

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.

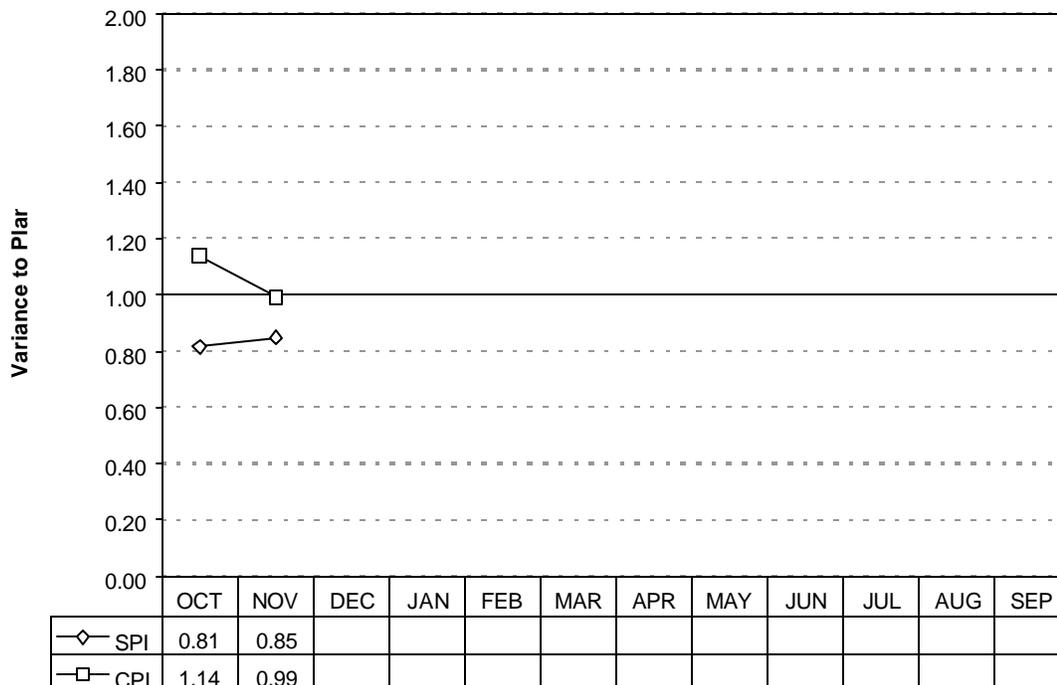
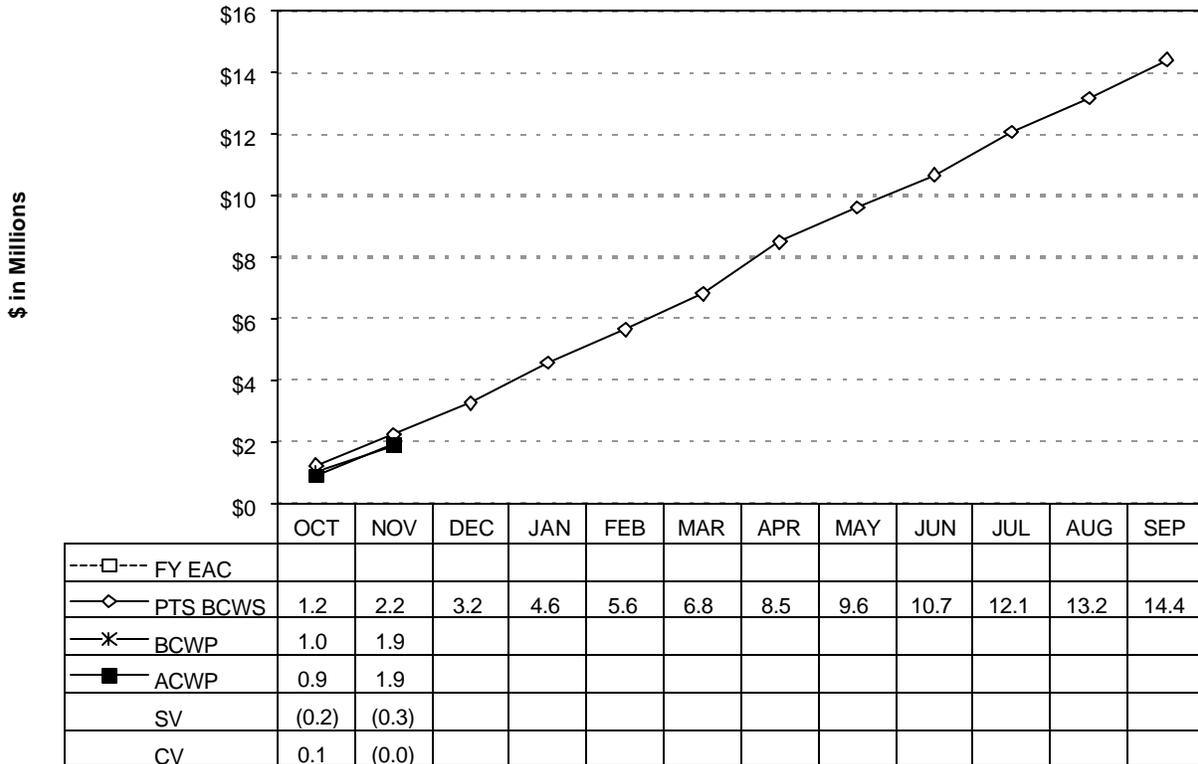
Strategy/Status: Effluent Management Project staff will prepare a change request to adjust the project scope and schedule once the AOP issue date becomes more certain.

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 Management	Expense	2.2	1.9	1.9	(0.3)	(0.0)	15.7	14.4
		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)	0.4	0.0
	Sub-Total ST01		2.2	1.9	1.9	(0.3)	(0.0)	16.1	14.4
ST02	Science & Technologies	Expense	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		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
	Sub-Total ST02		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total Science & Technology	Expense	2.2	1.9	1.9	(0.3)	(0.0)	15.7	14.4
		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)	0.4	0.0
	Total		2.2	1.9	1.9	(0.3)	(0.0)	16.1	14.4

\$ In Millions

COST VARIANCE ANALYSIS: (\$0.0M)

<u>WBS/PBS</u>	<u>TITLE</u>
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