

Pacific Northwest National Laboratory Environmental Management Performance Report

November 2001

**PREPARED FOR THE U.S. DEPARTMENT OF ENERGY, RICHLAND OPERATIONS OFFICE
OFFICE OF ENVIRONMENTAL MANAGEMENT**

**Pacific Northwest National Laboratory
Operated for the U.S. Department of Energy
by Battelle Memorial Institute**

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This document provides the Department of Energy Richland Operations Office (DOE-RL) with a report of the Pacific Northwest National Laboratory (PNNL) performance by Battelle Memorial Institute and its subcontractors.

In Section A, the Executive Summary, text and graphics report the safety metrics status for all PNNL activities. Senior management's overall performance assessment of all Environmental Management activities conducted at PNNL is presented in a stoplight chart.

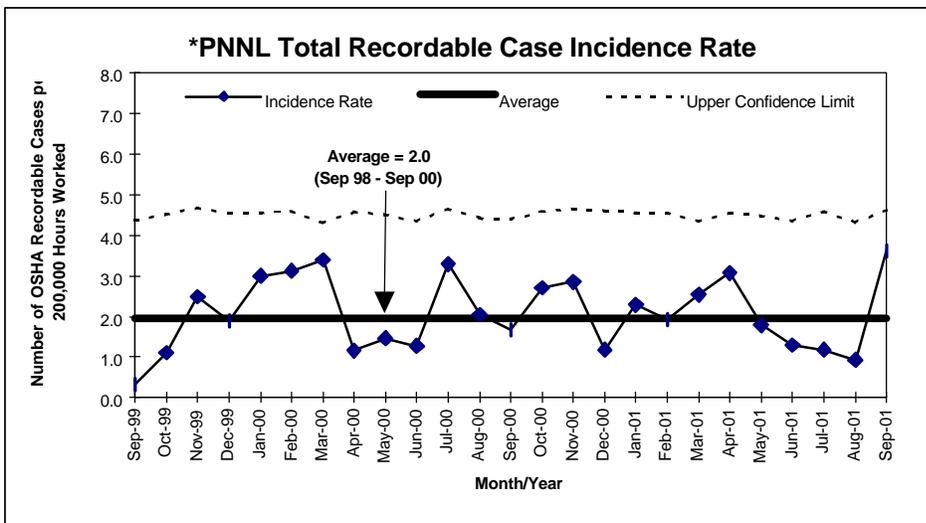
Section B, Project Performance Summary, provides a brief summary of the month's performance for the PNNL lead activity, PNNL Waste Management (PBS RL-ST01). More detailed information can be found within PNNL-7911-120a, PNNL's Project Status Report for September 2001. Summary analyses pertaining to PNNL's support to other Project Baseline Summaries (PBSs) are addressed in the contractor's report having lead responsibility for that scope.

Unless otherwise noted, information in this report is current as of September 30, 2001.

This section provides an executive-level summary of performance information and is intended to bring to management’s attention that information considered to be most noteworthy. The section begins with overview of safety, a summary of FY 2001 performance, followed by a spotlight chart on overall performance.

Safety Overview

The focus of this section is on documenting trends in work-related injury and illness rates. These are the same performance indicators as appear in the FY 2001 Battelle Performance Evaluation and Fee Agreement, which is part of the Pacific Northwest National Laboratory Operations Contract. The monthly rates for Recordable and Lost Workday cases are presented graphically in this section and are monitored for statistically significant changes. Current efforts to improve performance are being made through the continued implementation of the Integrated Safety Management System (ISMS), and the implementation and continuous improvement of the Voluntary Protection Program (VPP).



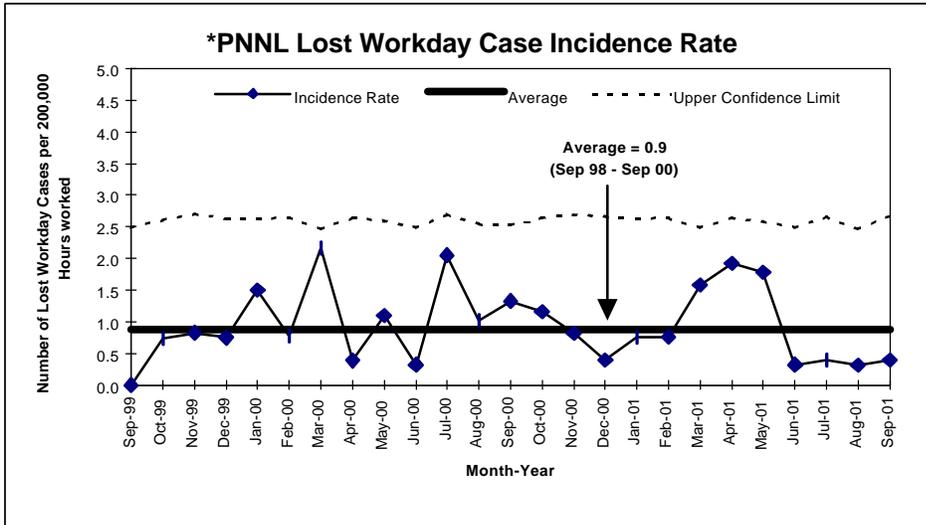
FY 01 Rate Overview:
 Cumulative To Date =2.1
 Lab Specified Level ≤ 2.2

This indicator has been generally stable over the long term. The data for FY 2001 continue to randomly fluctuate within the anticipated control limits. An increase in the rate for September 01 has been noted. The data are currently being monitored for a potential significant change and need for additional trend analysis.

Green

*Includes all Pacific Northwest National Laboratory Operations.

Green: Satisfactory Yellow: Significant improvement required Red: Unsatisfactory



FY 01Rate Overview:
 Cumulative To Date = 0.9
 Lab Specified Level ≤ 1.1

This indicator has been generally stable over the long term. The data for FY 2001 continue to randomly fluctuate within the anticipated control limits.

Green

*Includes all Pacific Northwest National Laboratory Operations.

Green: Satisfactory Yellow: Significant improvement required Red: Unsatisfactory

Cost/Schedule Performance Stoplight

The following rating reflects overall cost and schedule performance for activities conducted by PNNL. *(Narrative not required when rating is green.)*

Green

Green: Satisfactory Yellow: Significant improvement required Red: Unsatisfactory

This section provides cost and schedule performance, any significant issues, upcoming baseline change requests, if any, for the period covered, and quarterly status on baseline performance, outcomes, objectives, and measures. In FY 2001, Battelle Memorial Institute has lead responsibility over PBS RL-ST01, PNNL Waste Management WBS 1.7.1.

Mission

WBS 1.7.1 provides PNNL with waste management services and compliant operations in support of science and technology development for the multi-program needs of the U.S. Department of Energy (DOE) Complex. These services include:

- Essential surveillance and maintenance of DOE laboratory facilities assigned to PNNL for safe containment of radioactive and hazardous materials
- Infrastructure required to manage wastes and effluents currently generated at the PNNL
- Operational compliance services to meet regulatory requirements and operating permits including environment, safety, and health regulations
- Management of legacy wastes and contamination remaining from past PNNL research operations.

Activity Summary

The following summarizes the activities associated with PNNL Waste Management services and operations conducted during September 2001.

- Scheduled Radiochemical Processing Laboratory (RPL) radiological surveys and nuclear control inspections were performed. Inspections were completed for the 306-W Powder Lab facility. No issues were found. Support was provided for the transfer of an operating facility, 3718 A/B to Fluor. Tours were conducted, information transferred, and the building was accepted by Fluor on September 28. All radiological waste associated with the Cross Connect Project was disposed.
- Scheduled routine waste management activities were performed during the period. All air and water samples required during the month of September were collected, and confirmed that all routine effluent discharges from Pacific Northwest operations reported to date are below historical release levels and compliant with existing state and federal permits. The EMSL monthly Discharge Monitoring Report (DMR) for August was submitted directly to the City of Richland on September 7, 2001, thereby satisfying the August deliverable within milestone RLSTO12152. All measured parameters for wastewater discharged to the Richland Publicly Owned Treatment Works were within permit limits.
- One-hundred-thirty-six National Environmental Protection Act (NEPA) reviews were completed on experimental projects within the Laboratory to ensure that the associated project scope will not have potential to create environmental risks.
- Seven drums containing special case waste (SCW) were shipped to the CWC, significantly reducing the SCW inventory to be disposed per TPA milestone M-92. Over 27% of the

Legacy Waste lifecycle baseline items have been disposed of this fiscal year.

Performance Data and Analysis

As of September 30th, 2001, the cumulative costs are \$13.6M with a positive cost variance of \$0.7M and a cumulative schedule variance of negative (\$.2M.) The cost and schedule variances are within the 10% reporting threshold.

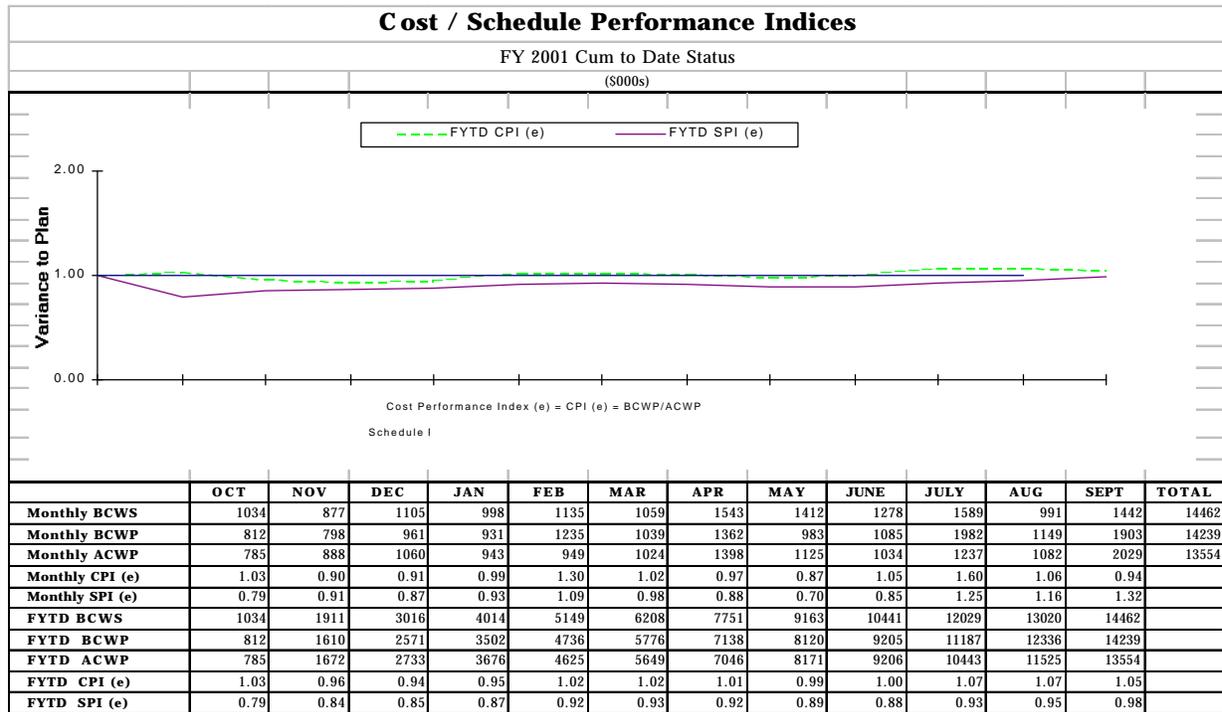
Cost Performance (\$M):			
	BCWP	ACWP	Variance
PNNL Waste Management	\$14.2	\$13.6	\$0.7

Schedule Performance (\$M):			
	BCWP	BCWS	Variance
PNNL Waste Management	\$14.2	\$14.5	(\$0.2)

FY 2001 Cost/Schedule Performance - All Fund Types Cumulative to Date Status - (\$000)

WBS	PBS	BCWS	BCWP	ACWP	CV	%	SV	%
1.7.1	RL-ST01	\$14,462	\$14,239	\$13,554*	\$684	5	(\$223)	-2
	Total	\$14,462	\$14,239	\$13,554*	\$684	5	(\$223)	-2

*Numbers reflect PNNL system; per DISCAS actuals, including \$ expended by Fluor for S&M of 242B/BL, are \$13,736.2K. PNNL has \$1,338.7K carryover, is expecting \$13,447.1K B/A in FY 2001 for a total of \$14,785.8K. Current new B/A authorization is \$13,419.7K



Baseline Performance Outcomes, Objectives, and Measures

The baseline performance outcomes, objectives, and measures for PNNL Waste Management addresses “what we are doing.” These measures are tied directly to the baseline and are maintained within baseline documentation. The information in the following table reflects the status against the measures through the fourth quarter of FY 2001.

<u>RL Objective</u>	<u>RL Multi-Year Performance Measure</u>	<u>Performance Measure</u>	Proposed FY 2001 EM Commitment : <u>Y/N</u>	TPA # <u>CMM#</u>	FY 2001 Performance <u>Expectation</u>
RL Outcome: Put DOE assets to work for the future					
Operational Excellence	Operate in a manner conducive to excellence and quality	Conduct routine operational activities to comply with statutory and regulatory requirements, specifically number of non-compliances (NOVs) related to environmental permit requirements.	No		<2
	Status:	There were no Notice of Violations issued to PNNL during the fourth quarter of FY-2001. This meets the FY2001 Performance Expectation.			
Operational Excellence	Operate in a manner conducive to excellence and quality	Maintain fiscal year end cost and schedule variances within established thresholds.	No		+/- 10%
	Status:	The WMOC Program cost variance for the fourth quarter is \$684K (5%) and the schedule variance is negative \$223K (-2%). This is well within the established ±10% performance threshold.			
Safety	Protect workers, the public and the environment	Initiate appropriate response to any unsafe condition identified during surveillance and self-assessments of EM facilities assigned to PNNL within 1 day of discovery (as shown to the right).	No		1
	Status:	To date surveillances have not identified any unsafe conditions in shutdown facilities. Only minor maintenance items have been noted, and they have been appropriately addressed with service requests. No unsafe conditions have been discovered in RPL that have resulted in an appropriate response initiation greater than one day. This meets the FY2001 Performance Expectation.			
Safety	Protect workers, the public and the environment	Quantity of HAZ waste (MT) shipped for storage or disposal.	No		81.000
	Status:	During the fourth quarter of FY 2001, 7.691 MT. of non-radioactive hazardous wastes were shipped for a total of 22.544 MT shipped for offsite treatment and disposal. Although this is lower than projected, 100% of newly generated non-radioactive hazardous waste was shipped.			
Safety	Protect workers, the public	Quantity of LLMW (m ³) shipped for storage or	No		22

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<u>RL Objective</u>	<u>RL Multi-Year Performance Measure</u> and the environment	<u>Performance Measure</u>	Proposed FY 2001 EM Commitment : Y/N	TPA # CMM#	FY 2001 Performance Expectation
	Status:	disposal. During the fourth quarter of FY 2001, .2 cubic meters of LLMW (Mixed Waste) were shipped for a total of 5.3 cubic meters for the fiscal year. Although this is lower than projected, 100% of newly generated LLMW waste was shipped.			
Safety	Protect workers, the public and the environment	Quantity of LLW (m ³) shipped for storage or disposal.	No		150
	Status:	During the fourth quarter of FY 2001, 8.6 cubic meters of LLW (Low Level Waste) was shipped for a total of 31.9 cubic meters for the fiscal year. Although this is lower than projected, 100% of newly generated LLW waste was shipped.			
Safety	Protect workers, the public and the environment	Quantity of TRU waste (m ³) shipped for storage or disposal.	No		6
	Status:	During the fourth quarter of FY 2001, 7.8 cubic meters of TRU (Transuranic waste) was shipped for a total of 12.6 cubic meters for the fiscal year. 100% of newly generated TRU waste was shipped.			
Safety	Protect workers, the public and the environment	Radiochemical Processing Lab (RPL) Authorization Basis maintained completed per scheduled milestone.	No	RLST013104	7/31/01
	Status:	Currently no safety issues exist in the RPL. As issues are identified, they are immediately addressed and mitigated. Milestone was completed as scheduled.			
RL Outcome: Restore the river corridor for multiple uses					
Disposition Surplus Buildings	Number of buildings dispositioned	Dispose remaining PNNL legacy waste by completing 7% of the Legacy Waste Project lifecycle baseline.	No		7%
	Status:	Progress continued on the items in the baseline including significant progress on Special Case Waste. Six PNNL SARP drums were shipped during June and 9 in September. All of the Uranium fuel stored at 2718-E has been removed. Several drums of LLW have also been shipped. A recent effort identified a streamlined means of accelerating legacy disposal, and this has been very successful to date. The cleanout of the resins and liquids in the 604 Glovebox is completed, and the box is being placed in a stable condition pending the disposition of the remaining equipment in the box. This completes 23% of Legacy Waste lifecycle baseline and exceeds the FY2001 Performance Expectation of 7%.			
Disposition Surplus Buildings	Number of buildings dispositioned	Number of excess buildings/facilities transferred or torn down.	No		2

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	Status:	A MOA was drafted, reviewed, and approved by RL for the transfer of 24 facilities to Fluor. Transfer of these facilities took place during August. This exceeds the target of two facility transfers in FY01.			
Disposition Surplus Buildings	Number of buildings dispositioned	Percentage completion of annually scheduled legacy waste and contamination milestones.	No		>95%
	Status:	100% of all FY01 milestones were completed.			
Disposition Surplus Buildings	Number of buildings dispositioned	Support timely completion of TPA M-92: Complete disposition of ~ 6 kgs. of PNNL fuel fragment legacy waste by (9/30/2001). 7 drums of special case waste fuel fragments were shipped in September containing > 25 kgs.	No	RLST014103 M-92-14	9/30/01
	Status:				
Disposition Surplus Buildings	Number of buildings dispositioned	Support timely completion of TPA M-92-14: Complete disposition of legacy HD-LLW and RH-TRU waste from PNNL Radiochemical Processing Laboratory hot cells by x date (shown at the right).	No	RLST014003 M-92-14	9/28/2001
	Status:	The design documents, SARP, and procurement of drums was completed. The material was packaged, and 6 of the 11 drums shipped. The receiving contractor rejected the 5 remaining drums. Two of the drums were over packed into a standard waste box and were shipped to the LLW burial grounds on September 26 th . The remaining three will be repackaged and shipped in FY-02. Milestone RLST014003 was completed as scheduled.			
Reduce risks to the Columbia River from ground water contamination	Number of soil sites addressed	Number of Waste Identification Data System Sites assigned to PNNL dispositioned.	No		0
	Status:	The 200-W-16 WIDS site was exchanged for the 323 Tanks WIDS site. This exchange brings a better operational alignment that will enable more efficient management of the sites. Accelerated remediation of the 323 site was initiated and completed, which brings to close a legacy of approximately 20 years. Three new WIDS sites were assigned to PNNL: one is being proposed for rejection under TPA-MP-14, one will be evaluated at a later date under TPA-MP-14, and the remaining will be evaluated using a process established in the associated Record of Decision.			
Reduce risks to the Columbia River from ground water contamination	Number of soil sites addressed	Percentage of Waste Identification Data System sites characterized and associated surveillance/maintenance established.	No		100%
	Status:	All waste sites have basic characterization data, and identified S&M was complete for FY01.			