridge BCR submitted with the Multi-Year Work Plan in August 1999 was disapproved. Life-cycle baseline increase of 51% exceeds DOE-RL approval thresholds. After RL reviewed the Bridge BCR changes it was decided to break the BCR into multiple ones and submit them separately.

Strategy/Status: Three separate BCRs are being prepared as follows: 1) FY 2000 through 2002 time frame, 2) FY 2003 through 2046 (Project end-of-life), and 3) ISVAC which is new workscope directed by RL to be added to the FY 2001 and out years baseline. These BCC's have been initiated for submittal for approval to Fluor Daniel (FH) and RL by January 2000. FY 2000 baseline information can not be loaded in HANDI without approval of the first BCR, which covers FY 2000 through 2002. Therefore, project performance cannot be demonstrated in the performance module.

SECTION F

RICHLAND

ENVIRONMENTAL

RESTORATION

PROJECT MANAGERS

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SUMMARY

The Environmental Restoration (ER) Work Breakdown Structure (WBS), Section 1.6, consists of the following: WBS 1.6.1, Remedial Action [which includes Project Baseline Summaries (PBS) ER01 - 100 Area Source Remedial Action, PBS ER02 - 200 Area Source Remedial Action, PBS ER03 - 300 Area Source Remedial Action, and PBS ER08 - Groundwater Management]; WBS 1.6.2, Decontamination and Decommissioning [which includes PBS ER05 - Surveillance and Maintenance, PBS ER06 - Decommissioning Projects]; WBS 1.6.3, PBS ER10 - Program Management and Support; WBS 1.6.4, PBS ER07 - Long-term Surveillance and Maintenance; and WBS 1.6.6, PBS ER04 - Environmental Restoration Disposal Facility (ERDF).

Good progress was made in all areas of Environmental Restoration (ER) Project activities during November.

Remediation work proceeded at the 100 B/C, D, F, H, and 300 Areas. Development of the Scope of Work (SOW) proceeded for the 100 B/C 11 small waste sites' backfill activities. Backfill of the 11 sites is scheduled to be completed this winter.

Closeout/verification sampling of completed excavation areas continued in the D Area. Excavation of two waste sites, 116-D-2 Fuel Storage Basin Trench and 116-D-9 Crib, was completed ahead of schedule.

The design for the 100-FR-1 Operable Unit remedial actions proceeded. The draft electrical design for the air monitors, site trailers, and frisking tent was completed. Regulator reviews for the 116-F-2, 116-H-1, and 116-K-2 vadose zone characterization boreholes' data quality objective (DQO) process were completed.

Excavation of the 1607-H-2 and 1607-H-4 Septic Drain Field waste sites was completed as originally planned. Closeout/verification sampling will be performed over the next few weeks to determine if further excavation may be required due to possible elevated chemical levels in the soil. H Area pipeline removal activities proceeded, including asbestos abatement, pipe cutting, demolition of concrete encasements, and loadout of debris.

The Decisional Draft of the *100 Area Burial Grounds Proposed Plan* was completed for review/approval on November 12. The document identifies the preferred alternative of remove, treat, and dispose for the 45 burial grounds in the 100 Areas. Development of the Draft A *Focused Feasibility Study (FFS) and Proposed Plan* was initiated on November 29, which resolved comments from the decisional draft review.

A second draft of the *Auditable Safety Analysis/Final Hazard Classification (ASA/FHC)* report, in support of remedial action at 116-N-3 Crib, was submitted to RL on November 29.

Additional plumes of contaminated soil have been discovered in the 300 Area South Process Pond site. As a result, an estimated additional 30,528 metric tons (33,652 tons) of waste will be excavated and shipped to the Environmental Restoration Disposal Facility (ERDF) for disposal.

Mobilization activities were started for excavation of wastes from Landfill 1A and Landfill 1B in the 300 Area. This work will be done in Level B personal protective equipment (supplied air respirators) and will commence in December.

A report was received from the subcontractor regarding the staged vitrification treatability test that was conducted at the 300 Area in August. An in-situ vitrification process was used to melt a small can of depleted uranium chips and oil wastes into a glass cylinder. The report concluded that staged vitrification is a viable alternative for on-site treatment of the drummed uranium chip wastes that were discovered at the 618-4 Burial Ground in 1998. A disposal option will be selected next summer, and remedial actions are scheduled to resume at the burial ground in FY01.

The Draft A 300-FF-2 Operable Unit Focused Feasibility Study and Draft A 300-FF-2 Operable Unit Proposed Plan were completed on November 17 and transmitted to the regulators. The FFS presents the evaluation of alternatives for the waste sites in the 300-FF-2 Operable Unit. The *Proposed Plan* identifies the preferred alternatives for remediation of these waste sites. Submittal of these documents fulfilled the requirements for meeting the *Tri-Party Agreement* Milestone M-15-23B (due November 30) and the subsequent major Milestone M-15-00B (due December 31).

In November, ERDF reached the 1,814,360 metric ton (2,000,000 ton) mark for wastes disposed since the facility began operation in July 1996. To date, 1,816,482 metric tons (2,002,339 tons) of material have been received and placed in the disposal facility.

FY00 release site performance measures include a total of 29 sites. Excavation of 2 waste sites was completed in November, for a total of 3 waste sites in FY00.

FY00 assessment performance measures include a total of 121 assessments. 76 assessments are with regard to the cleanup strategy at the 300-FF-2 Operable Unit sites. Additional 45 assessments were deferred from FY99, and are being incorporated in the *Proposed Plan* (leading to a *Record of Decision* [ROD]) for the 100 Area Burial Grounds.

The Groundwater/Vadose Zone (GW/VZ) Integration Project completed the draft software requirements specification, *Identify System Assessment Capability (SAC) Rev. 0 Requirements*, on November 15 for internal project review and approval. This product is the first, and key, section of the *Assessment Design Document for the SAC, Rev. 0*. The requirements specification includes detailed requirements for each component of the SAC, and a section devoted to items or processes not supported by the Rev. 0 capability.

The Environmental Management Science Program (EMSP) Principal Investigator Orientation meeting was held with new EMSP grantees, the GW/VZ Integration Project staff, and representatives of core projects. The process review of the soil inventory estimation methodology development was completed. The second Risk S&T Workshop was also completed.

The 100 Area regulatory path forward workshop for November was conducted with the regulators and RL. The integrated regulatory path and end-point options for Waste Group #1 (100 Area Groundwater) were developed.

The GW/VZ Project is establishing an issues management system that will be used to track and disposition GW/VZ issues. Through partnering with Pacific Northwest National Laboratory (PNNL), software and hardware were identified to support the system. The software and hardware have been transferred from PNNL to the GW/VZ Project, providing enhanced capabilities and reducing the cost of the task.

The *100-HR-3 Record of Decision (ROD) Amendment* for the In-Situ REDOX Manipulator (ISRM) technology was approved in late October. Direction was received in November to proceed with FY00 well installation procurement activities while finalizing the *Remedial Design Report and Remedial Action Work Plan (RDR/RAWP)*. Well drilling is expected to begin in January.

Several long-term groundwater-monitoring reports were completed and distributed for review/approval during November.

In September, 19 additional wells were sampled near the City of Richland in response to slightly elevated tritium levels found in three wells. Sampling test results indicated tritium levels at these three wells had decreased to historical levels. One well that was added to the network had about 500-pCi/L tritium (this is 1/40 of the 20,000-pCi/L drinking water standard for tritium). These results were presented to the City of Richland, Washington State Department of Health, and RL on November 30. It was determined that the results warranted continued monitoring.

All groundwater pump and treat systems operated above planned 90% availability levels through November. Since system inception, the five pump and treat systems have processed over 3.1 billion liters of groundwater, removing 3,553 kg of tetrachloride, 145 kg of chromium, and 0.529 curies of strontium. Approximately 168 million liters of groundwater have been processed in FY00, removing approximately 149 kg of tetrachloride, 12.0 kg of chromium, and 0.029 curies of strontium.

The Decisional Draft *200-CW-5 Remedial Investigation/Feasibility Study (RI/FS) Work Plan* was completed on November 15. This document addresses remedial actions at the 200 Area 200-CW-5 U Pond and Z Ditches Cooling Water Waste Group.

Several Interim Safe Storage (ISS) project activities were completed at the F and DR Reactor areas in November. The "Guzzler" vacuum demonstration was conducted at the DR Reactor Valve Pit on November 10. After the demonstration results are evaluated, a decision will be made whether to use the Guzzler or heavy equipment to remove the fuel storage basin fill. The below-grade demolition of the F and DR Valve Pits, and the DR Fan Room Slab, was completed on November 18. The DR Valve Pit/Fan Room Slab demolition was completed three weeks ahead of schedule. Demolition debris loadout is scheduled for completion the first week of December.

The 233-S Plutonium Concentration Facility process hood *Safety Evaluation Report* comments continued to be resolved. The matting was removed from the grating in the second floor viewing room. The loadout hood de-energized electrical inspections, and installation of the separation barrier for the localized ventilation, were completed. Dismantling of the loadout hood framework and removal of electrical conduit were initiated.

Surveillance and maintenance (S&M) activities proceeded in November to ensure inactive facility integrity and safety. Submitted bids were evaluated for the construction of the new Water Treatment Plant replacement system at N Reactor. The *Waste Management Plan* was completed for the removal of legacy waste from KE and KW Reactors.

A tour was held at the Westway Liquid Cattle Feed Plant in Burbank, Washington. The ERC had successfully cleaned 5 of the 11 excessed tanks that are now in use at this plant. Many members of the Hanford Economic Transition team were in attendance, as well as DOE and other Hanford contractor personnel, who had contributed to this economic transition effort. Disposal costs were avoided by allowing public use of the tanks. This is a good example of how surplus Government equipment can be transferred to local businesses for further use, and cost savings are shared by both parties.

Support was provided in the publication of the *FY99 Waste Minimization Annual Report* which highlights Hanford's waste minimization efforts. Approximately \$50M of potential cost savings were identified from the ERC.

The ER Project *Long-Range Plan* (LRP) and *Baseline* documents were completed on November 30 to meet the scheduled December 1 completion date. Deliverables included the Baseline Update (Vol. 1-3), LRP graphic, and Site/Facility completion graphics.

Two *Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement)* milestones were completed ahead of schedule in November. Milestone M-15-23B, Submit 300-FF-2 FFS and Proposed Plan for Regulator Review, (due November 30) was completed on November 22. Milestone M-15-00B, Complete All Area Operable Unit Pre-Rod Site Investigations Under Approved Work Plan Schedules, (due December 31) was also completed on November 22. The Milestone Achievement details, found following cost and schedule variance analysis, provide further information on all milestone types, both fiscal year-to-date and remaining scheduled. Additional details on the overdue and forecast late milestones can be found in the milestone exception report starting on page F: 14.

ACCOMPLISHMENTS

Design work for remediation of the F Reactor Area was initiated in October 1999.

A Notice to Proceed with the 100 D Area (Group 3) small waste sites' excavation was issued on October 20.

Excavation of 3 waste sites was completed during October and November.

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In November, ERDF reached the 1,814,360 metric ton (2,000,000 ton) mark for wastes disposed since the facility began operation in July 1996.

The decisional draft of the *100 Area Burial Grounds Proposed Plan* was completed and forwarded for review/approval on November 12. The document identifies the preferred alternative of remove, treat, and dispose for the 45 burial grounds in the 100 Area. When finalized, the Proposed Plan will be transmitted to the regulators for a Record of Decision.

The Draft A *300-FF-2 Operable Unit Focused Feasibility Study (FFS)* and Draft A *300-FF-2 Operable Unit Proposed Plan* were completed on November 17 and transmitted to the regulators. The *FFS* presents the evaluation of alternatives for the waste sites in the 300-FF-2 Operable Unit. The *Proposed Plan* identifies the preferred alternatives for remediation of these waste sites. Submittal of these documents fulfilled the requirements for Tri-Party Agreement Milestone M-15-23B (due November 30) and the subsequent major Milestone M-15-00B (due December 31).

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.

The draft software requirements specification, *Identify System Assessment Capability (SAC), Rev. 0 Requirements*, was completed on November 15 and submitted for internal project review and approval. The requirements specification includes detailed requirements for each component of the SAC, and a section devoted to items or processes not supported by the Rev. 0 capability.

The Decisional Draft *200-CW-5 Remedial Investigation/Feasibility Study (RI/FS) Work Plan* was completed on November 15.

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.

In September 19 additional wells were sampled near the City of Richland in response to slightly elevated tritium levels found in three wells. Sampling test results received in November indicated tritium levels at these three wells had decreased to historical levels.

Through partnering with Pacific Northwest National Laboratory (PNNL), a UNIX workstation and systems engineering software were transferred from PNNL to (Environmental Restoration Contract) ERC, saving approximately \$65,000 to \$80,000 on a new acquisition. This software will be updated and used by ERC to support the GW/VZ Zone Integration Project.

Assessment and characterization of the 224-B Plutonium Concentration Facility were initiated in October. This activity marks the first step in decommissioning of this facility.

Interim safe storage of F and DR Reactors continued. Below-grade demolition of the F and DR Reactor Valve Pits, and the DR Fan Room Slab, was completed on November 18. The DR Valve Pit/Fan Room Slab demolition was completed three weeks ahead of schedule.

COST PERFORMANCE (\$M):

	BCWP	ACWP	VARIANCE
ER	\$18.6	\$ 15.0	+\$ 3.6

At the end of November, the ER Project had performed \$18.6M worth of work, at a cost of \$15.0M. This accounts for a favorable cost variance of \$3.6M (19.3%). The positive cost variance is attributed to FY99 year-end accrual reversals, site excavation savings, delay in national lab billing, test pit trenching costs less than planned due to efficiencies, groundwater monitoring costs less than planned, and ISS labor costs less than planned. Further information at the PBS level can be found in the following Cost Variance Analysis details.

SCHEDULE PERFORMANCE (\$M):

	BCWP	BCWS	VARIANCE
ER	\$18.6	\$23.1	- \$4.5

The ER Project is \$4.5M (-19.6%) behind schedule for November. The negative schedule variance is attributed to delays in the 100 D Area small sites' verification sampling (resulting from additional plumes), mobilization at 100 F Area due to plume growth at H Area, 100 H pipeline removal, GW/VZ assessment design documentation and S&T activities, groundwater monitoring support, start of ISRM field work, and late billings for site-wide assessments. The following Schedule Variance Analysis details provide further information at the PBS level.

ISSUES

Resource Conservation and Recovery Act (RCRA) Compliance Well Funding: Capital funds for groundwater monitoring well installation will be expended in calendar year 1999. No funds are currently available for out-years. This will impact *Tri-Party Agreement* M-24-00 milestone.

Strategy/Status: RL is working across all applicable Hanford Site programs to identify funding for a new well strategy in calendar year 2000. Funding sources for each facility are under review.

ENVIRONMENTAL RESTORATION WBS 1.6

FY 1999 COST/SCHEDULE PERFORMANCE - ALL FUND TYPES Cumulative to Date Status

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ENVIRONMENTAL RESTORATION WBS 1.6

			FYTD					AUTH	PTS
			BCWS	BCWP	ACWP	SV	CV	BSLN	BCWS
REMEDIAL ACTION									
1.6.1	100 Area Source	Expense	5.1	3.7	3.1	(1.4)	0.7	30.2	30.2
ER01		CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Subtotal 1.6.1.01		5.1	3.7	3.1	(1.4)	0.7	30.2	30.2
1.6.2	200 Area Source	Expense	1.4	1.7	1.3	0.3	0.4	4.0	4.0
ER02		CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Subtotal 1.6.1.02		1.4	1.7	1.3	0.3	0.4	4.0	4.0
1.6.3	300 Area Source	Expense	1.3	1.1	0.4	(0.2)	0.8	6.5	6.5
ER03		CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Subtotal 1.6.1.03		1.3	1.1	0.4	(0.2)	0.8	6.5	6.5
1.6.4	Groundwater	Expense	4.0	2.7	2.4	(1.3)	0.3	21.3	21.3
ER08	Management	CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	0.2	0.3	0.3	0.2	0.0	0.8	0.8
	Subtotal 1.6.1.08		4.2	3.1	2.7	(1.2)	0.3	22.1	22.1
REMEDIAL ACTION									
		Expense	11.9	9.3	7.1	(2.6)	2.2	62.0	62.0
		CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	0.2	0.3	0.3	0.2	0.0	0.8	0.8
	Total Remedial Action		12.1	9.6	7.4	(2.5)	2.2	62.8	62.8
DECONTAMINATION & DECOMMISSIONING									
1.6.5	Surveillance &	Expense	2.0	1.6	1.7	(0.4)	(0.1)	13.4	13.4
ER05	Maintenance	CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Subtotal 1.6.2.05		2.0	1.6	1.7	(0.4)	(0.1)	13.4	13.4
1.6.6	Decontaminating &	Expense	2.6	2.3	2.0	(0.2)	0.3	9.1	9.1
ER06	Decommissioning	CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Subtotal 1.6.2.06		2.6	2.3	2.0	(0.2)	0.3	9.1	9.1
1.6.7	N-Area Deactivation	Expense	0.0	0.0	(0.0)	0.0	0.0	0.0	0.0
ER09		CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Subtotal 1.6.2.09		0.0	0.0	(0.0)	0.0	0.0	0.0	0.0
DECONTAMINATION & DECOMMISSIONING									
		Expense	4.6	4.0	3.7	(0.6)	0.2	22.5	22.5
		CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total D&D		4.6	4.0	3.7	(0.6)	0.2	22.5	22.5
1.6.8	ER Prog. Mgmt. &	Expense	1.3	0.5	0.5	(0.8)	(0.1)	32.5	32.5
ER10		CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Subtotal 1.6.3.10		1.3	0.5	0.5	(0.8)	(0.1)	32.5	32.5
1.6.9	Long Term Surv. &	Expense	0.0	0.0	(0.0)	0.0	0.0	0.0	0.0
ER07		CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Subtotal 1.6.4.07		0.0	0.0	(0.0)	0.0	0.0	0.0	0.0
1.6.10	ER Disposal Facility	Expense	3.4	3.1	2.4	(0.3)	0.7	18.7	18.7
ER04		CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Subtotal 1.6.6.04		3.4	3.1	2.4	(0.3)	0.7	18.7	18.7
Richland Environmental Restoration									
		Expense	21.2	16.9	13.8	(4.3)	3.1	135.7	135.7
		CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	0.2	0.3	0.3	0.2	0.0	0.8	0.8
	Subtotal Total ER 1.6		21.4	17.2	14.1	(4.2)	3.1	136.6	136.6
1.6.11	Site-Wide Ground-	Expense	1.7	1.3	0.8	(0.3)	0.5	11.8	11.8
VZ01	water/Vadoze Zone	CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Integration Project	GPP/LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Subtotal 1.6.6.04		1.7	1.3	0.8	(0.3)	0.5	11.8	11.8
Richland Environmental Restoration									
		Expense	22.9	18.2	14.6	(4.7)	3.6	147.5	147.5
		CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	0.2	0.3	0.3	0.2	0.0	0.8	0.8
	Total ER 1.6		23.1	18.6	15.0	(4.5)	3.6	148.4	148.4

COST VARIANCE ANALYSIS (+ \$3.6M)

1.6.1.01/ER01 100 Area Source Remedial Action; \$0.7M

Description and Cause: Contract award for 100-DR small sites less than planned; savings in 100-FR site prep and staff reductions; completed excavation at two 100-HR sites less than planned (100-HR project is behind schedule, recovery plan will require overtime that will erode a portion of the savings).

Impact: Cost underrun.

Corrective Action: Savings will be used for other environmental restoration work.

1.6.1.02/ER02 200 Area Source Remedial Action; \$0.4M

Description and Cause: Gable Mountain/B Pond underrun in test pit trenching due to efficiencies from previous areas; sample management underrun due to reduction in number of samples required.

Impact: Cost underrun.

Corrective Action: Savings will be used for other environmental restoration work.

1.6.1.03/ER03 300 Area Source Remedial Action; \$0.8M

Description and Cause: Management and administrative cost efficiencies; under accrual in South Process pond work.

Impact: Cost underrun.

Corrective Action: Savings will be used for other environmental restoration work.

1.6.6.04/ER04 ER Waste Disposal; \$0.7M

Description and Cause: FY99 accrual reversal.

Impact: None

Corrective Action: N/A

1.6.2.05/ER05 Surveillance and Maintenance; (\$0.1M)

Description and Cause: N/A

Impact: N/A

Corrective Action: N/A

1.6.2.06/ER06 Decommissioning Projects; \$0.3M

Description and Cause: Reduced demolition crew by 3; reevaluation of resource needs allowed for savings in equipment and personnel support.

Impact: Underrun

Corrective Action: Savings will be used for other environmental restoration work.

COST VARIANCE ANALYSIS (+ \$3.6M)

1.6.4.07/ER07 Long-term Surveillance and Maintenance; \$0.0M

Description and Cause: N/A

Impact: N/A

Corrective Action: N/A

1.6.1.08/ER08 Groundwater Management; \$0.3M

Description and Cause: Fewer field support personnel required than planned; underrun in annual report preparation.

Impact: Underrun.

Corrective Action: Savings will be used for other environmental restoration work.

1.6.3.10/ER10 ER Program Management and Support; (\$0.1M)

Description and Cause: Unplanned support to RL audit of Hanford Site Startup Readiness Verification process.

Impact: Potential overrun at yearend.

Corrective Action: Monitor account for potential trend.

1.6.6.04/VZ01 Site-Wide Groundwater/Vadose Zone Integration Project; \$0.5M

Description and Cause: Delay in national laboratory billing.

Impact: None.

Corrective Action: Procedures are being established with other national laboratories for estimating monthly accruals.

SCHEDULE VARIANCE ANALYSIS (-\$4.5M)

1.6.1.01/ER01 100 Area Source Remedial Action; (\$1.4M)

Description and Cause: 100-DR Liquid Waste Sites backfill was not started as planned due to a change in contractor methodology for performing the work (utilizing large equipment first rather than smaller as planned); discovery of additional plumes have delayed scheduled work; 100-HR pipeline work started late due to slower than anticipated contractor mobilization.

Impact: None.

Corrective Action: DR variance will be recovered when production rates increase to that planned; the baseline workscope will be adjusted to reflect new plume growth; 100-HR pipeline contractor has added additional resources and rescheduled work sequence per recovery schedule.

1.6.1.02/ER02 200 Area Source Remedial Action; \$0.3M

Description and Cause: Gable Mountain/B Pond and ditches were completed ahead of schedule (work schedule was based on historical data – efficiencies were identified to improve time required).

Impact: N/A

Corrective Action: None required.

1.6.1.03/ER03 300 Area Source Remedial Action; (\$0.2M)

Description and Cause: Water line tie-ins were delayed pending incorporation of a new procedure. Sewer line contract award was deferred to optimize contractor pricing.

Impact: None; not on critical path for project completion.

Corrective Action: None required.

1.6.1.08/ER04 ER Waste Disposal; (\$0.3)

Description and Cause: Variance reflects remediation sites being behind schedule (see ER01; ER03)

Impact: (see ER01; ER03)

Corrective Action: (see ER01; ER03)

1.6.2.05/ER05 Surveillance and Maintenance; (\$0.4)

Description and Cause: Six weeks behind schedule on 100 Area Risk Assessment caused by a delay in submittal of the KE legacy waste management plan.

Impact: Will require baseline change.

Corrective Action: Waste Management Plan submitted; regulators were provided an update of progress; field work rescheduled to start in December.

SCHEDULE VARIANCE ANALYSIS (-\$4.5M)

1.6.2.06/ER06 Decommissioning Projects; (\$0.2)

Description and Cause: Loadout Hood dismantlement at 233-S delayed due to deteriorated glove bag replacement.

Impact: None

Corrective Action: Dismantlement activities were resumed in November with December completion expected.

1.6.4.07/ER07 Long-Term Surveillance and Maintenance; \$0.0M

Description and Cause: N/A

Impact: N/A

Corrective Action: N/A

1.6.1.08/ER08 Groundwater Management; (\$1.2M)

Description and Cause: Stripper tower changeout delayed until December due to equipment availability problems; In Situ REDOX work deferred pending receipt of ROD.

Impact: Stripper tower work recoverable – not on critical path; injection well installation schedule may be impacted by In Situ REDOX delay.

Corrective Action: All work will be deferred to December.

1.6.3.10/ER10 ER Program Management & Support; (\$0.8M)

Description and Cause: Late billing of site-wide assessments.

Impact: None.

Corrective Action: None.

1.6.6.04/VZ01 Site-Wide Groundwater/Vadose Zone Integration Project; (\$0.3M)

Description and Cause: Science and technology work delayed due to deferment of various tasks to realign schedule (major task deferred is the Transport Field Study).

Impact: Minor; schedule recoverable.

Corrective Action: Recovery schedule being implemented.

ENVIRONMENTAL RESTORATION –WBS 1.6

MILESTONE ACHIEVEMENT

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	2	0	0	0	3	10	3	18
DOE-HQ	0	0	0	0	0	0	0	0
FO	0	0	0	0	0	0	0	0
RL	0	0	0	0	0	0	0	0
Total Project	2	0	0	0	3	10	3	18

Total Project

MILESTONE EXCEPTION REPORT

<u>Number/WBS</u>	<u>Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
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OVERDUE – 0

FORECAST LATE – 3

M-16-13A	EA	Initiate Remedial Action for 100-FR-1 Operable Unit	1/31/00	3/20/00
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Cause: This milestone is being impacted by plume growth at 100-HR.

Impact: Remedial action initiation will be later than originally planned at 100-FR-1.

Corrective Action: The 110-day notice for the delay in meeting this milestone was transmitted to the regulators on October 7, 1999. A formal Tri-Party Agreement change package will be submitted to the regulators in December.

M-16-07B	EA	Complete Remediation and Backfill of 22 Waste Sites at 100-DR	4/30/00	4/9/01
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Cause: This milestone is being impacted by plume growth at 100-DR.

Impact: Remedial action workscope will be completed later than originally planned.

Corrective Action: The regulators have been verbally informed. Revised dates will be negotiated with the regulators.

M-16-26C	EA	Complete Remediation and Backfill of 10 Liquid Waste Sites at 100-HR	8/31/00	10/15/00
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Cause: This milestone is being impacted by plume growth at 100-HR.

Impact: Remedial action workscope will be completed later than originally planned.

Corrective Action: The 110-day notice for the delay in meeting this milestone was transmitted to the regulators on October 7, 1999. A formal Tri-Party Agreement change package will be submitted to the regulators in December.

SECTION G

SCIENCE AND TECHNOLOGY

PROJECT MANAGERS

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SUMMARY

In Fiscal Year (FY) 2000, Science and Technology consists of Pacific Northwest National Laboratory (Pacific Northwest) Waste Management (WBS 1.7.1, Project Baseline Summary [PBS] ST01) and Science and Technologies (WBS 1.7.2, PBS ST02). PBS ST02 is U.S. Department of Energy-Headquarters (DOE-HQ) work scope and is currently unfunded.

The Pacific Northwest's Waste Management and Operational Compliance Program (WMOC) FY 2000 funding baseline will be initially reduced by \$280K as a part of the sitewide allocation for DOE-HQ assessments and reductions. Assuming no current year Tri-Party Agreement (TPA) impacts are acceptable, and that FY 1999 carryover can be retained by the program, the \$280K reduction will:

- delay implementation of the Radiochemical Processing Laboratory (RPL) Safety Analysis Report (SAR)
- delay the River Corridor outcome schedule by further delaying completion of legacy waste cleanup
- create Resource Conservation and Recovery Act of 1976 (RCRA) regulatory noncompliance
- compound the issues associated with meeting DOE-HQ-level commitments on transferring Pacific Northwest waste management services from Environmental Management to the Office of Science
- negatively affect the ability to meet outyear TPA M-92 milestones for removal of special case wastes from the 300 Area.

Allocation of this reduction broken down by Project Baseline Summary (PBS) by Unit of Analysis by funding year by funding type was submitted to Fluor Daniel Hanford (FDH) for a rollup report of all PBSs across the Hanford Site. There is a potential for additional impacts to the program depending on how a congressionally mandated, across-the-board cut of 0.38% is allocated. Laboratory-Directed Research and Development (LDRD) overhead is also lost, but a preferential general and administrative (G&A) rate will apply to the projects' pricing that will offset that amount (approximately \$450K).

The draft Hanford Site Environment, Safety, and Health (ES&H) FY 1999/2000 Execution Commitment Summary Report was reviewed and comments were provided to FDH for incorporation into the final version. Actual FY 1999 and planned FY 2000 major ES&H accomplishments and the significant ES&H risks not adequately addressed in the FY 2000 work plans were addressed for all Hanford programs. The RPL SAR implementation and legacy waste cleanup were identified as risks not adequately addressed in the Pacific Northwest WMOC Program. The RPL SAR implementation was also identified as the highest ranking unfunded

activity for FY 2000 and also the unfunded or underfunded activity in the FY 2000 work plans that addresses emerging ES&H issues.

Program office staff participated in the assessment and validation of FY 1999 program deliverables conducted by the Science and Technology Operations (STO) staff as a part of the U.S. Department of Energy's (DOE's) Business Management Oversight Process. The report is due in December.

Pacific Northwest led the Environmentally Preferable Purchasing Track at the DOE National Pollution Prevention Conference. Pacific Northwest team members facilitated technical discussions on problem products and the availability of energy efficient and biobased products, and conducted a training workshop on the requirements of Executive Order 13101.

Staff members facilitated the national U.S. Environmental Protection Agency (EPA) satellite forum on purchasing recycled products.

The single remaining nonradiological hazardous waste item in storage greater than one year was specially packaged during October and shipped on November 2. The item is a Drug Enforcement Agency controlled substance that required dissolution into a waste matrix that would inhibit its subsequent separation. Pacific Northwest Quality Assurance staff members and a Benton County Sheriff's detective witnessed the activity as required. This issue is closed.

A five percent Pollution Prevention (P2) Chargeback System was to have been deployed October 1. That system was not as capable as believed, and requires additional work prior to its deployment. The chargeback team established FY 2000 chargeout rates and made system improvements to the existing databases to provide a mechanism to deploy waste chargeback. Completion of all improvements is anticipated for early December. Waste Operations Cost Recovery Options were presented to the Pacific Northwest Leadership Team and concurrence was obtained on Pacific Northwest's recommendation to continue requesting block funding from the DOE Office of Science and the Office of the Assistant Secretary of Environmental Management in the near term. Deployment of the P2 Chargeback System is currently scheduled for January 1.

Submitted nonradioactive waste items were designated, picked up, packaged, and shipped for treatment and disposal. Two of the 479 nonradioactive waste items received by PNNL Waste Management did not pass the internal verification process requested for shipment and disposal. Eighty-two drums (2333 kgs) of nonradioactive hazardous waste were shipped offsite for treatment and disposal. Hazardous waste collection time averaged 13.8 calendar days.

Within the Radioactive Waste Project, staff members repackaged six LLW noncompactable waste drums that failed verification earlier in the year because of excessive void space. All six drums were repackaged in the presence of a Waste Management Federal Services of Hanford, Inc. (WMH) verifier and staged for later shipment.

The Packaging and Transportation staff supported 35 shipments this month, including seven radioactive shipments offsite, eight radioactive shipments onsite, and 20 hazardous material shipments (onsite and offsite).

Within the Effluent Management Project, staff members collected all required radiological air samples during the month of November and confirmed that all results received to date are within historical emission levels. The Environmental Molecular Sciences Laboratory (EMSL) monthly Discharge Monitoring Report (DMR) for October was submitted to DOE-RL on November 2, thereby satisfying the November deliverable within milestone RLST012052, 13 days early. All parameters measured were within permit limits.

Effluent Management staff coordinated the disposal of one EMSL process tank shown to contain levels of cyanide in excess of the limits established by the City of Richland Pretreatment Permit. Approximately 7,000 gallons of process wastewater was transferred from EMSL to the 300 Area Treated Effluent Disposal Facility (TEDF) via tanker truck. This discharge was coordinated to meet the wastewater acceptance criteria of the 300 Area TEDF.

Effluent Management staff confirmed that tritium emissions from the RPL for the month of October were within the expected range. The year-to-date tritium emissions are approximately 168 curies (Ci) through November 6, and remain well below the Washington State Department of Health (WDOH) annual permit limit of 379 Ci.

Under Radioactive Liquid Waste (RLW) Replacement Capability, the project is complete except for the final four hookups to the existing RLW lines and installation of the cover blocks over the tank. With the expected approval of the Readiness Assessment by DOE on December 7, the remaining post-start activities can start the third week of December. Beginning December 13, the project team and Fluor Daniel Northwest (FDNW) and their safety staff will review methods for reducing the forecasted overruns. When this evaluation is completed, if required, a change request will be issued requesting the required additional funding to complete the post-start activities. The post-start activities are forecasted to be completed the end of February, and project closeout is forecasted for the end of March.

Within the Waste Operations - Legacy Waste Project, funding for FY 2000 and the following years is projected to be approximately 25% of the amount needed to make substantive progress on legacy issues. While providing input to the site funding allocation process, funding will be in accordance with the final site priorities.

Testing of the liquid transfer system was completed, the procedures were approved, the radiation work permit and ALARA documentation were finished, and the liquid legacy waste was successfully removed from the bowling ball cask. The liquid waste was put in temporary storage drums and transferred to the permitted storage location.

Fiscal year-to-date milestone performance (Enforceable Agreement [EA], DOE-HQ, Field Office, and DOE-RL) shows that no milestones were scheduled to be completed. There are no milestones overdue or forecasted to be late. The Milestone Achievement details, found following cost and schedule variance analysis, provide further information on all milestone types.

ACCOMPLISHMENTS

- Modified and submitted as scheduled Class 1 modifications to the 305-B chapter 7 (BEP) (planned)
- Completion of ROD regarding applicability of 29CFR1910.119 determined that 29CFR1910.119 is not applicable to the Laboratory and the operation of the Radioactive Liquid Waste System in the 325 Building. (unplanned)
- Chemically treated 90 liters of uranyl nitrate on schedule in October to allow it to be land disposed. (planned)
- Completed the Memorandum of Agreement with Bechtel Hanford Incorporated and obtained approval of the Acting Assistant Manager for Science and Technology for the transfer of five WIDS sites including ISV, 300 North Lysimeter, and three sites near the 331 building. (unplanned)

COST PERFORMANCE (\$M):

	BCWP	ACWP	VARIANCE
Science & Technology	\$1.9	\$1.9	(\$0)

There is a \$0.0 million cost variance. Further information at the PBS level can be found in the Cost Variance Analysis details section.

SCHEDULE PERFORMANCE (\$M):

	BCWP	BCWS	VARIANCE
Science & Technology	\$1.9	\$2.2	(\$0.3)

There is a \$0.3 million (fourteen percent) unfavorable schedule variance, which is primarily due to delays encountered with fiscal year start-up and resource and shipping drums unavailability. Further information at the PBS level can be found in the Schedule Variance Analysis details section.

ISSUES

Issue/Impact: Ecology Land Disposal Restrictions Inspection, Notice of Correction: During October 1998, the Washington State Department of Ecology (Ecology) directed the withdrawal from storage and sampling of six drums stored at Hanford's Central Waste Complex to verify compliance with land disposal restrictions (LDR) requirements. One of the six drums was generated at Pacific Northwest. On June 3, Ecology issued a Notice of Correction (NOC) to DOE-RL, FDH, and WMH alleging four violations and thirteen concerns, and calling for five corrective actions. The NOC also indicates that a penalty is being considered for three of the violations alleged.

Strategy/Status: Pacific Northwest is participating in the sitewide response to the NOC. The present strategy is to pursue two actions simultaneously. One action is to pursue resolution of the issues raised in the NOC via the TPA. The second action is to prepare responses to the technical issues raised in the NOC. Ecology's rejection of attempts to manage the NOC responses pursuant to the TPA has been appealed to the TPA Interagency Management and Integration Team (IAMIT). Consideration of the appeal began September 2 and will continue through January 25. During September, Ecology sent a letter indicating that the violations subject to penalties would be dealt with through the TPA process. It is not clear if this letter is binding on the IAMIT. The due date for the technical response to the NOC (Violation 4) has been extended further. The due date is now March 8.

Issue/Impact: Hanford Site Air Operating Permit Schedule Slips: The schedule for the Hanford Site Air Operating Permit (AOP) continues to slip because of delays by Ecology. The earliest possible issue date for the AOP is four months from the public comment period which is yet to be determined. At this time the earliest possible issue date for the AOP is May 2000, however this date will likely be pushed later into calendar year 2000.

Strategy/Status: Effluent Management Project staff will prepare a change request to adjust the project scope and schedule once the AOP issue date becomes more certain.

Issue/Impact: Lack of Funds to Implement SAR Update: Under the Facilities Surveillance and Maintenance Project, the most critical issue facing the RPL is the identified funding shortfall for implementation of the 1999 SAR update. The present estimated shortfall for priority-one items is \$765K.

Strategy/Status: Alternative funding sources are being explored to address the funding shortfall.

SCIENCE AND TECHNOLOGY WBS 1.7

FY 1999 COST/SCHEDULE PERFORMANCE - ALL FUND TYPES

Cumulative to Date Status

SCIENCE AND TECHNOLOGY WBS 1.7

			FYTD					AUTH	PTS
			BCWS	BCWP	ACWP	SV	CV	BSLN	BCWS
PBS									
ST01	PNNL Waste	Expense	2.2	1.9	1.9	(0.3)	(0.0)	15.7	14.4
	Management	CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>(0.0)</u>	<u>0.4</u>	<u>0.0</u>
	Sub-Total ST01		2.2	1.9	1.9	(0.3)	(0.0)	16.1	14.4
ST02	Science &	Expense	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Technologies	CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
	Sub-Total ST02		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total Science &	Expense	2.2	1.9	1.9	(0.3)	(0.0)	15.7	14.4
	Technology	CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>(0.0)</u>	<u>0.4</u>	<u>0.0</u>
	Total		2.2	1.9	1.9	(0.3)	(0.0)	16.1	14.4

\$ In Millions

COST VARIANCE ANALYSIS: (\$0.0M)

WBS/PBS

TITLE

1.7/ST01

PNNL Waste Management

Cause: The favorable cost variance reflects less than expected effort and costs on planned activities, efficiencies, and delayed billings.

Impact: None

Corrective Action: Ensure costs get transferred to FY 2000 work packages.

SCHEDULE VARIANCE ANALYSIS: (-\$0.3M)

WBS/PBS

TITLE

1.7/ST01

PNNL Waste Management

Cause: The unfavorable variance is primarily due to delays encountered with fiscal year start-up and resource and shipping drums unavailability.

Impact: Current schedule delays are not anticipated to impact completion of scope this fiscal year.

Corrective Action: Review possible revision to Program schedule to reflect availability of shipping drums.

SCIENCE AND TECHNOLOGY – WBS 1.7

MILESTONE ACHIEVEMENT

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	0	0	0	0	0	0	0	0
DOE-HQ	0	0	0	0	0	0	0	0
FO	0	0	0	0	0	0	0	0
RL	0	0	0	0	0	41	0	41
Total Project	0	0	0	0	0	41	0	41

MILESTONE EXCEPTION REPORT

<u>Number/WBS</u>	<u>Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
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OVERDUE - 0

FORECAST LATE – 0

SECTION H

SUPPORT

PROJECT MANAGERS

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SUMMARY

Mission Support, Project Baseline Summary (PBS) OT01, consists of four sub-projects:

- Planning and Integration (Work Breakdown Structure (WBS 1.8.2.1))
- Systems Engineering (WBS 1.8.2.2)
- Environmental Compliance (WBS 1.8.2.3)
 - The Environmental Compliance Program is composed of two elements. These two elements were stand-alone programs known as the Hanford Environmental Management Program (HEMP) and the Effluent and Environmental Monitoring Program (EEM) prior to FY99. Although there is a single program, these elements retain their identity on the Integrated Priority List as two separate Units of Analysis.
- Public Safety and Resource Protection (WBS 1.8.2.4)

Fiscal-year-to-date milestone performance (EA, DOE-HQ, FO, and RL) shows that 7 of 8 milestones (88 percent) were completed on or ahead of schedule, 1 milestones (12 percent) was overdue. The Milestone Achievement details, found following cost and schedule variance analysis, provide further information on all milestone types. Additional details on the forecast late milestone can be found in the milestone exception report starting on page H: 11.

Site, Planning and Integration (SP&I)- During October, SP&I hosted the DOE Phase I review of the Fluor Daniel Hanford, Inc. (FDH) Integrated Environmental, Safety and Health Management System (ISMS) Business, Budgets and Contracts (BBC) verification team. The team, consisting of four members, spent nearly three weeks onsite while conducting its review. The results of the verification were very positive: all three BBC objectives were met, several noteworthy practices were acknowledged (e.g., the change control process is logically driven and well documented; ES&H is integral and visible in work planning, etc.), and identified opportunities for improvement were minor. This support was unplanned work scope in support of a HQ deliverable.

SP&I also completed a review of project detailed and summary baseline schedule products. This review included validation of coding standard compliance, reconciliation of milestone information against the Central Milestone Module, evaluation of inter-project logic ties, and overall quality of project schedules. Meetings will be scheduled with appropriate project control organizations where corrective actions are necessary.

Prepared for the update of project baselines and supporting business systems that will result from the RL/ORP and PHMC restructuring initiatives. Finalized new cost centers aligned to the new PHMC organizational structure, updated planning rates for labor and overhead, developed new rate shells for the projects to utilize in the Primavera P3 tool used to perform resource pricing updates, and developed a training package for field personnel to communicate upcoming changes. It should be noted that implementation of these changes is critical to the support of pricing updates of the FY 2001-2006 project priority lists. These updates are required to support a mid-January stakeholder involvement session on FY2002 work priorities.

Support was also provided to the Management Systems Division in evaluating DOE-HQ data reporting requirements (IPABS-IS) and determining the site approach for providing the information in accordance with DOE-HQ's defined deliverable dates. Near term deliverables (Actual Performance Metrics data for FY 1999, and FY 2000 BCWS [by month] by Project Baseline Summary, Technical Task Package, and Line Items) will be input directly to the DOE-HQ system. Where feasible, future submissions will be provided electronically from Hanford site systems.

In October, work also began on the site stewardship estimate for the time period of 2047 through 2070. A draft estimate is due on December 3, 1999, with a final product due December 10, 1999. This work scope was unplanned in support of a new HQ requirement.

In November, the *Site Paths to Closure* draft was updated to be consistent with the final Hanford Comprehensive Land Use Plan Environmental Impact Statement and to address comments received from the State of Oregon. This update supports planned submittal of the document to DOE-HQ in early December with final release for publication expected from HQ in mid-December.

The initial RL FY2000 Budget allocation reductions were received in early November kicking off a number of scenario developments. The prime contractors assisted in identifying additional reductions with impacts to TPA milestones and decisions on allocations were approved in late November. Final allocations by control points and Project Baseline Summary (PBS) will be impacted by the assessment of a potential 1% rescission imposed by Congress as they passed the remaining appropriations for FY 2000. These decisions will be known by mid December for integration into the FY 2001 President's Budget Request.

SP&I has supported the evaluation of transferring Safeguard and Security activities from the current indirect budget to a direct budget under the Safeguard and Security Office (SO) instead of the Environmental Management and Nuclear Energy Programs. Transfers of Safeguard and Security will reduce the life cycle costs for Project Baseline Summaries (PBS) as well as appropriation control points. DOE HQ has not provided specific guidance on how to effect the transfer, however, the OMB A-11 cross cut summaries has been updated to reflect what is within the budget for FY 2000 and FY 2001 versus the total requirements. Final decisions and transfer of funding authority is expected during December.

During November, DOE-HQ conducted a three-hour videoconference training session on the use and operation of their newly deployed IPABS - Project Execution Module (PEM) that was attended by key personnel from RL, the prime contractors, and the Office of River Protection. Quarterly milestone status reporting is required for all PBSs and TTPs. IPARS/HANDI tools are being modified to collect, format, report, and provide batch-feed capabilities to satisfy these HQ requirements. It is planned to electronically submit the first quarterly report in January 2000.

SP&I has completed an update of the P3 resource library to reflect revised overhead rates being implemented in January. The library was also updated to reflect the addition of LMH overhead rates resulting from the split-off of the ORP project. Training sessions are being conducted with the projects on these rate changes. Project baselines are being updated to reflect these changes.

This update effort will also support the upcoming project priority list development efforts in support of stakeholder reviews scheduled in January.

Site Systems Engineering (SSE) – Site Systems Engineering worked with Frontline Solutions to develop a modeling capability for “what if” scenarios on the Hanford Site Environmental Management Specification (HMEMS). The model for the Spent Nuclear Fuel (SNF) is operational; the model for the 300 Area is currently being developed.

The HMEMS was formally approved by DOE-RL

Environmental Compliance Program (ECP) –

Spill/Release Reporting:

Supported eleven (11) non-reportable spill/releases of a hazardous substance or petroleum product released to the environment and reported internally to the PHMC Environmental SPOC (Environmental Services). There were three (3) reportable events, with a release to the environment and six (6) reportable non-compliance events, without a release to the environment that met the requirement to verbally notify the off-site regulator(s).

Inspection Coordination:

- Supported the Washington State Department of Health's radiological inspection of the FFTF facility. The inspection centered on the facilities minor stacks.
- Supported the Washington State Department of Ecology's inspection of the WESF facility. The inspection went well. The areas covered in the inspection were WESF RCRA Part A Compliance, questions concerning Beta Monitoring, Capsule Detection technology and employee training and document review.
- Assisting PFP to prepare for upcoming Tri-Party Agreement Milestone M32 Ecology inspection.
- Assisting 219-S to prepare for upcoming Tri-Party Agreement Milestone M32 Ecology inspection.

ECP Baseline Assessment:

Participated in baseline assessment of the ECP that was performed by the U. S. Army Corps of Engineers who were under contract to DOE-RL. This assessment meets the DOE-HQ requirement for performance of independent baseline assessment every three years. Preliminary results of the assessment will be available in December.

Public Safety and Resource Protection (PSRP) – The PSRP Program Projects were all conducted in accordance with the scope, milestones, and budget defined in the FY 2000 Public Safety and Resource Protection Program (PBS # RL-0T01) Multi-Year Work Plan during November. One Cultural Resources Project milestone was delayed slightly with DOE concurrence.

ACCOMPLISHMENTS

- The deliverable, Submit the Project Hanford Performance Report for September, 1999 was delivered on November 5, 1999.
- The deliverable, Submit 1st Quarter PHMC Staffing & Variance Report was completed on November 5, 1999.
- The deliverable, Submit Summary of Recommended MPG Changes was delivered on November 9, 1999.
- The deliverable, Submit IRB Corporate Forum Presentation was completed on November 15, 1999.
- The deliverable, Coordinate/Develop BMOP objectives, measures/expectations for FY 2000 1st quarter was completed on November 24, 1999.
- The milestone, ECP-00-302, RCRA Permit Class 1 Modification - Quarter 1, due to DOE-RL on 10/01/99, was submitted on 9/30/99, 1 day ahead of schedule.
- The milestone, ECP-00-401, Provide RL with Air/Water Permitting Schedule, due on 11/01/99, was completed on schedule.
- The milestone, ECP-00-702, Annual Report of Anticipated Costs for Closure and Post Closure of TSD Units, due on 10/22/99, was completed 10/06/99, 16 days ahead of schedule.
- The milestone, ECP-00-901, Issue Quarterly NESHAP Status Report for EPA, due on 10/22/99, was completed 10/18/99, 4 days ahead of schedule.

B.M. Gillespie presented "Pacific Northwest Intercomparison Sampling Program: Why Do Inter-comparison Results Differ?" at the 45th Annual Conference on Bioassay, Analytical, and Environmental Radiochemistry held in Washington, D.C., October 21.

A letter report was issued jointly by the Surface Environmental Surveillance Project and the Washington Department of Health summarizing a survey of soil in the former 1100 Area:

- Hanf, R.W., and R.E. Jaquish. October 29, 1999. Radiological Surveillance of Surface Soil Samples Collected in the Former 1100 Area in July 1999. Letter report.

In fulfillment of a DOE policy to conduct periodic (every 3 year) validation reviews of multi-year work plan (MYWP) baseline cost estimates, a review of the PS&RPP FY 2000 MYWP was initiated by the U.S. Army Corps of Engineers on November 15 and 16. The Corps review also includes the Environmental Management Program operated by Flour Daniel Hanford. Several PS&RPP staff provided varying levels of support during the November 15th and 16th effort, which essentially completes the PS&RPP component of the review. Preliminary discussions with the Corps indicate that there seem to be few issues to resolve on the PS&RPP MYWP, and that "PNNL was very helpful, knowledgeable and informative."

Staff participated in the Health of the Hanford Site 3rd Annual Meeting, November 2, and presented a poster/computer display of the Ecosystem Monitoring Web page. Staff also presented results from an assessment of elk-related impacts on the Fitzner-Eberhardt Arid Lands Ecology ecosystem.

COST PERFORMANCE (\$M):

	BCWP	ACWP	VARIANCE
1.8 Support	\$3.6	\$2.4	+\$1.2

The \$1.2 million (thirty three percent) favorable cost variance is due to labor costs less than anticipated, costs against accruals that were estimated in FY 1999 that have not been realized, and less than anticipated activity in some level-of-effort activities. Further information at the PBS level can be found in the following Cost Variance Analysis details.

SCHEDULE PERFORMANCE (\$M):

	BCWP	BCWS	VARIANCE
1.8 Support	\$3.6	\$3.9	-\$0.3

The \$.3 million (eight percent) unfavorable schedule variance is within acceptable reporting thresholds.

ISSUES

Alignment of HANDI to FDH and DOE Restructures: Efforts to reconfigure project performance reports (in HANDI) in line with the PHMC and DOE-RL/ORP restructuring have not been initiated, pending finalization/approval of changes to the work breakdown structure. Delay in finalizing this will impact the ability to produce the Hanford Site Performance Report, and other reporting products.

Strategy/Status: SP&I continues to support several corporate initiatives, including development of output measures and associated system reporting capabilities, possible revision of management control system procedures, potential changes in coding standards (i.e., Code of Accounts), and potential changes to standard project reporting requirements. The effects of these initiatives on existing processes and the potential for unplanned costs must be monitored and implemented in a controlled manner.

MISSION SUPPORT WBS 1.8

FY 1999 COST/SCHEDULE PERFORMANCE - ALL FUND TYPES Cumulative to Date Status

MISSION SUPPORT WBS 1.8

			FYTD					AUTH	PTS
			BCWS	BCWP	ACWP	SV	CV	BSLN	BCWS
SITE SUPPORT									
1.8.1	RL Directed Su	Expens	0.0	0.0	(1.3)	0.0	1.3	18.0	18.0
OT04		CENRT	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	SITE SUPPORT Total		0.0	0.0	(1.3)	0.0	1.3	18.0	18.0
MISSION SUPPORT									
1.8.2	Mission Spprt/	Expense	3.7	3.6	2.6	(0.1)	1.0	23.8	26.7
OT01	Other MYPs	CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	0.2	0.0	(0.2)	(0.2)	0.2	1.8	1.4
	Mission Support Total		3.9	3.6	2.4	(0.3)	1.2	25.6	28.1
SUPPORT TOTAL									
		Expense	3.7	3.6	1.3	(0.1)	2.3	41.8	44.6
		CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	0.2	0.0	(0.2)	(0.2)	0.2	1.8	1.4
	Total Support		3.9	3.6	1.2	(0.3)	2.4	43.6	46.0

\$ In Millions

COST VARIANCE ANALYSIS: (+ \$2.4)

WBS

TITLE

1.8.2/OT01

Mission Support

Description and Cause: The 1.0 (38 percent) favorable cost variance has several contributing factors. Labor costs were less than anticipated and costs against accruals that were estimated in FY 1999 have not been realized and less than anticipated activity in some level-of-effort activities.

Impact: None.

Corrective Action: None.

SCHEDULE VARIANCE ANALYSIS: (-\$0.3)

WBS

TITLE

1.8.2/OT01

Mission Support

Description and Cause: The \$0.3 (9 percent) unfavorable schedule variance is within acceptable reporting thresholds.

Impact: None.

Corrective Action: None.

MISSION SUPPORT – WBS 1.8

MILESTONE ACHIEVEMENT

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	4	0	0	0	0	25	0	29
DOE-HQ	0	0	0	0	0	1	0	1
FO	0	0	0	0	0	1	0	1
RL	3	0	0	1	0	20	0	24
Total Project	7	0	0	1	0	47	0	55

Total Project

RL

MILESTONE EXCEPTION REPORT

<u>Number/WBS</u>	<u>Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
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OVERDUE - 1

RLOT015005 RL		Complete FY 1999 Hanford Cultural	11/30/99	12/15/99
1.8.2.4		Resources Laboratory Annual Report		

Cause: The Hanford Cultural Resources Laboratory Annual report (RL Milestone RLOT015005) will be delayed for two weeks. This is due to additional changes identified following review and the lack of time for the project manager to make the changes in November. The situation was discussed with the monitor and a two-week delay was agreed to.

Impacts: None.

Corrective Action: None.

FY 1999 OVERDUE - 1

PCA-98-001 RL		Develop Electronic Linkage to	09/30/99	Proposed
1.8.2.1		DOE-HQ IPABS		Deletion

Cause: Requirements for electronic batch feeds to the DOE-HQ IPABS information system were not received from DOE until late in November.

Impacts: Must do manual reporting until system is functioning.

Corrective Action: Requirements have now been identified and system modifications and development are proceeding with completion expected in late January 2000. A change request has been prepared that will re-phase the workscope.

SECTION I

HAMMER

PROGRAM MANAGERS

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Phone: (509) 376-9403

SUMMARY

The Hazardous Materials Management and Emergency Response (HAMMER) mission area consists of the HAMMER project, WBS 1.9.1.1, Project Baseline Summary (PBS) HM01.

Volpentest HAMMER's first priority is to deliver hands-on training to the Hanford workforce. Through November three hundred fourteen classes were conducted at the Volpentest HAMMER facility, for a total of 5,007 Hanford site student days. Highest attended health and safety classes included Hazardous Waste Operations, Respiratory Protection, Radiation Worker II Requalification, Basic Medic First Aid and Fire Extinguisher Training.

HAMMER sponsored and conducted its first Industrial Basic Fire Brigade course October 11, 12 and 13. The class consisted of students from Portland General Electric, Energy Northwest and Williams Pipeline. Steve Williams, the instructor for the course, was very pleased with support he received from HAMMER staff and the quality of the facility. Several supervisors from the sponsoring companies observed the training. Energy Northwest indicated that they would like to schedule another class within the next four months. Positive comments were given on the evaluations for the curriculum and the facilities used during the training.

The HAMMER props were used for a new Industrial Fire Brigade customer October 13, and 14. Fire Operations has been working to secure business from Advanced Silicon Company of Moses Lake. Advanced Silicon used the facility and also contracted for instructors through Grant County Fire District 5. Grant 5, a regular customer, was established through the HAMMER sponsored Burn-To-Learn program.

There were two off-site Suspect Counterfeit Items classes in the month of October. Training was presented to 76 Bechtel Nevada personnel October 18 and 21, and to 10 new members of the Quality Assurance Working Group, which met October 19, 20, and 21 in Las Vegas, Nevada.

On October 27, the Volpentest HAMMER Training and Education Center and Protection Technology Hanford co-hosted a video systems demonstration for security and law enforcement professionals put on by URS Electronics, Inc. Security and Law Enforcement professionals from throughout the state of Washington attended the demonstration.

On October 29, the Centralia Police Department conducted Special Weapons and Tactics (SWAT) team training at HAMMER's Law Enforcement & Security Training Center. This is the first time that a police agency from the west side of the state used HAMMER resources for a specific training program.

Construction activities are continuing at HAMMER's Training Support Building Room 23. The room, formally designated as the Suit Drying Room, is being remodeled and reconfigured to accommodate an additional Computer Based Training (CBT) room. The room will be primarily used for radworker training, which in turn will free up the current CBT room, located in the Administration Building, for other training classes.

Environmental Management Performance Report – November 1999
Section I – HAMMER

Milestone performance (EA, DOE-HQ, Field Office, and RL) shows that there were no milestones due fiscal year-to-date.

ACCOMPLISHMENTS

- Trained 5,007 Hanford site student days at HAMMER. (Planned)
- Sponsored and conducted the first Industrial Basic Fire Brigade course on October 11, 12 and 13. (Planned)
- New Industrial Fire Brigade customer uses HAMMER props. (Planned)
- Conducted two off-site Suspect Counterfeit Items classes. (Planned)
- Co-hosted a video systems demonstration for security and law enforcement professionals. (Planned)
- Conducted SWAT team training at HAMMER's Law Enforcement & Security Training Center. (Planned)
- Construction activities continue at HAMMER's Training Support Building Room 23. (Planned)

COST PERFORMANCE (\$M):

	BCWP	ACWP	VARIANCE
HAMMER	\$0.4	\$0.7	- \$0.4*

*Rounding

The \$0.4 million unfavorable cost variance is due to progress not recorded in the Performance Tracking System. There was a positive cost variance due to fiscal year startup activities. Further information at the PBS level can be found in the following Cost Variance Analysis details.

SCHEDULE PERFORMANCE (\$M):

	BCWP	BCWS	VARIANCE
HAMMER	\$0.4	\$0.9	- \$0.5

The \$0.5 unfavorable cost variance is due to progress not recorded in the Performance Tracking System. There would not have been a schedule variance if performance had been processed.

ISSUES

Nothing to report.

HAMMER

WBS 1.9

FY 1999 COST/SCHEDULE PERFORMANCE - ALL FUND TYPES Cumulative to Date Status

HAMMER WBS 1.9

			FYTD					AUTH	PTS
			BCWS	BCWP	ACWP	SV	CV	8.5	BCWS
PBS									
HM01	HAMMER	Expense	0.9	0.4	0.7	(0.5)	(0.4)	5.5	5.5
		CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
	Total	HAMMER	0.9	0.4	0.7	(0.5)	(0.4)	5.5	5.5

\$ In Millions

The unfavorable cost variance is due to progress not recorded in the Performance Tracking System. There was a positive cost variance due to fiscal year startup activities.

Unfavorable cost variance is due to progress not recorded in the Performance Tracking System. There would not have been a schedule variance if performance would have been processed.

COST VARIANCE ANALYSIS: (-\$0.4M)

<u>WBS/PBS</u>	<u>TITLE</u>
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1.9.1.1/HM01	HAMMER
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Description and Cause: The unfavorable cost variance is due to progress not recorded in the Performance Tracking System. There was a \$0.1 million (13 percent) favorable cost variance due to fiscal year startup activities.

Impact: Minimal.

Corrective Action: Startup activities relating to purchase order contracts were finalized in November. Costs associated with the purchase order contracts will be included in the December reports.

SCHEDULE VARIANCE ANALYSIS: (-\$0.5M)

WBS

TITLE

1.9.1.1/HM01 HAMMER

Description and Cause: Unfavorable cost variance is due to progress not recorded in the Performance Tracking System. There would not have been a schedule variance if performance would have been processed.

Impact: None.

Corrective Action: None.

HAMMER – WBS 1.9

MILESTONE ACHIEVEMENT

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	0	0	0	0	0	0	0	0
DOE-HQ	0	0	0	0	0	0	0	0
FO	0	0	0	0	0	0	0	0
RL	0	0	0	0	0	5	0	5
Total Project	0	0	0	0	0	5	0	5

MILESTONE EXCEPTION REPORT

<u>Number/WBS</u>	<u>Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
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OVERDUE - 0

FORECAST LATE - 0

SECTION J

TWRS REGULATORY UNIT

RL PROJECT DIRECTOR

D. C. Gibbs
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SUMMARY

The TWRS Regulatory Unit (RU) consists of the Office of Safety Regulation of the Tank Waste Remediation System (TWRS)-Privatization Contractor, WBS 1.10.1.1 (Project Baseline Summary [PBS] RG01). PBS RG01 defines the cost and schedule baseline associated with Program Support (subcontractor and national laboratory personnel) and is the focus of this section.

The Regulatory Unit conducted an initial inspection of Safety Integration of the BNFL design. The inspection assessed integration aspects of the contractor's ISM program, safety oversight, and safety culture. The inspection resulted in one finding where the contractor was not following procedures. This finding was not considered significant. Inspection results are described below:

- BNFL was adequately managing the integration of safety throughout the organization
- Safety committees were addressing safety issues at most levels of the operations
- BNFL had developed an effective safety improvement program to address industrial safety concerns
- Safety integration was evident throughout the contractor's design process
- BNFL management and staff reflected a strong integrated safety culture that was evident in all areas reviewed.

The Regulatory Unit conducted a follow-up inspection of BNFL's performance in maintenance of the authorization basis. The follow-up inspection resolved inconsistencies identified while documenting inspection findings from the October 1999 Authorization Basis Management inspection. The inspectors identified two findings in the follow-up inspection. The findings included: 1) modifying a quality-related record without first obtaining review and approval by the originating organization; 2) two examples of failure to follow quality-related procedures.

These findings combined with the two findings identified during the initial inspection indicate that additional BNFL management attention is warranted in maintaining the authorization basis current. The inspections contribute to the RU mission by providing oversight in accordance with the contract with BNFL Inc.

The RU observed five single discipline design reviews and a Design Committee meeting. The reviews contribute to the RU mission by providing detailed information concerning structures, systems and components that may be part of the TWRS Privatization-facility design. The design reviews observed by the RU staff were:

- Pretreatment Ion Exchange System Piping and Instrumentation Diagrams
- Uninterruptible Power Supply Specification and Data Sheet
- Pretreatment Laboratories, Sampling, and Maintenance
- HLW Melter Removal and HLW and LAW Facility Solid Waste Handling
- Process Design Philosophy

BNFL deferred three multi-discipline design reviews of the primary facility layouts from October to the December/January timeframe due to an effort to reduce the size of the primary facilities and reduce costs. Five design reviews are planned for December.

Section J - TWRS Regulatory Unit

BNFL and the Regulatory Unit conducted a topical meeting to discuss the results of the BNFL integrated safety management (ISM) Cycle 1 evaluation of hazards, control strategies, design basis events and standards selection. In ISM Cycle 1 BNFL evaluated work hazards and established control strategies for the evolving design. In ISM Cycle 2 BNFL will refine further the hazard analysis and control strategy selection, select construction and operating standards and identify design basis events. BNFL indicated the results of Cycle 1 will be used as the starting basis for its ISM Cycle 2 process. The results of Cycle 2 will be discussed in a future topical meeting between BNFL and the Regulatory Unit. The Topical Meetings contribute to the RU mission by reaching closure on previously identified technical issues.

Dr. Clark Gibbs and Mr. Robert Griffith of the RU met with representatives of DOE Headquarters, the U.S. Nuclear Regulatory Commission (NRC), and the Defense Nuclear Facilities Safety Board in Washington D.C. to present the quarterly briefing of regulatory activities in support of the BNFL TWRS-P Waste Treatment Plant (WTP). Topics presented included:

- Oversight of BNFL design review and integrated safety management activities
 - Inspections performed and associated findings
 - Review guidance developed for TWRS-P WTP submittals
 - The amendment to the tank farms FSAR (Office of River Protection) for waste retrieval and waste feed delivery
 - The Senior Expert Review of the RU activities
 - Implementation of industrial health and safety responsibilities
 - TWRS-P WTP regulatory documents issued
 - Developments in the revision of the memorandum of understanding between the DOE and NRC.
- No actions resulted from the briefing.

At the request of the Carlsbad Area Office (CAO) Manager, Mrs. Inez Triay, Messrs. Ronald Light and Robert Barr of the RU presented the TWRS-P Regulatory Program concept to the CAO. This presentation was requested due to the M&O and Technical Assistance contracts coming up for bid in FY 2000. The RU has offered to assist the CAO in their deliberations regarding the desirability and practicality of implementing a Regulatory Unit concept.

Fiscal-year-to date milestone performance (EA, DOE-HQ, Field Office, and RL) shows that one milestone (50 percent) was completed on or ahead of schedule and one (50 percent) is overdue. The Milestone Achievement details, found following cost and schedule variance analysis, provide further information on all milestone types, both fiscal year-to-date and remaining scheduled. Additional details on the overdue milestones can be found in the milestone exception report starting on page J: 9.

COST PERFORMANCE (\$M):

	BCWP	ACWP	VARIANCE
TWRS Regulatory Unit	\$0.7	\$0.1	\$0.7*

*Rounding

The unfavorable cost variance is due primarily to errors in DISCAS actual cost download. True variance is a favorable \$178K due to a FY 1999 year end accrual adjustment as well as less than anticipated costs associated with CAR Preparation activities, Internal Policy Development and Design Reviews.

SCHEDULE PERFORMANCE (\$M):

	BCWP	BCWS	VARIANCE
TWRS Regulatory Unit	\$0.7	\$0.7	\$ 0.0

There is no schedule variance.

TWRS REGULATORY UNIT **WBS 1.10** **FY 1999 COST/SCHEDULE PERFORMANCE - ALL FUND TYPES** **Cumulative to Date Status**

TWRS REGULATORY UNIT WBS 1.10

		FYTD					AUTH	PTS
		BCWS	BCWP	ACWP	SV	CV	BSLN	BCWS
PBS								
RG01	Expense	0.7	0.7	0.1	(0.0)	0.7	4.3	5.8
	CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	GPP/LI	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
	Total	0.7	0.7	0.1	(0.0)	0.7	4.3	5.8

\$ IN MILLIONS

COST VARIANCE ANALYSIS: (+ \$0.7M)

WBS/PBS

Title

1.10.1.1/RG01

TWRS Regulatory Unit

Description and Cause: The cost variance is due primarily to errors in DISCAS actual cost download. True variance is a favorable \$178K due to a FY 1999 year end accrual adjustment as well as less than anticipated costs associated with CAR Preparation activities, Internal Policy Development and Design Reviews.

Impact: None.

Corrective Action: Favorable cost variance will be reprogrammed to initiate new emergent priority workscope within the RU.

SCHEDULE VARIANCE ANALYSIS: (\$0.0M)

WBS/PBS

Title

1.10.1.1/RG01

TWRS Regulatory Unit

Description and Cause: There is no schedule variance.

Impact: None.

Corrective Action: None.

TWRS REGULATORY UNIT – WBS 1.10 MILESTONE ACHIEVEMENT

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	0	0	0	0	0	0	0	0
DOE-HQ	0	0	0	0	0	0	0	0
FO	0	0	0	0	0	6	0	6
RL	1	0	0	1	0	11	0	13
Total Project	1	0	0	1	0	17	0	19

Total Project

MILESTONE EXCEPTION REPORT

<u>Number/WBS</u>	<u>Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
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OVERDUE - 1

LLP-00-011	RL	Authorization Basis Inspection	11/08/99	12/09/99
1.10.1.1		Report Issued		

Cause: The issuance of the Authorization Basis Inspection Report was delayed due to inconsistencies in records associated with BNFL's Radiation Protection Program.

Impact: Authorization Basis Inspection Report will be issued approximately one month late with no impact to the RU's critical path.

Corrective Action: The RU conducted a follow-up inspection in late November and the results from this follow-up inspection will be incorporated into the final report to be issued 12/9/99.

FY 1999 OVERDUE - 1

LLP-99-009	FO	Issue Revised MOA	02/26/99	Proposed
1.10.1.1				Deletion

Cause: DOE-HQ did not take action on the MOA revision.

Impact: None.

Corrective Action: This version of the MOA has been superceded prior to HQ approval. Consequently, the milestone will be deleted.

SECTION K

NATIONAL PROGRAMS

NATIONAL PROGRAMS WBS 1.11

FY 1999 COST/SCHEDULE PERFORMANCE - ALL FUND TYPES Cumulative to Date Status

NATIONAL PROGRAMS

WBS 1.11

			FYTD					AUTH	PTS
			BCWS	BCWP	ACWP	SV	CV	BSLN	BCWS
1.11									
PBS									
OT02	Transportation	Expense	0.3	0.3	0.1	0.0	0.2	0.0	2.0
	& Packaging	CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
	Sub-Total OT02		0.3	0.3	0.1	0.0	0.2	0.0	2.0
WM07	Waste	Expense	0.4	0.4	0.2	0.0	0.2	3.8	3.8
	Minimization	CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
	Sub-Total WM07		0.4	0.4	0.2	0.0	0.2	3.8	3.8
OT03	Richland	Expense	0.0	0.0	0.0	(0.0)	(0.0)	0.4	0.3
	Analytical	CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
	Sub-Total OT03		0.0	0.0	0.0	(0.0)	(0.0)	0.4	0.3
OT06	Emergency	Expense	0.0	0.0	0.2	0.0	(0.2)	0.0	0.0
	Preparedness	CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
	Sub-Total OT06		0.0	0.0	0.2	0.0	(0.2)	0.0	0.0
	Total	Expense	0.7	0.7	0.5	(0.0)	0.2	4.2	6.1
		CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
	Total		0.7	0.7	0.5	(0.0)	0.2	4.2	6.1

\$ IN MILLIONS

NATIONAL PROGRAMS – WBS 1.11

MILESTONE ACHIEVEMENT

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	0	0	0	0	0	0	0	0
DOE-HQ	0	0	0	0	0	0	0	0
FO	0	0	0	0	0	0	0	0
RL	0	0	0	0	0	0	0	0
Total Project	0	0	0	0	0	0	0	0

SECTION L

FAST FLUX TEST FACILITY

PROJECT MANAGERS

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SUMMARY

The Fast Flux Test Facility Project (FFTF) consists of WBS 2.1.1.1.21.1, Project Baseline Summary (PBS) RL-MS01, the Fast Flux Test Facility (FFTF) and WBS 1.12.1.1, PBS RL-TP11, the 309/Plutonium Recycle Test Reactor (PRTR) and NE Legacies. The performance tables and variance analysis that follow are for the combined totals of these two unless otherwise specified.

In October and November, the FFTF mission area technical accomplishments included machining in the 327 hot shop of the lower end bell and shaft on the Low Level Flux Monitor Blower (E230-R) and return of those parts to FFTF. Mechanical re-assembly of the E230-R Blower is nearly complete as planned. Revision 1 to the FFTF S/RIDS is also nearing completion as planned. DOE-RL comments have been incorporated, and the updated S/RIDS have been reviewed and approved by the FDH Interpretive Authorities and the RL Technical Reviewers. Sodium removal from the small 221-T Tank was completed as planned as part of the Nuclear Energy Legacies Deactivation. Testing of the FFTF Y2K contingency modifications was completed to allow the G3 Turbine Generator to carry the necessary plant electrical loads in case of loss of off-site power. The mechanical and electrical portions of the modification to install a hot gas bypass system for the FFTF ex-containment chillers E-22 and E-23 were completed on schedule. FFTF continued to build on safety performance with over 1.3 million hours worked since the last lost workday accident. The last OSHA recordable accident occurred in September 1998. A DOE HQ/RL team reviewed the FFTF FY 2000 cost estimate and were satisfied with the estimate and backup materials.

Fiscal-year-to-date milestone performance (EA, DOE-HQ, FO, and RL) shows no milestones are due.

ACCOMPLISHMENTS

- Machining of the lower end bell and shaft on the E230-R Bearing Replacement was completed in the 327 hot shop and the parts returned to FFTF. Mechanical re-assembly of the E230-R Blower is nearing completion. (Planned)
- Revision 1 to the FFTF S/RIDS is nearing completion. DOE-RL comments have been incorporated, and the updated S/RIDS have been reviewed and approved by the FDH Interpretive Authorities and the RL Technical Reviewers. (Planned)
- Sodium removal from the small 221-T Tank was completed as part of the Nuclear Energy Legacies Deactivation. (Planned)
- Testing of the FFTF Y2K contingency modifications was completed to allow the G3 Turbine Generator to carry the necessary plant electrical loads in case of loss of off-site power. (B10-00-003)

Section L - Fast Flux Test Facility (ART)

- The mechanical and electrical portions of the modification to install a hot gas bypass system for the FFTF ex-containment chillers E-22 and E-23 was completed. (Planned)
- FFTF continued to build on safety performance with over 1.3 million hours worked since the last lost workday accident. The last OSHA recordable accident occurred in September 1998.
- A DOE HQ/RL team reviewed the FFTF FY 2000 cost estimate and were satisfied with the estimate and backup materials.

COST PERFORMANCE (\$M):

	BCWP	ACWP	VARIANCE
Fast Flux Test Facility Project	\$6.5	\$5.6	+\$0.9

The favorable cost variance of \$.9M (13.8 percent) is due to reassignment of personnel and underruns in contracts and materials.

SCHEDULE PERFORMANCE (\$M):

	BCWP	BCWS	VARIANCE
Fast Flux Test Facility Project	\$6.5	\$6.6	-\$0.1

The -\$0.1 (1.5 percent) unfavorable schedule variance is within the established 4 percent unfavorable threshold.

ISSUES

The FY 2000 budget guidance has \$28M for FFTF and \$1.4M for NE Legacies Activities: The FFTF budget is significantly under 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.

Strategy: DOE-HQ has submitted a reprogramming request to Congress for supplemental funding. Twenty-four FFTF staff were reassigned to other projects in October.

FAST FLUX TEST FACILITY PROJECT WBS 1.12/2.1.1.1.21

FY 1999 COST/SCHEDULE PERFORMANCE - ALL FUND TYPES Cumulative to Date Status

FAST FLUX TEST FACILITY PROJECT

WBS 1.12/2.1.1.1.21

			FYTD					AUTH	PTS
			BCWS	BCWP	ACWP	SV	CV	BSLN	BCWS
PBS									
TP11	Advanced	(1) Expense	0.2	0.2	0.1	0.0	0.1	1.3	1.3
	Reactors	CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
	Total		0.2	0.2	0.1	0.0	0.1	1.3	1.3
MS01	N/E	(2) Expense	6.4	6.3	5.4	(0.1)	0.9	41.8	41.8
		CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
	Total		6.4	6.3	5.4	(0.1)	0.9	41.8	41.8
	Advanced	Expense	6.6	6.5	5.6	(0.1)	0.9	43.1	43.1
	Transition	CENRTC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		GPP/LI	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
	Total		6.6	6.5	5.6	(0.1)	0.9	43.1	43.1

\$ In Millions

- (1) Represents Environmental Management sponsored NE Legacies and 309 Building surveillance and maintenance as well as deferred decontamination of these facilities.
- (2) Portrays combined DOE Nuclear Energy and Environmental Management funded Fast Flux Test Facility Standby.

COST VARIANCE ANALYSIS: (+ \$0.9M)

WBS/PBS

Title

2.1.1.1.21/MS-01

1.12/TP11

Fast Flux Test Facility Project

Description and Cause: The cost variance results primarily from staffing below the budgeted baseline. This includes 9 positions, which were open at the beginning of the year and 24 staff who were reassigned at the end of October. Some contract cost was also not received.

Impact: Delays are expected on completion of the Solid Waste Cask design in FY 2000 and in its final repair. Impacts to health of the facility have not been quantified.

Corrective Action: The project will be rebaselined once the FY 2000 reprogramming request has been dispositioned and a funding level has been defined.

SCHEDULE VARIANCE ANALYSIS: (-\$0.1)

WBS/PBS

Title

2.1.1.1.21/MS-01

1.12/TP11

Fast Flux Test Facility Project

Description and Cause: The 1.5 percent unfavorable variance is within the established four percent unfavorable threshold.

Impact: None.

Corrective Action: None.

FAST FLUX TEST FACILITY PROJECT – WBS 1.12/2.1.1.1.21.1

MILESTONE ACHIEVEMENT

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	0	0	0	0	0	2	0	2
DOE-HQ	0	0	0	0	0	0	0	0
FO	0	0	0	0	0	0	0	0
RL	0	0	0	0	0	7	0	7
Total Project	0	0	0	0	0	9	0	9

MILESTONE EXCEPTION REPORT

<u>Number/WBS</u>	<u>Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
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OVERDUE – 6 (FY 1999)

B19-99-301	FO	Complete Transfer of Irradiated	10/30/98	In
2.1.1.1.21		Fuel to Dry Cask Storage (M-81-00-T02)		Abeyance

Cause: As a consequence of FFTF being placed in standby, facility transition work has been limited to activities that would not inhibit reactor restart and TPA work schedules are no longer achievable or appropriate.

Impact: No programmatic impact.

Corrective Action: Tri-Party Agreement Change Request M-81-98-01 approved 8/24/99 and FDH Change Request FFTF-00-01 approved 12/2/99 places M-81-00 series milestones and target dates in abeyance until the Secretary of Energy issues a final decision on whether or not to restart FFTF.

B19-99-302	FO	Complete Transfer of	10/30/98	In
2.1.1.1.21		Un-Irradiated Fuel to PFP (M-81-00-T03)		Abeyance

Cause: As a consequence of FFTF being placed in standby, facility transition work has been limited to activities that would not inhibit reactor restart and TPA work schedules are no longer achievable or appropriate.

Impact: No programmatic impact.

Corrective Action: Tri-Party Agreement Change Request M-81-98-01 approved 8/24/99 and FDH Change Request FFTF-00-01 approved 12/2/99 places M-81-00 series milestones and target dates in abeyance until the Secretary of Energy issues a final decision on whether or not to restart FFTF.

B19-99-303	FO	Complete Transfer of Special Fuel	10/30/98	In
2.1.1.1.21		to INEL for Storage (M-81-00-T04)		Abeyance

Cause: As a consequence of FFTF being placed in standby, facility transition work has been limited to activities that would not inhibit reactor restart and TPA work schedules are no longer achievable or appropriate.

Impact: No programmatic impact.

Corrective Action: Tri-Party Agreement Change Request M-81-98-01 approved 8/24/99 and FDH Change Request FFTF-00-01 approved 12/2/99 places M-81-00 series milestones and target dates in abeyance until the Secretary of Energy issues a final decision on whether or not to restart FFTF.

MILESTONE EXCEPTION REPORT

<u>Number/WBS</u>	<u>Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
B69-99-302	EA	Submit Hanford Site Sodium	10/31/98	In
1.12.1.1		Management Plan to Ecology (M-92-10)		Abeyance

Cause: As a consequence of FFTF being placed in standby, facility transition work has been limited to activities that would not inhibit reactor restart and TPA work schedules are no longer achievable or appropriate.

Impact: This milestone is proposed to be placed "in abeyance".

Corrective Action: Tri-Party Agreement Change Request M-92-98-01 approved 8/26/99 and FDH Change Request ART-2000-001 approved 12/7/99 places M-92-10 series milestones and target dates in abeyance until the Secretary of Energy issues a final decision on whether or not to restart FFTF.

B17-99-102	EA	Submit FFTF End Point Criteria	12/31/98	In
2.1.1.1.21		Document (M-81-03)		Abeyance

Cause: As a consequence of FFTF being placed in standby, facility transition work has been limited to activities that would not inhibit reactor restart and TPA work schedules are no longer achievable or appropriate.

Impact: No programmatic impact.

Corrective Action: Tri-Party Agreement Change Request M-81-98-01 approved 8/24/99 and FDH Change Request FFTF-00-01 approved 12/2/99 places M-81-00 series milestones and target dates in abeyance until the Secretary of Energy issues a final decision on whether or not to restart FFTF.

B19-99-401	FO	Complete Interim Decay Storage/ Fuel Storage Facility Sodium Drain	12/31/98	In
2.1.1.1.21		(M-81-04-T02)		Abeyance

Cause: As a consequence of FFTF being placed in standby, facility transition work has been limited to activities that would not inhibit reactor restart and TPA work schedules are no longer achievable or appropriate.

Impact: No programmatic impact.

Corrective Action: Tri-Party Agreement Change Request M-81-98-01 approved 8/24/99 and FDH Change Request FFTF-00-01 approved 12/2/99 places M-81-00 series milestones and target dates in abeyance until the Secretary of Energy issues a final decision on whether or not to restart FFTF.

MILESTONE EXCEPTION REPORT

<u>Number/WBS</u>	<u>Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
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OVERDUE – 2 (FY 1998)

B19-98-401	FO	Complete Reactor and Heat Transport	4/30/98	In
2.1.1.1.21		System Sodium Drain (M-81-04-T01)		Abeyance

Cause: As a consequence of FFTF being placed in standby, facility transition work has been limited to activities that would not inhibit reactor restart and TPA work schedules are no longer achievable or appropriate.

Impact: No programmatic impact.

Corrective Action: Tri-Party Agreement Change Request M-81-98-01 approved 8/24/99 and FDH Change Request FFTF-00-01 approved 12/2/99 places M-81-00 series milestones and target dates in abeyance until the Secretary of Energy issues a final decision on whether or not to restart FFTF.

B17-98-107	FO	Submit Sodium Disposition Evaluation	6/30/98	In
2.1.1.1.21		Report/Decision Point (M-81-02-T01)		Abeyance

Cause: As a consequence of FFTF being placed in standby, facility transition work has been limited to activities that would not inhibit reactor restart and TPA work schedules are no longer achievable or appropriate.

Impact: No programmatic impact.

Corrective Action: Tri-Party Agreement Change Request M-81-98-01 approved 8/24/99 and FDH Change Request FFTF-00-01 approved 12/2/99 places M-81-00 series milestones and target dates in abeyance until the Secretary of Energy issues a final decision on whether or not to restart FFTF.

SECTION M

EM - 50

EM - 50 MILESTONE ACHIEVEMENT

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	0	0	0	0	0	0	0	0
DOE-HQ	0	0	0	0	0	13	4	17
FO	2	1	0	2	0	54	3	62
RL	0	0	0	0	0	0	0	0
Total Project	2	1	0	2	0	67	7	79

Total Project

FO

EM-50 Exceptions

<u>Number</u>	<u>Level</u>	<u>Milestone Title</u>	<u>BASELINE</u> <u>Date</u>	<u>FORECAST</u> <u>Date</u>
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OVERDUE – 2

009DD61/3 2.1.1 (AMT)	FO	Award Contract for Robotic Work Platform	10/15/99	1/31/00
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Cause: RFP was sent out to all potential vendors. Review of submittals has delayed issuance of the contract.

Impact: None

Corrective Action: The contract will be awarded in January 2000.

49MW21/C-2 2.1.1 (AMT)	FO	Produce Report Mapping the Matrix Space in Hanford Waste Boxes	11/15/99	Cancelled
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Cause: Activities at WRAP were focused on preparing shipments to WIPP.

Impact: None

Corrective Action: Funding for this TTP was returned to the Mixed Waste Focus Area. This task is cancelled.

FORECAST DELAY – 7

030C211/A01 3.5.6 (AMT)	HQ	Complete Comprehensive Report on Instrument Development	9/30/00	12/31/00
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Cause: This milestone has been delayed because prerequisite decision requirements for the separation process have not yet been made, and are not expected until the middle of January 2000.

Impact: None

Corrective Action: A revised TTP will be generated after replanning is completed.

030C211/A11 3.5.6 (AMT)	HQ	Complete Demonstration of Gamma Spectrometer	8/31/00	9/30/00
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Cause: This milestone has been delayed because prerequisite decision requirements for the separation process have not yet been made, and are not expected until the middle of January 2000.

Impact: None

Corrective Action: A revised TTP will be generated after replanning is completed.

Environmental Management Performance Report – November 1999
Section M – EM - 50

030C211/A21 HQ Complete Demonstration of Neutron Counting System 4/30/00 9/30/00
3.5.6 (AMT)

Cause: This milestone has been delayed because prerequisite decision requirements for the separation process have not yet been made, and are not expected until the middle of January 2000.

Impact: None

Corrective Action: A revised TTP will be generated after replanning is completed.

08WT22/C-1 HQ Complete Design and Issue Outline Design 3/10/00 9/26/00
2.1.1 (AMT) Review Report of Sampler

Cause: Because of the incorporation of additional proof-of-principle and alternative sample bottle filling testing results, the outline design is extended. The new date, if the mobile sampling system concept is incorporated into the baseline, will be September, 2000, to complete the review of the Outline Design. Also, co-funding issues must be resolved to establish user participation and completion of this project.

Impact: None

Corrective Action: A revised TTP will be submitted after all issues are resolved.

08WT22/F-1 FO Issue Preliminary Hazards Assessment 5/19/00 11/30/00
2.1.1 (AMT) of Sample Retrieval System

Cause: This assessment activity will use the results of the testing and the outline design, as well as the CMST/FETC-supported At-Tank Analysis work. The new date, if the mobile sampling system concept is incorporated into the baseline, will be November 30, 2000.

Impact: None

Corrective Action: A revised TTP will be submitted after all issues are resolved.

036WT51/A14 FO Complete Test of 50-HP Flygt Mixer and 1/30/00 3/31/00
3.5.4 (AMT) Issue Phase D Test Report

Cause: During November, a preliminary test of the Flygt Mixer was conducted to check out the test system & the DAS. A propeller blade failed during a water operation on Nov 17, 1999 & will be replaced mid-January. Due to this delay, the mixer run-in test cannot be completed on schedule.

Impact: None

Corrective Action: A change request will be submitted to delay this milestone completion date.

037WT31/B32 FO Issue Next "Phase" Test Matrix for 1/30/00 3/30/00
3.5.4 (AMT) INEEL CVS Study

Cause: Task will begin once projected waste compositions are available from INEEL. This input was scheduled by the end of November and hasn't yet been delivered. The status was discussed in a meeting with the end-users, the TFA TIM and co-investigators. The current scheduled completion date of 3/3/00.

Impact: None

Corrective Action: This milestone will be completed by March 30, 2000.

FY 1999 OVERDUE – 3

08WT21/C1 HQ Document Deployment of the Corrosion 9/30/99 1/10/00
2.1.1 (AMT) Probe

Cause: Tank Farm Operations priorities and work package review issues have delayed this task until January, 2000.

Impact: None

Corrective Action: The probe will be deployed in January, 2000.

08WT22/H-1 FO Issue Revised Deployment Strategy 8/30/99 2/28/00
2.1.1 (AMT) and Plan

Cause: The strategy of this task has been modified to include a mobile sampler system, which has caused the revision of this plan to be delayed.

Impact: None

Corrective Action: This plan will be issued by 2/28/00.

49MW21/A-2 FO Submit BWAS Characterization Plan 8/31/99 Cancelled
2.1.1 (AMT)

Cause: Activities at WRAP were focused on preparing shipments to WIPP.

Impact: None

Corrective Action: Funding for this TTP was returned to the Mixed Waste Focus Area. This task is cancelled.

GLOSSARY

Actual cost of work performed (ACWP): The actual cost incurred and applied or distributed for the work performed within a given time period. It includes all labor categories, material, any other direct costs, subcontract work, and function overhead.

Approved baseline: The budget authorized to perform the workscope that has been agreed upon by the customer and the contractor(s). It is portrayed in the Multi-Year Work Plan with all approved changes. This baseline may or may not be fully funded, and could be more or less than the compliance baseline.

Budget at completion (BAC): The sum of budgets established to complete a program and/or project or any component of a program and/or project.

Budgeted cost of work performed (BCWP): The value for completed work measured in terms of the planned budget for that work. It is synonymous with earned value.

Budgeted cost of work scheduled (BCWS): The time-phased budgeted value of work scheduled to be accomplished over a given time period. The BCWS for a total cost account through its entire period of performance is equal to the BAC for the cost account.

Carryover Workslope: The estimated dollar amount of the workslope that was not completed during the fiscal year and which will be carried over and completed in the next fiscal year.

Compliance baseline: The budget that is required to perform the workslope necessary to be in compliance with State and Federal regulations, enforceable agreement milestones, and DNFSB milestones. The level of activity required to be in compliance assumes sufficient funding. **Note:** Because approved baselines are considered to be compliant, this column will likely be eliminated.

Contract Inherited: The assumed budget for the planned scope of work at the time a new contract is signed by the company responsible for performing the work.

Cost variance (CV): The difference between BCWP and ACWP ($CV = BCWP - ACWP$). At any time, it shows whether the work actually performed has cost more or less than the amount budgeted for the same work.

Cost Performance Indicator (CPI): The CPI is the ratio of BCWP to ACWP, or $(BCWP/ACWP)$.

Earned value (EV): The periodic, consistent, and objective measurement of work performed in terms of the budget planned for that work. The EV is synonymous with the BCWP and it is compared to the BCWS to obtain schedule performance and to the ACWP to obtain cost performance.

GLOSSARY (CONTINUED)

Estimate at completion (EAC): Cost allocated to the work breakdown structure element to date, plus the estimate of costs for authorized work remaining. Authorized work remaining includes any undistributed budget.

Fiscal Year Spending Forecast (FYSF): The estimated total that will be spent from October through September (current Fiscal Year).

Funding carryover and new Budget Authorization (BA): This funding represents both the funding allocated to perform workscope planned in the prior fiscal year, not completed, and approved to be performed in the current fiscal year, as well as new BA to perform the approved baseline workscope.

Funding target: The level of funding that is anticipated (as a result of the Integrated Priority List process) in a given Fiscal Year based on an assumed funding level for the Site.

Multi-Year Work Plan – 10/1/XX: The Project's approved cost/schedule/technical baseline at the beginning of the fiscal year.

Progress Tracking System (PTS) – The standard reporting tool for the Office of Assistant Secretary for Environmental Management (EM). This system tracks program activities, accomplishments, and resources on a monthly basis to consistently measure program progress.

Schedule Performance Indicator (SPI): The SPI is the ratio of BCWP to BCWS, or (BCWP/BCWS).

Schedule variance (SV): The difference between BCWP and BCWS ($SV = BCWP - BCWS$). At any time, or for a given period of time, it represents the difference between the planned dollar value of work actually accomplished and the value of the work scheduled to be accomplished.

Work breakdown structure (WBS): A product-oriented family tree division of real estate, hardware, software, services, and data products that organize, define, and display all of the work to be performed in accomplishing the program and/or project objectives.