



Section B:2

Analytical Services (222-S, HASP, WSCF)

PROJECT MANAGERS

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SUMMARY

The Analytical Services (AS) Project [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 September 30, 2000. Other information is updated as noted.

Top 5 Accomplishments for FY 2000

Operations at the Waste Sampling and Characterization Facility (WSCF) exceeded 2500 days without a lost time injury in August 2000 (Progress).

The Project completed the FY 2000 milestone commitment of 11 Analytical Equivalency Unit (AEUs) in August, ahead of schedule. A total of 13.2 AEUs were completed in FY 2000 in support of the RPP (TWRS) tank characterization program. A total of nine core reports, fifteen grab sample reports, and four vapor reports were issued in FY 2000. (Momentum).

All analytical reports were completed in support of CH₂M Hill Hanford Group (CHG) Performance Incentives affected by laboratory support. Support to development of the CHG Waste Treatment Plant, including providing 147 laboratory procedures and design documentation (approximately 100 drawings) of the 222-S hot cells (Momentum).

Certification of the Hanford Transuranic (TRU) Program and waste shipments to the Waste Isolation Pilot Plant (WIPP) were supported with headspace analysis. Procedures, methods, equipment and training were significantly revised to meet the new WIPP permit from the State of New Mexico (Completion and Removal).

A total of 17,735 analyses were performed in FY 2000 at the Waste Sampling and Characterization Facility (WSCF) for a wide variety of customers as planned (Progress).

Additional FY 2000 Accomplishments

Momentum

The DOE-RL was assisted with the declaration of Readiness-to-Proceed in support of the ORP Waste Treatment Plant Contract.

The Hanford Analytical Services Program (HASP) developed an Instrument Capital Plan for the 222-S and WSCF laboratories, based on instrument age, utilization, efficiency, and sample forecasts. A national survey on instrument utilization rates was obtained and compared to the AS laboratories.

A Facility Evaluation Board (FEB) audit of the 222-S and WSCF laboratories was completed. The final FEB report was issued in February 2000 with improvements in nine of ten areas and an overall rating of "3".

Quoting from the Defense Nuclear Safety Board Site Rep Report: "The Site Rep observed the transfer of a neutron source to the 222-S Californium Activation Analysis Facility (CAAF). The new $^{23}\text{Ci Cf-252}$ source is extremely radioactive (1082 rem/hr fast neutron, 93 rem/hr gamma at 30 cm), and will be used for neutron activation of tank wastes. The neutron capsule was drawn out of a 4.5-ton transportation cask and moved through a transfer tube to an underground storage position in a dry well inside the CAAF irradiation tank. Movement was by manual crank on a continuous cable with a magnetic end effector. Several mockups and dry runs had been conducted prior to the evolution and worker involvement was significant. This planning resulted in a good pre-job brief and a smooth transfer."

Ecology inspected the 222-S Laboratory in August 2000 with the intent to closeout the 222-S Settlement Agreement. The agreement expired in June 2000 but states that Ecology will issue a letter vacating the fine. Ecology was satisfied that we had a system and could identify the controls necessary to adequately manage our waste. The State of Washington Pollution Control Hearing Board issued a letter closing the issue on August 24, 2000.

Analytical Services won awards for booth displays in two categories, "Most Interactive" and Kid's Favorite" at the Health and Safety Expo 2000.

Completion and Removal

The successful completion of the 242A Evaporator campaign, including expedited feed tank analysis for ORP was supported.

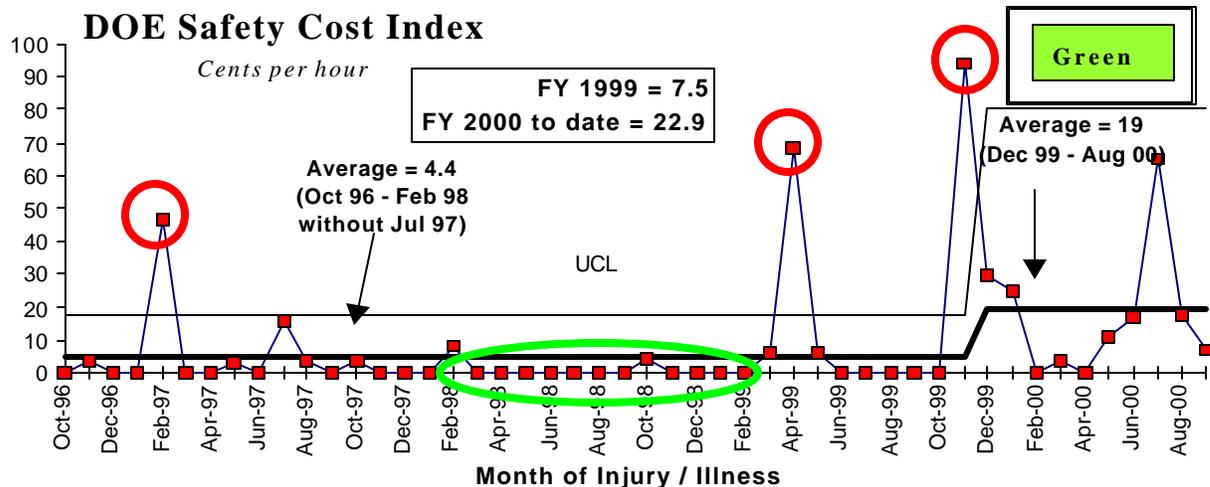
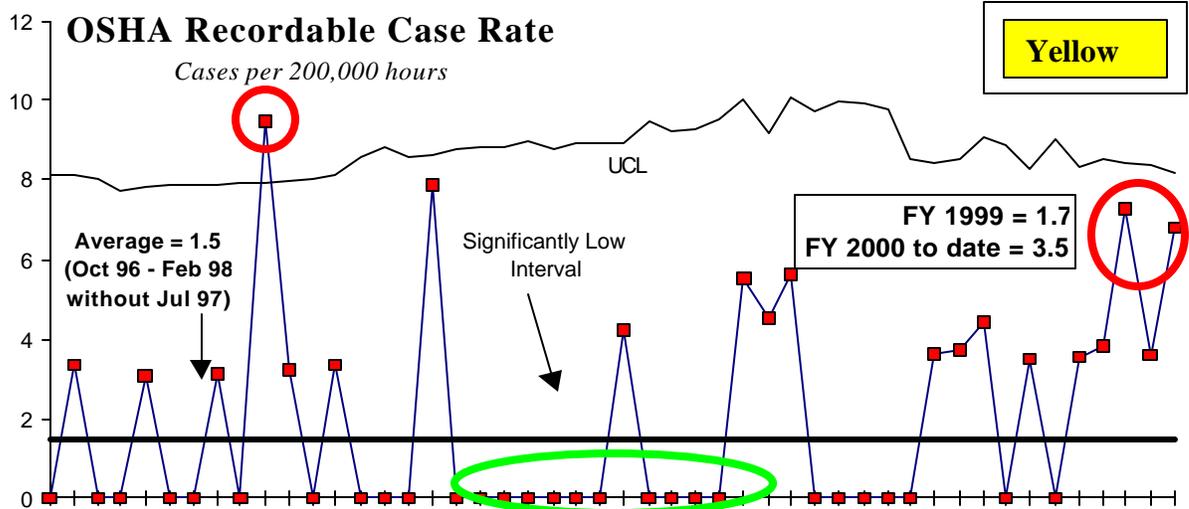
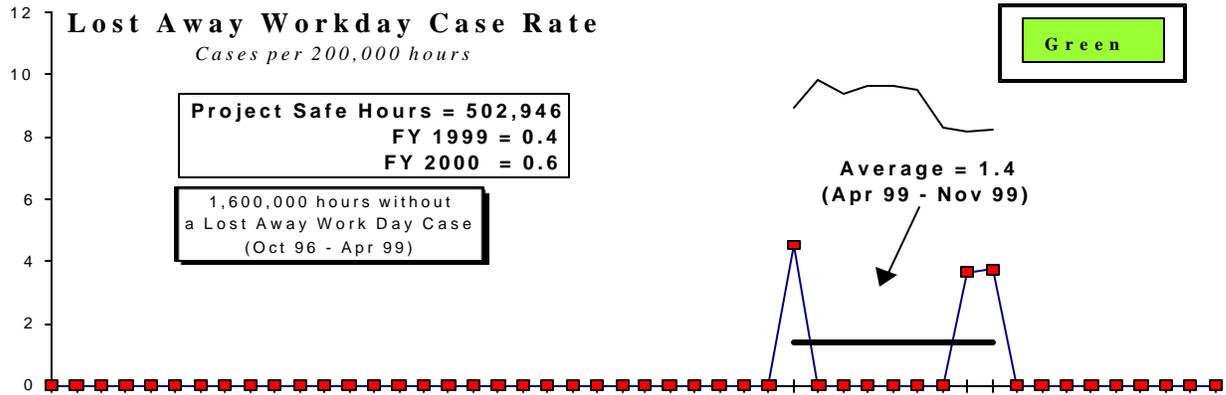
Fiscal-year-to-date-milestone performance (EA, DOE-HQ and RL) shows one milestone completed ahead of schedule.

ACCOMPLISHMENTS THIS REPORTING PERIOD

- Processed a total of 1.4 AEU's at the 222-S Laboratory in September in support of the RPP (TWRS) tank characterization program and issued eight characterization reports in support of RPP.
- Performed 1,128 analyses in September at WSCF for a wide variety of customers as planned. Through October 23, 2000, production for FY 2001 is 800 analyses.
- Hosted the executive director (Dr. Ghassemi) of the Waste Management Education and Research Consortium (WERC) on October 3-4, 2000. Opportunities to leverage WERC expertise and experience in environmental education, technology development and outreach were explored in meetings with RL, the contractors, and with universities and community colleges. RL is very pleased at the progress to date and supports continued efforts with WERC at Hanford.

SAFETY

In September, there were 2 OSHA recordable cases, no Restricted Workday Cases, and four First Aid Cases. The OSHA recordable case rate is increasing, with 2 of the past 3 months at two standard deviations above average, and the DOE Safety Cost Index has been rebaselined upwards due to recent increasing trends. Analytical Services continues to focus on ergonomic issues, and has brought HEHF expertise to 222-S to assist in ergonomic evaluations.



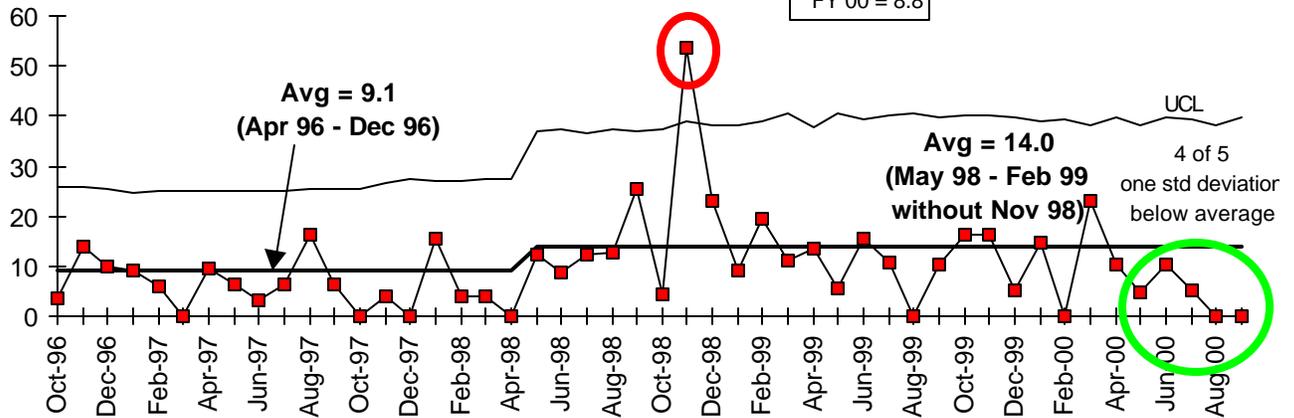
CONDUCT OF OPERATIONS / ISMS STATUS

Green

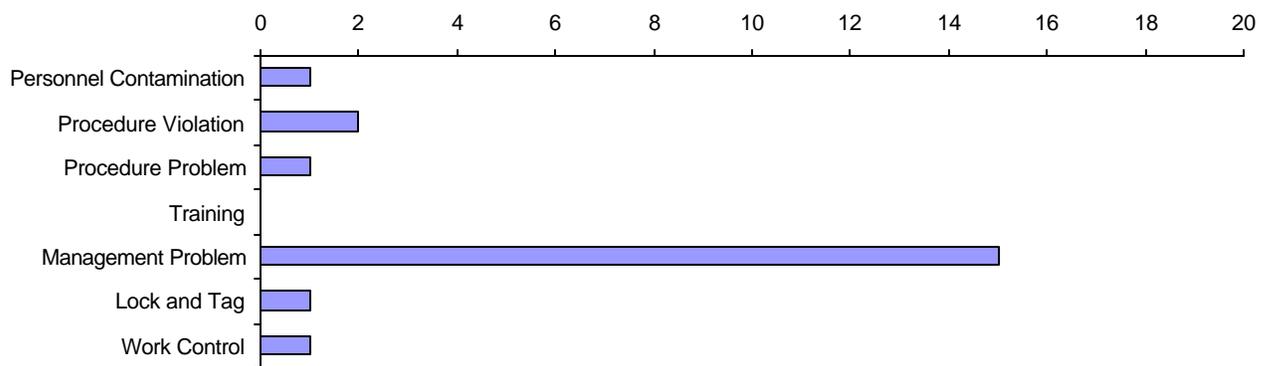
Conduct of Operations Index

Events per 200,000 Operations Hours

FY 98 = 8.0
 FY 99 = 23.7
 FY 00 = 8.8



Number of Reports Past 12 Months



ISMS STATUS

Green

Analytical Services ISMS status is included in the Waste Management Project Section of this report.

BREAKTHROUGHS

Nothing to report at this time.

OPPORTUNITIES FOR IMPROVEMENT

Green

Analytical Services Facility and Equipment Upgrades Team: RL is assessing the framework under which cleanup can be maximized while working to incorporate a “realistic” funding profile over the next ten to fifteen years. Consistent with the RL outcomes, the priority is achieving the River Corridor Outcome by 2010 or shortly thereafter. This approach necessitates a probable re-sequencing of the current baseline activities in the 200 Areas. An Analytical Services Facility and Equipment

Upgrades Team have identified required facility and equipment work scope to support the RL outcomes. Presentations were made to FH and RL to detail risks and impacts associated with the work scope to the Site cleanup mission. Related activities:

A long-term laboratory instrument capital plan, including analytical reliability requirements, was prepared in response to concerns over the lack of adequate funding in FY01 and future years for Capital equipment not related to construction (CENRTC), facility repair and Laboratory Information Management System (LIMS) upgrades. RPP recognizes the need and is indicating a willingness to fund a portion of the upgrades needed to provide for reliability of analytical services.

Analytical Services provided input to a DOE-HQ Infrastructure Restoration Plan to incorporate long-term Hanford laboratory needs.

UPCOMING ACTIVITIES

WIPP Waste Shipments — Continue to support the production goal of headspace analysis in support of waste shipments to WIPP.

ORP Waste Treatment Plant — A recommendation from the 200 Areas Option Study is to determine Analytical Services support requirements to the ORP Waste Treatment Plant. This includes technical support to the WTP design, cold testing and startup support, process control and monitoring, and troubleshooting. Options for long-term high-activity laboratory support to the Site cleanup mission (i.e. 222-S, WTP laboratory, a new laboratory, etc.) are also to be evaluated. These potential areas of support to the ORP WTP were compiled and submitted to RL.

222-S RCRA Part B Application — Issue Modification F (222-S) of the Hanford Facility (HF) RCRA Permit for public review after issuance of Modification E. Ecology is planning on issuing Modification E (WRAP and CWC) by the end of the calendar year. Prepare and deliver the remaining permit application items (Dangerous Waste Training Plan and the updated WIDS input) to Ecology, after issuance of Modification E.

PCB Management — Continue to work with RL and ORP on PCB management and regulatory issues.

Bioassay, Analytical, and Environmental Radiochemistry (BAER) Conference — Dr. Steven Bakhtiar of Analytical Services is chairing the 46th Annual BAER Conference in Seattle in mid-November 2000.

COST PERFORMANCE (\$M):

	BCWP	ACWP	VARIANCE
Analytical Services	\$27.6	\$26.5	\$1.1

The \$1.1 million (4 percent) favorable cost variance is within established thresholds.

SCHEDULE PERFORMANCE (\$M):

	BCWP	BCWS	VARIANCE
Analytical Services	\$27.6	\$28.3	- \$0.7

The \$0.7 million (2 percent) unfavorable schedule variance is within the established threshold.

FY 2000 COST/SCHEDULE PERFORMANCE – ALL FUND TYPES

CUMULATIVE TO DATE STATUS – (\$000)

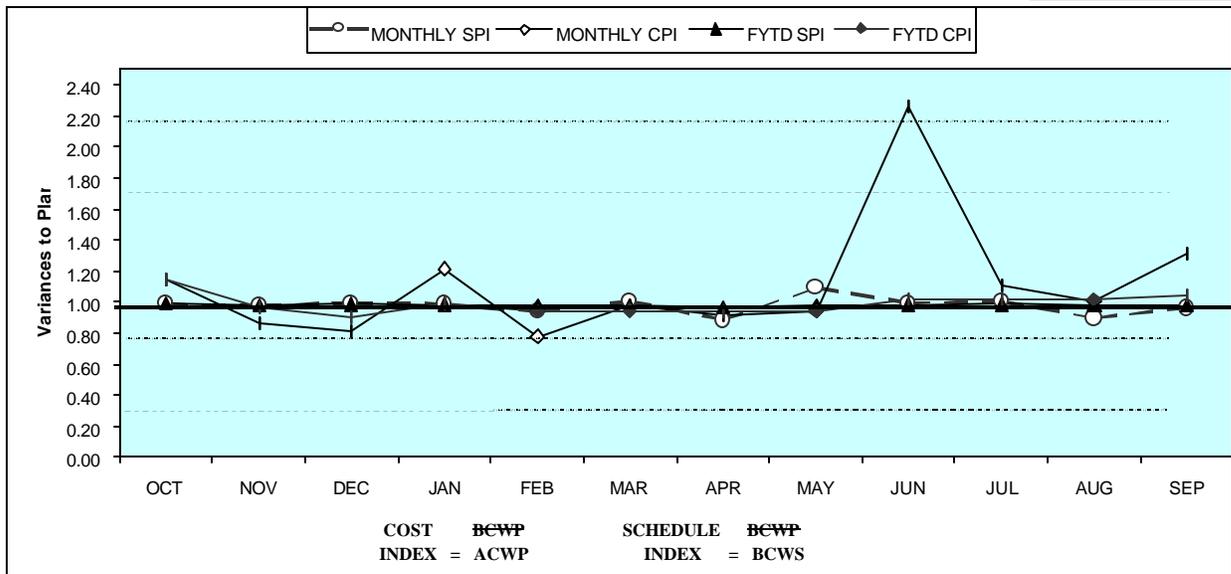
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		FYTD						
By PBS		BCWS	BCWP	ACWP	SV	%	CV	%
WBS 1.2.4	Analytical							
PBSWM06	Services	\$ 28,334	\$ 27,626	\$ 26,524	\$ (708)	-2%	\$ 1,101	4%
	Total	\$ 28,334	\$ 27,626	\$ 26,524	\$ (708)	-2%	\$ 1,101	4%

Note: RL-Directed costs (steam and laundry) are included in the PEM BCWS/ACWP/EAC.

COST/SCHEDULE PERFORMANCE INDICES (MONTHLY AND FYTD)

Green



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	0.99	1.01	0.90	0.96
MONTHLY CPI	1.14	0.87	0.81	1.22	0.78	0.98	0.91	0.94	2.26	1.11	1.00	1.31
FYTD SPI	0.99	0.98	0.99	0.98	0.97	0.98	0.97	0.98	0.98	0.99	0.98	0.98
FYTD CPI	1.14	0.96	0.91	0.99	0.94	0.95	0.94	0.94	1.01	1.02	1.02	1.04
MONTHLY BCWS	\$1,588	\$2,340	\$1,973	\$2,896	\$2,283	\$2,613	\$2,279	\$2,358	\$2,493	\$2,069	\$2,588	\$2,853
MONTHLY BCWP	\$1,566	\$2,288	\$1,960	\$2,848	\$2,135	\$2,624	\$2,010	\$2,578	\$2,473	\$2,086	\$2,320	\$2,737
MONTHLY ACWP	\$1,369	\$2,640	\$2,414	\$2,342	\$2,741	\$2,686	\$2,208	\$2,733	\$1,093	\$1,885	\$2,310	\$2,092
FYTD BCWS	\$1,588	\$3,928	\$5,901	\$8,797	\$11,080	\$13,693	\$15,973	\$18,330	\$20,823	\$22,892	\$25,481	\$28,334
FYTD BCWP	\$1,566	\$3,854	\$5,814	\$8,662	\$10,797	\$13,421	\$15,431	\$18,009	\$20,482	\$22,568	\$24,889	\$27,626
FYTD ACWP	\$1,369	\$4,009	\$6,423	\$8,765	\$11,506	\$14,193	\$16,401	\$19,134	\$20,228	\$22,113	\$24,432	\$26,524

COST VARIANCE ANALYSIS: (\$1.1M)

WBS/PBS

Title

1.2.4/WM06

Analytical Services

Description/Cause: The favorable cost variance of \$1.1 million (4 percent) is within established thresholds.

Impact: None.

Corrective Action: None required.

SCHEDULE VARIANCE ANALYSIS: (-\$0.7M)

WBS/PBS

Title

1.2.4/WM06

Analytical Services

Description/Cause: The unfavorable schedule variance of \$0.7M (2 percent) is within established threshold.

Impact: None.

Corrective Action: None required.

FUNDS MANAGEMENT
FUNDS VS SPENDING FORECAST (\$000)
FY TO DATE THROUGH SEPTEMBER 2000
(FLUOR HANFORD, INC. ONLY)

	Project Completion *			Post 2006 *			Line Items *		
	Funds	Actual Cost	Variance	Funds	Actual Cost	Variance	Funds	Actual Cost	Variance
The Plateau 1.2.4 Analytical Svcs (222-S,HASP,WSCF) WM06				\$ 26,457	\$ 25,779	\$ 678			
Line Item									
Total Analytical Serv. Operating				\$ 26,457	\$ 25,779	\$ 678			
Total Analytical Serv. Line Item									

* Control Point

ISSUES

Technical Issues

Nothing to report at this time.

DOE/Regulator/External Issues

Nothing to report at this time.

BASELINE CHANGE REQUESTS CURRENTLY IN PROCESS
(\$000)

PROJECT CHANGE NUMBER	DATE ORIGIN	BCR TITLE	FY00 COST IMPACT \$000	S C H	T E C H	DATE TO CCB	CCB APP'D	PL APP'D	CURRENT STATUS
FH-2001-001	9/12/00	Base Ops Reduction for PHMC Projects	-\$610		X				Draft Prepared
FH-2001-002	9/25/00	FY2001 Fee Reduction to 90%	-\$190						Draft Prepared
ADVANCE WORK AUTHORIZATIONS									
		Nothing to report at this time.							

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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
RL	1	0	0	0	0	0	0	1
Total Project	1	0	0	0	0	0	0	1

Tri-Party Agreement / EA Milestones

Nothing to report at this time.

DNFSB Commitments

Nothing to report at this time.

MILESTONE EXCEPTION REPORT

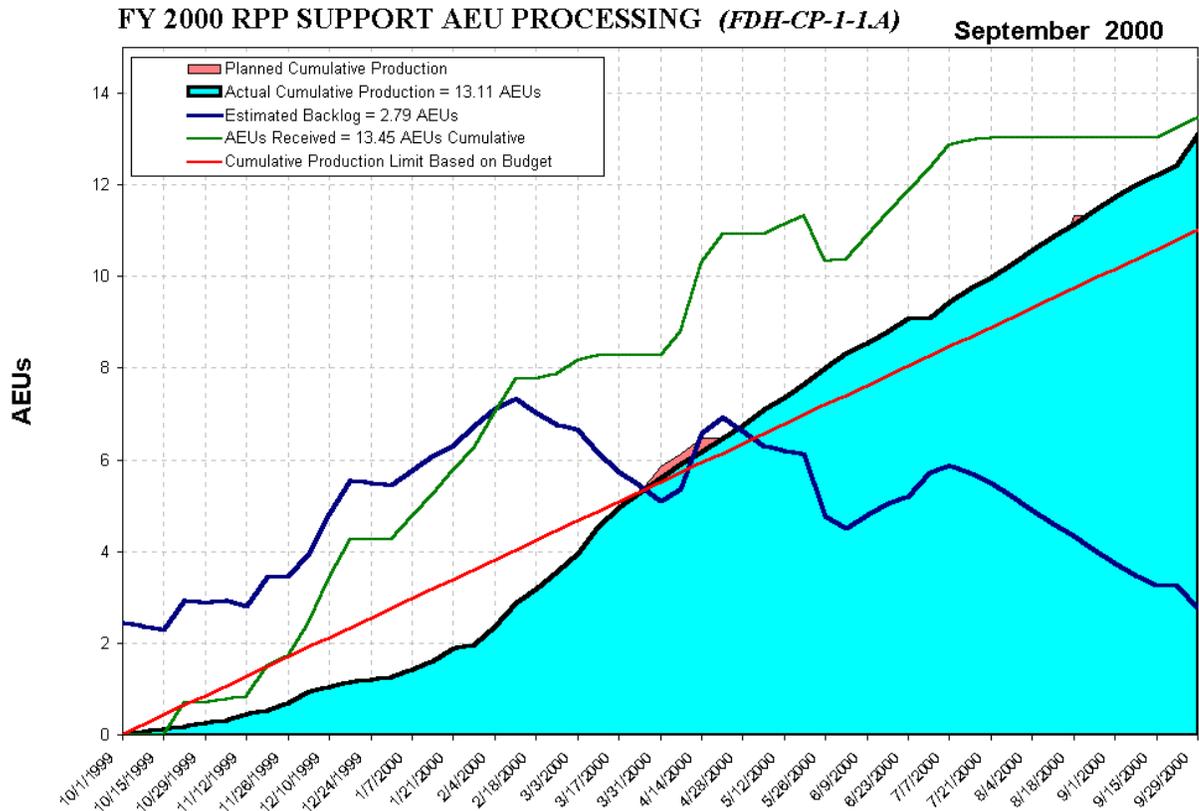
<u>Number/WBS</u>	<u>Level</u>	<u>Baseline</u>	<u>Forecast</u>
<u>Date</u>		<u>Milestone Title</u>	<u>Date</u>

OVERDUE – 0

FORECAST LATE – 0

PERFORMANCE OBJECTIVES

Green



Completed the FY 2000 milestone of 11 AEU on August 18, 2000, ahead of the September 30, 2000 date. Production through September 2000 is 13.1 AEU, versus a planned 10 AEU. Production for the month of September was 1.4 AEU.

KEY INTEGRATION ACTIVITIES

- Continue to support ORP efforts to establish required analytical support for Waste Treatment Plant (WTP) design and operation.
- Continue to support Waste Management headspace gas analyses for TRU waste shipment to WIPP.