



# 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.

NOTE: Unless otherwise noted, the Safety, Conduct of Operations, Milestone Achievement, and Cost/Schedule data contained herein is as of May 31, 2000. Other information is updated as noted.

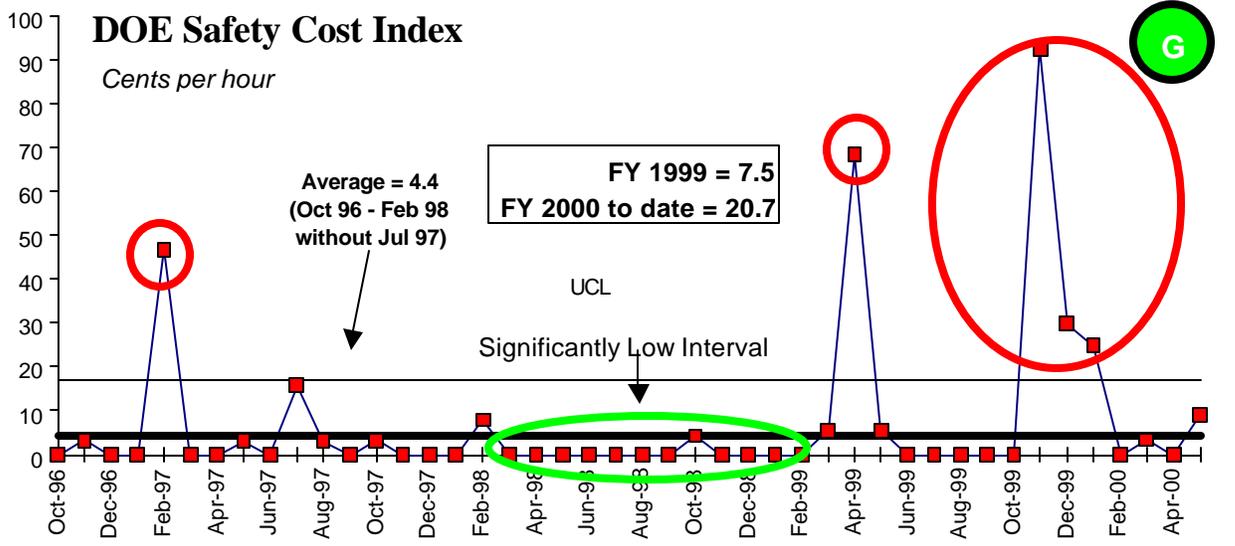
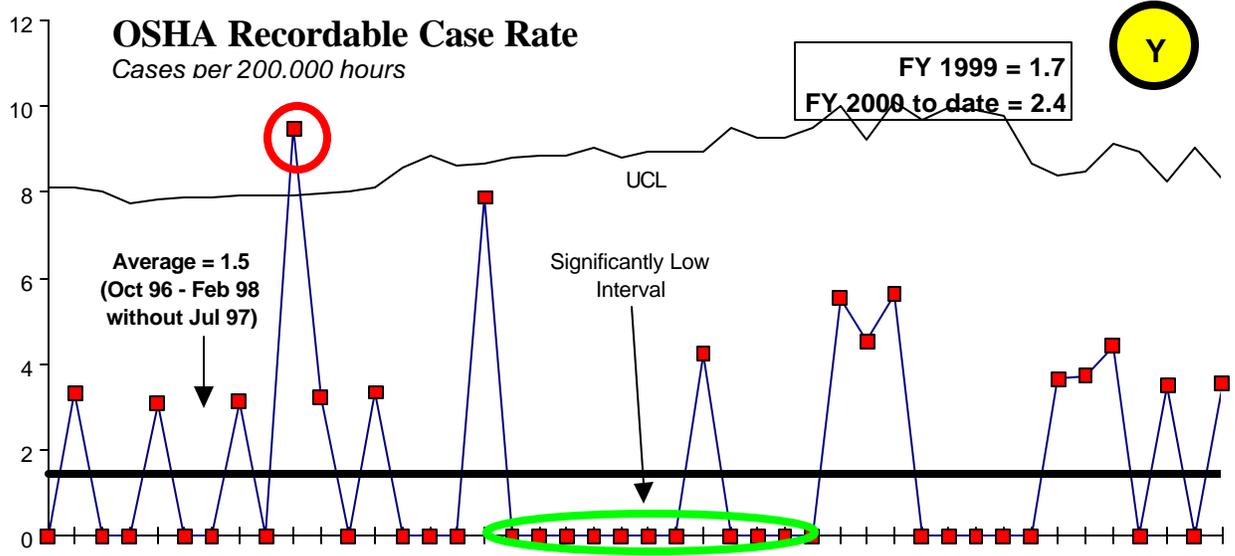
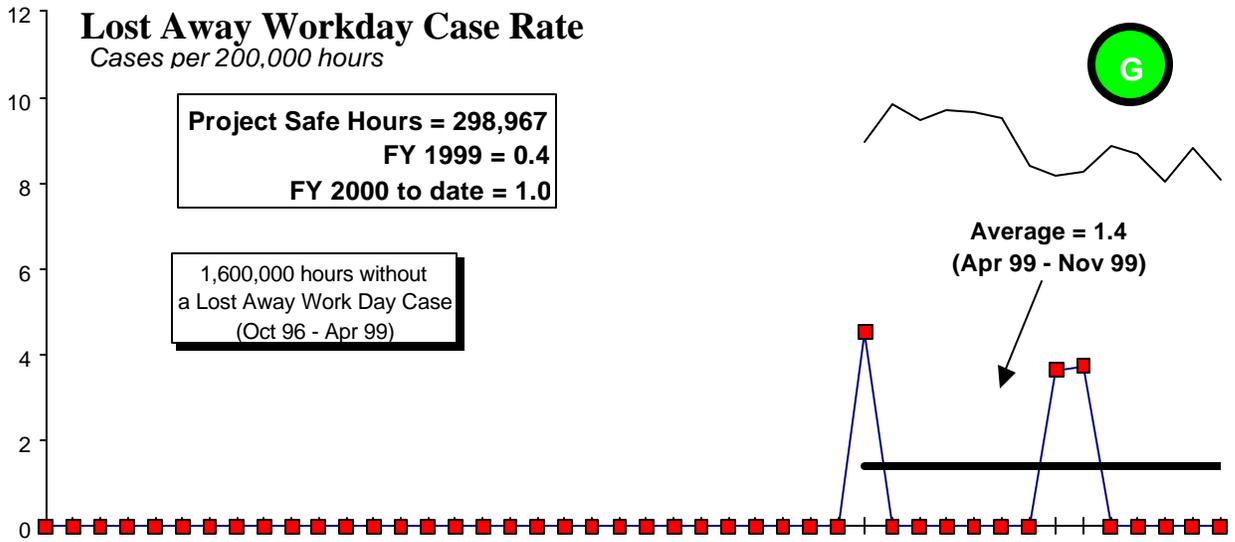
Fiscal-year-to-date-milestone performance (EA, DOE-HQ and RL) shows no milestones are due this reporting period.

## **ACCOMPLISHMENTS**

- A total of 8.0 Analytical Equivalent Unit (AEUs) processed at the 222-S Laboratory through May 2000 (FYTD) versus the planned 8.1 AEUs in support of the RPP (TWRS) tank characterization program. Production through June 16 is 8.8 AEUs. On track to meet the 11 AEU commitment. Completed analysis and reporting for characterization of high-level waste in AZ-102, and compatibility analysis on tanks U-106 and SY-102.
- Supported completion of the 242A Evaporator campaign that was completed on May 2, seven days ahead of schedule. Performed 11,600 analyses (FYTD) through May 2000 at Waste Sampling and Characterization Facility (WSCF) for a wide variety of customers as planned. Production through June 12, 2000 is 12,100 analyses. Completed headspace gas sampling and analysis on 85 drums for Waste Isolation Pilot Plant (WIPP).
- Received results on the DOE Mixed Analyte Performance Evaluation Program (MAPEP). All programs (trace metals, semi-Volatile Organic Analysis (VOA), and radiochemistry) had acceptable results. No formal corrective actions are required by WSCF.
- Environmental Management Consolidated Audit Program (EMCAP) and Integrated Contractor Purchasing Team (ICPT) Audits of RECRA Laboratories in Lionville, Pennsylvania were conducted on May 16-18 and May 23-25, 2000. The purpose of these audits is to determine the RECRA Laboratories' compliance to Hanford Analytical Services Quality Requirements Document (HASQARD) and other applicable requirements for performing analytical services on Hanford samples. Findings are being addressed by RECRA and the laboratory continues to be utilized.

## **SAFETY**

In May, there were no Occupational Safety and Health Act (OSHA) recordable cases, one lost/restricted days and four first aid cases. The project continues to focus on safety and personal and team accountability; however, there is a significant increase in the Lost/Restricted Workday Case Rate for Nov 99 - Jan 00, and a significant increase in First Aid Cases over the past eight months. OSHA recordable is stable at a rate higher than the 1.0 corporate goal. A safety council sponsored, employee-lead task team is working to develop near-term and long-term improvements in the ergonomics of handling small casks (called T-handled carriers). Ergonomics training was completed by HEHF at the 222-S Laboratory in May 2000 and additional ergonomics sessions are planned to be made available to all Analytical Services staff. Ergonomic self-assessments are planned for all Analytical Services staff for June and July 2000. Ergonomics have been a source of injuries that need to be prevented.

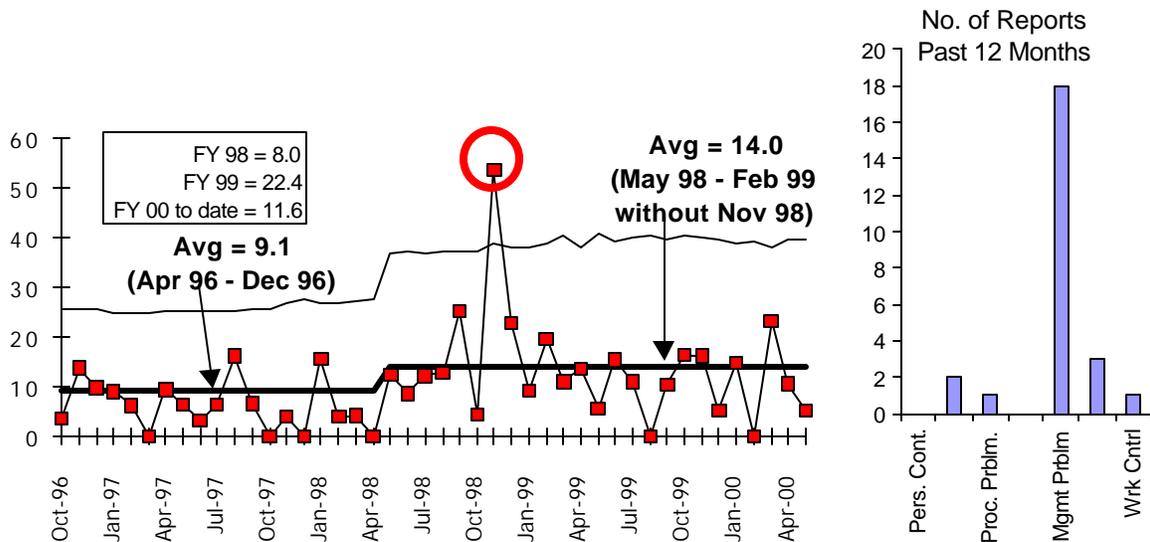


## CONDUCT OF OPERATIONS / ISMS STATUS

### CONDUCT OF OPERATIONS

EVENTS PER 200,000 HOURS

Green



### ISMS STATUS

Green

Analytical Services ISMS status is included in the Waste Management Project Section of this report. Overall, on track for the June 2000 Phase II verification. Prepare Projects for, and support DOE Phase II efforts.

### BREAKTHROUGHS

Nothing to report.

### OPPORTUNITIES FOR IMPROVEMENT

British Nuclear Fuel Limited, Inc. (BNFL) and Bechtel National, Inc. have begun (May 2000) providing laboratory analytical requirements and turnaround time needs to determine whether support from 222-S/WSCF would enable a significant downsizing of the process support laboratory planned for the vitrification plant. A white paper was funded by CH2M Hill Group (CHG) to estimate cost reduction opportunities through the use of 222-S and WSCF resources.

### UPCOMING ACTIVITIES

**WIPP Certification and Waste Shipments** — Continue to support the production goal of headspace analysis of 253 drums (equivalent) for shipment to WIPP.

**ORP Readiness to Proceed**— It has been determined that Analytical Services is prepared to support the readiness to proceed decision for the BNFL/Bechtel National, Inc. contract. Key follow-up actions are:

- Formal specification of requirements from Occurrence Reporting Program (ORP) to RL and then to FH
- Stable funding of needed equipment and facility repair in Multi-Year Work Plans (RL and ORP)
- Funding replacement of obsolete laboratory support systems (Information Management)
- Funding of staff to maintain core competency.

### **COST PERFORMANCE (\$M):**

	<b>BCWP</b>	<b>ACWP</b>	<b>VARIANCE</b>
<b>Analytical Services</b>	\$18.0	\$19.1	- \$1.1

The \$1.1 million (6 percent) unfavorable cost variance is due to increased cost for 222-S Laboratory polychlorinated biphenyl (PCB) recovery and increased resources required to support compliance issues.

### **SCHEDULE PERFORMANCE (\$M):**

	<b>BCWP</b>	<b>BCWS</b>	<b>VARIANCE</b>
<b>Analytical Services</b>	\$18.0	\$18.3	- \$0.3

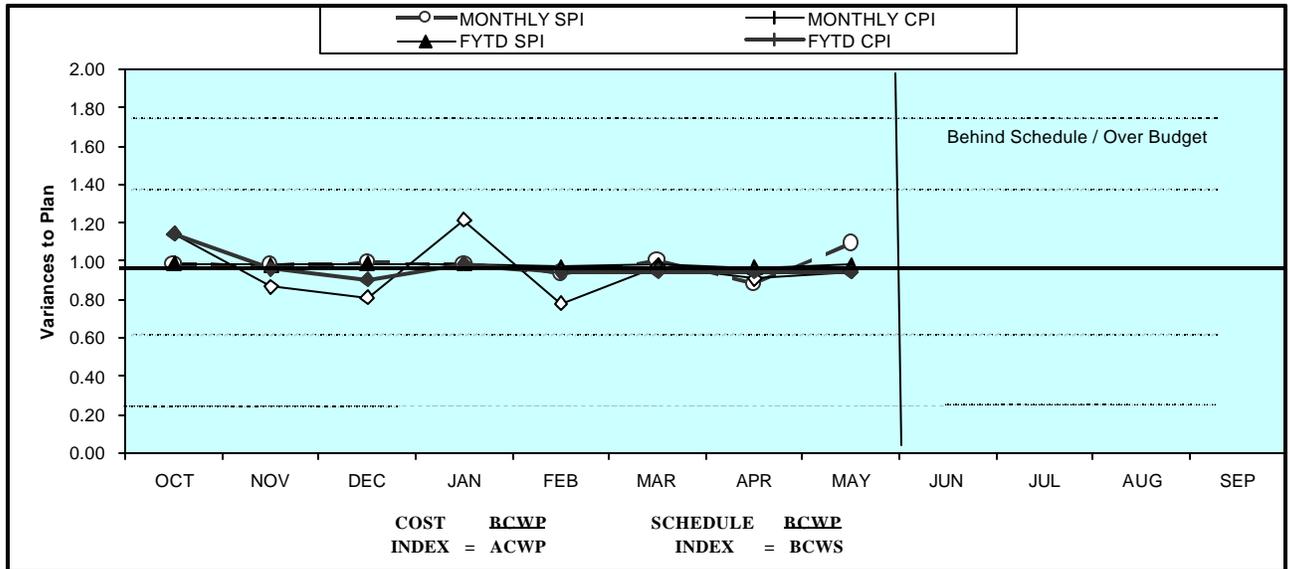
The \$0.3 million (2 percent) unfavorable schedule variance is within the established threshold.

### **FY 2000 COST/SCHEDULE PERFORMANCE – ALL FUND TYPES CUMULATIVE TO DATE STATUS – (\$000)**

	<b>FYTD</b>									
	<b>BCWS</b>	<b>BCWP</b>	<b>ACWP</b>	<b>SV</b>	<b>%</b>	<b>CV</b>	<b>%</b>	<b>PEM</b>	<b>FYSF</b>	<b>EAC</b>
By PBS WBS 1.2.4 Analytical PBSW06 Services	\$ 18,330	\$ 18,009	\$ 19,134	\$ (321)	-2%	\$ (1,125)	-6%	\$ 27,101	\$ 27,594	\$ 27,992
<b>Total</b>	\$ 18,330	\$ 18,009	\$ 19,134	\$ (321)	-2%	\$ (1,125)	-6%	\$ 27,101	\$ 27,594	\$ 27,992

\*Note: RL-Directed costs (steam and laundry) are included in the PEM BCWS. The current spending forecast indicates an overrun of \$0.9M due to the unforeseen significant extra costs for Polychlorinated biphenyl (PCB) management. A BCR has been approved to address incremental scope for PCB recovery that will significantly reduce the unfavorable cost variance.

## COST/SCHEDULE PERFORMANCE INDICES (MONTHLY AND FYTD)



FY 2000	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MONTHLY SPI	0.99	0.98	0.99	0.98	0.94	1.00	0.88	1.09				
MONTHLY CPI	1.14	0.87	0.81	1.22	0.78	0.98	0.91	0.94				
FYTD SPI	0.99	0.98	0.99	0.98	0.97	0.98	0.97	0.98				
FYTD CPI	1.14	0.96	0.91	0.99	0.94	0.95	0.94	0.94				
MONTHLY BCWS	\$1,588	\$2,340	\$1,973	\$2,896	\$2,283	\$2,613	\$2,279	\$2,358	\$1,927	\$1,893	\$2,507	\$2,444
MONTHLY BCWP	\$1,566	\$2,288	\$1,960	\$2,848	\$2,135	\$2,624	\$2,010	\$2,578				
MONTHLY ACWP	\$1,369	\$2,640	\$2,414	\$2,342	\$2,741	\$2,686	\$2,208	\$2,733				
FYTD BCWS	\$1,588	\$3,928	\$5,901	\$8,797	\$11,080	\$13,693	\$15,973	\$18,330	\$20,257	\$22,150	\$24,657	\$27,101
FYTD BCWP	\$1,566	\$3,854	\$5,814	\$8,662	\$10,797	\$13,421	\$15,431	\$18,009				
FYTD ACWP	\$1,369	\$4,009	\$6,423	\$8,765	\$11,506	\$14,193	\$16,401	\$19,134				

### COST VARIANCE ANALYSIS: (- \$1.1M)

**WBS/PBS**

**Title**

**1.2.4/WM06 Analytical Services**

**Description/Cause:** The unfavorable cost variance of \$1.1 million (6.3 percent) is due to increased costs for 222-S Tank 104 poly-chlorinated biphenyl recovery activities; increased resources in support of compliance issues, ISM implementation, corrective action management, and chemical technologist training development.

**Impact:** Current yearend spending projections indicate a \$0.9M overrun.

**Corrective Action:** Corrective actions have been identified and implemented to control spending, including the processing of a change request to address the incremental PCB recovery scope.

## SCHEDULE VARIANCE ANALYSIS: (- \$0.3M)

**WBS/PBS**

**Title**

1.2.4/WM06

Analytical Services

**Description /Cause:** The unfavorable schedule variance of \$0.3M (2 percent) is within established threshold.

**Impact:** None.

**Corrective Action:** None required.

### ISSUES

#### Technical Issues

None.

#### DOE/Regulator/External Issues

**PCB Management** — ORP is establishing a new PCB management approach. Impacts to 222-S and WSCF could be significant and very costly, depending on the final approach taken by ORP. DOE-RL plans to seek funding from ORP to assess impacts and implementation costs of ORP changes in regulation approach. Provided input and supported a FH team to respond to the ORP negotiations being held with EPA on the PCB status of the tank farms.

**222-S RCRA Part B Application** — DOE-RL received letter notification from Ecology granting a delay in submittal of the 222-S Laboratory Part B RCRA Application until August 31, 2000. This delay is shorter than requested, AS will present the new technical challenges (i.e., TSCA in the DST system). Analytical Services requested a three-month delay to allow for continued good progress for resolving issues and should result in permit conditions that can be implemented.

### BASELINE CHANGE REQUESTS CURRENTLY IN PROCESS (\$000)

PROJECT CHANGE NUMBER	DATE ORIGIN	BCR TITLE	FY00 COST IMPACT \$000	SCH	TECH	DATE TO CCB	CCB APP'VD	RI APP'VD	CURRENT STATUS
WM-2000-002	1/3/00	Waste Management FY 2000 Mandated Funds Reduction	-\$879			02/17/00			Approved by RL 5/15/2000
ADVANCE WORK AUTHORIZATIONS									
		Nothing to report at this time.							

## 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
EO	0	0	0	0	0	0	0	0
RI	0	0	0	0	0	1	0	1
<b>Total Project</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>

<b>Tri-Party Agreement / EA Milestones</b>
Nothing to report.
<b>DNFSB Commitments</b>
Nothing to report.

## MILESTONE EXCEPTION REPORT

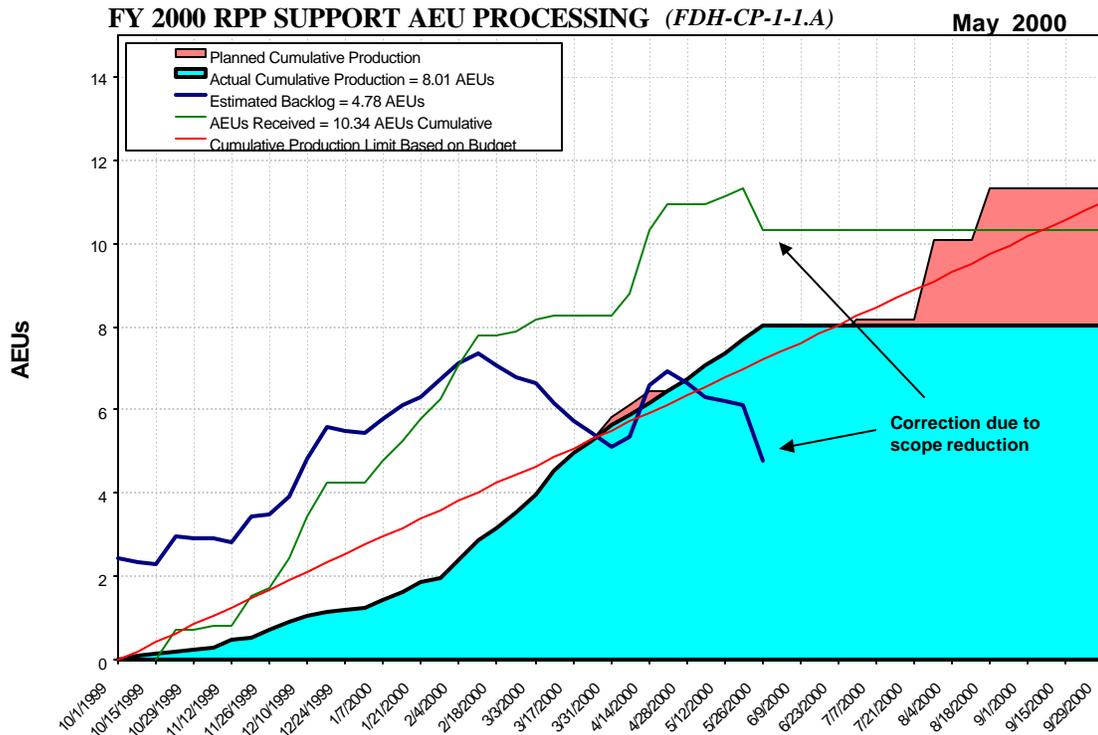
<u>Number/WBS</u>	<u>Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
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**OVERDUE – 0**

**FORECAST LATE – 0**

## PERFORMANCE OBJECTIVES

Green



Continue working with RPP on 222-S laboratory production integration. Will meet the September 2000 commitment of eleven AEUs. Production through May 2000 is 8.0 AEUs, versus a planned 8.1 AEUs. Production through June 16, 2000 is 8.8 AEUs.

## KEY INTEGRATION ACTIVITIES

- Continue to support BNFL/Bechtel efforts to establish required analytical support for glassification operations.
  - In the longer term, BNFL/Bechtel National, Inc. could utilize unused space at WSCF for cold run test support and process laboratory analytical equipment testing.
  - The 222-S laboratory, with some refurbishment, might become a low cost option to a new large-scale laboratory associated with the glassification facility.
  - A white paper is being prepared for RPP to address the potential support that 222-S and WSCF could provide to the glassification facility.