

Pacific Northwest National Laboratory Environmental Management Performance Report

February 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.

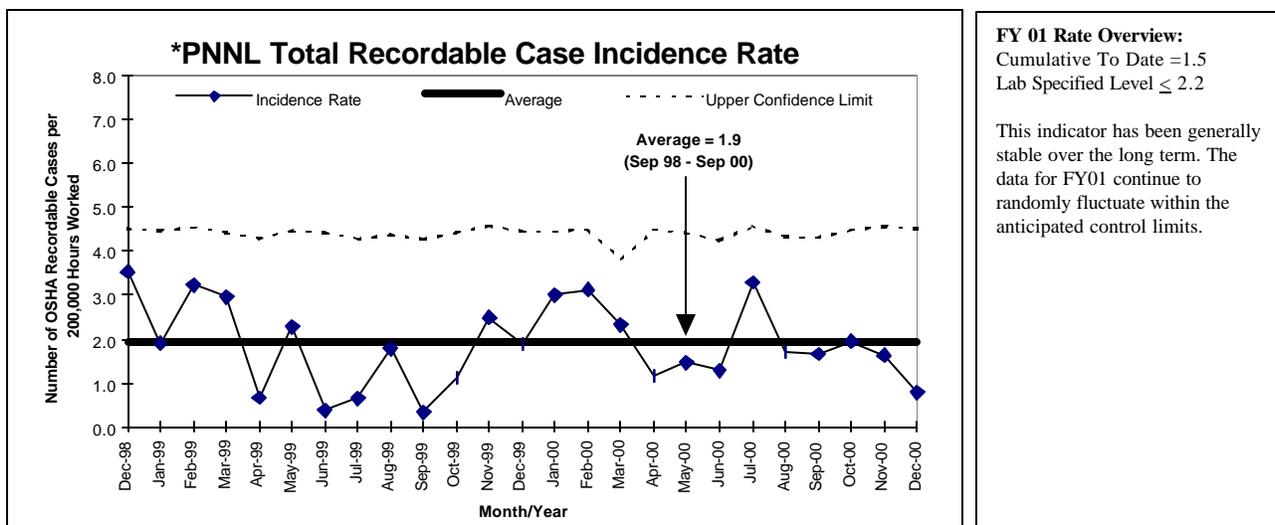
Section B, Project Performance Summary, provides a brief summary of the month's performance for the PNNL lead activity, PNNL Waste Management (PBS RL-ST01). More detailed information can be found within PNNL-7911-111a, PNNL's Project Status Report for December 2000. Summary analyses pertaining to PNNL's 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 December 31, 2000.

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, a summary of Fiscal Year (FY) 2001 Voluntary Protection Program (VPP) activities, followed by a stoplight chart on overall performance.

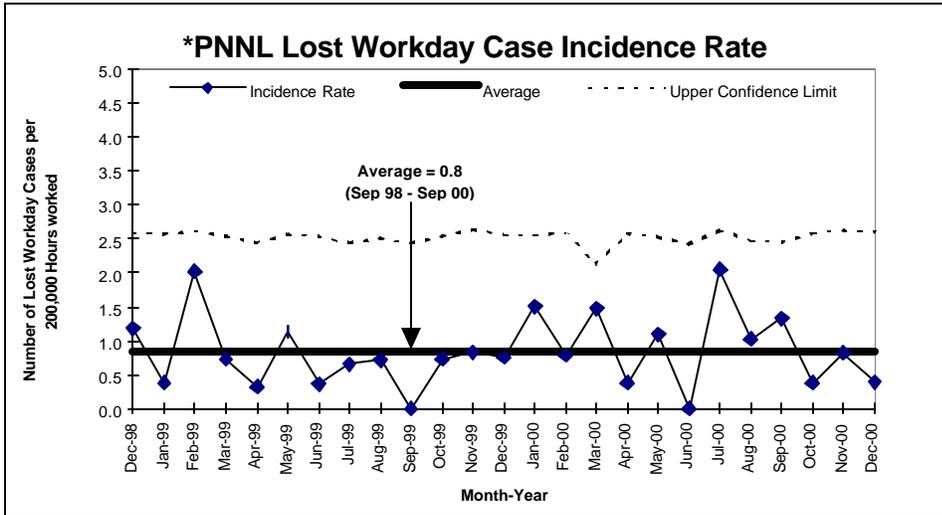
Safety Overview

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 FY2001 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 development and implementation of the Voluntary Protection Program (VPP).



Green

*Includes all Pacific Northwest National Laboratory Operations.



FY 01Rate Overview:
 Cumulative To Date = 0.5
 Lab Specified Level ≤ 1.1

This indicator has been generally stable over the long term. The data for FY01 continue to randomly fluctuate within the anticipated control limits.

Green

*Includes all Pacific Northwest National Laboratory Operations.

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 multiprogram 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 December 2000.

- Scheduled Radiochemical Processing Laboratory (RPL) radiological surveys and nuclear control inspections were performed. Inspections were completed for all facilities scheduled, which included the 1614-D3 building, the Fitzner-Eberhardt Arid Land Ecology Reserve buildings; 6652-C, D, H, G, M, I, J, the upper and lower pump houses, the shed, and the small observatory. No issues of significance were noted in any of the facilities.
- Scheduled routine waste management activities were performed during the period. All air and water samples required during the month of December 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.
- Sixty-eight 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. On December 5, the DOE-RL NEPA compliance officer approved a Categorical Exclusion (CX) that addresses the acceptance of offsite samples at the Hazardous Waste Treatment Unit (HWTU) in the RPL. This CX will allow Pacific Northwest to provide research into waste treatment and disposal methods to outside clients such as other Hanford contractors, other national laboratories, and other DOE complex sites. The approval of the CX is expected to result in greater flexibility and use of the HWTU.
- Four complete primary containers and two partial primary containers of the High-Dose Waste transferred from the RPL Shielded Analytical Lab (SAL) to the High Level Radiochemistry Facility (HLRF) were packaged for load out. Thirty pairs of gloves within the RPL Room 604 Glove box are being replaced to allow cleanup to continue.

Performance Data and Analysis

As of December 31, 2000 the cumulative costs are \$2.7 million with a negative cost variance of \$0.2M and a cumulative schedule variance of negative \$0.4M. The cost variance is within the 10 % reporting threshold. A brief explanation for the variances will be described following the tables and chart.

Cost Performance (\$M):			
	BCWP	ACWP	Variance
PNNL Waste Management	\$2.6	\$2.7	(\$0.2)

Schedule Performance (\$M):			
	BCWP	BCWS	Variance
PNNL Waste Management	\$2.6	\$3.0	(\$0.4)

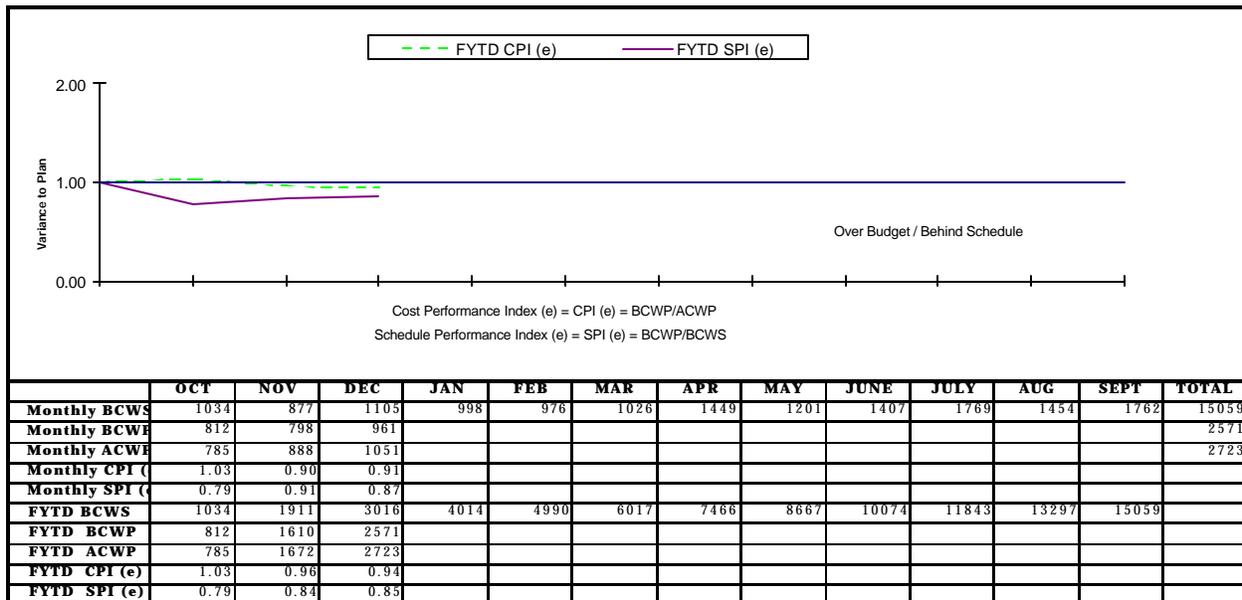
FY 2001 Cost/Schedule Performance - All Fund Types Cumulative to Date Status - (\$000)

WBS	PBS	BCWS	BCWP	ACWP	CV	%	SV	%
1.7.1	RL-ST01	\$3,016	\$2,571	\$2,723*	(\$152)	-6	(\$445)	-15
Total		\$3,016	\$2,571	\$2,723*	(\$152)	-6	(\$445)	-15

* Numbers reflect PNNL system; per DISCAS actuals, including \$ expended by Fluor for S&M of 242B/BL, are only \$2,715.3K.

Cost / Schedule Performance Indices

FY 2001 Cum to Date Status
 (\$000s)



The negative cost variance of \$0.2M primarily results from completing FY 2000 scope offset by delayed billings. In addition, FY 2001 rates have been finalized and are higher than anticipated during the planning process. The impacts of the cost increase will be incorporated in the baseline change request submitted January 9th that also includes carryover activities.

The schedule variance for December, of negative \$0.4M, is above the 10% threshold. The primary activities making up the negative schedule variance are as follows:

- Delays have been encountered within the Program awaiting resolution of FY 2001 funding allocations. Resolution on funding was received following the November Site Management Board meeting. Some activities needed to be deleted or deferred and revisions to scheduled activities associated with funding allocations were included in baseline change request submitted January 9th.
- Delays were encountered with procurement of High Dose Solid Waste shielded drums. As a result of this delay the drum shipping dates for the 73 cans of transuranic (TRU)/low-level waste (LLW) was pushed into the first quarter of FY 2001.
- Delays have been encountered in design and engineering efforts for the heating, ventilation, and air conditioning (HVAC) controls upgrade/replacement within the Radiochemical Processing Laboratory (RPL). Resources are reviewing proposal for combined HVAC controls and switchgear replacement within the facility. Delays are not expected to impact completion date.
- The integrity assessment of the radioactive liquid waste tank (RLWT)-piping is currently on hold with no defined completion date. The integrity assessment and associated waste processing continues to be delayed because the 204-AR Facility (receiver facility) is not ready, and Pacific Northwest does not want to add any liquids to the tank to make it a radiologically controlled tank until the receiver facility is ready.

Baseline Performance Outcomes, Objectives, and Measures

The baseline performance outcomes, objectives, and measures for PNNL Waste Management address “what are we 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 for the first quarter of FY 2001.

<u>RL Objective</u>	<u>RL Multi-Year Performance Measure</u>	<u>Performance Measure</u>	<u>Proposed FY 2001 EM Commitment: Y/N</u>	<u>TPA # CMM #</u>	<u>FY 2001</u>
<i>RL Outcome: Put DOE assets to work for the future</i>					
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 <i>Status:</i> There were no non-compliances during the first quarter FY-2001.	No		<2
Operational Excellence	Operate in a manner conducive to excellence and quality	Maintain fiscal year end cost and schedule variances within established thresholds <i>Status:</i> The WMOC Program cost variance for the first quarter is -\$152K (-6%) and is well within established thresholds. The schedule variance is -\$445 K (-15%). Though slightly above established thresholds, variances will be reduced following approval of change requests.	No		+/- 10%
Safety	Protect workers, the public and the environment	Initiate appropriate response to any unsafe condition identified during surveillance and maintenance of EM facilities assigned to PNNL within x days of discovery (as shown to the right) <i>Status:</i> 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. Any unsafe condition discovered in RPL is addressed immediately.	No		1
Safety	Protect workers, the public and the environment	Quantity of HAZ waste (MT) shipped for storage or disposal <i>Status:</i> During the first quarter of FY 2000, 7,458 Kgs of non-radioactive hazardous wastes were shipped for offsite treatment and disposal. This is in line with expected generation rates for FY 2001. As is typical, waste generation is lower during the first part of the FY due to project ramp up activities.	No		81,000
Safety	Protect workers, the public and the environment	Quantity of LLMW (m3) shipped for storage or disposal <i>Status:</i> During the first quarter of FY 2000, 0.416 Cubic meters of LLMW (Mixed Waste) were shipped.	No		22

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Section B - Project Performance Summary

<u>RL Objective</u>	<u>RL Multi-Year Performance Measure</u>	<u>Performance Measure</u>	<u>Proposed FY 2001 EM Commitment: Y/N</u>	<u>TPA # CMM #</u>	<u>FY 2001</u>
Safety	Protect workers, the public and the environment	Quantity of LLW (m3) shipped for storage or disposal <i>Status:</i> During the first quarter of FY 2000, 7.072 cubic meters of LLW (Low Level Waste) were shipped.	No		150
Safety	Protect workers, the public and the environment	Quantity of TRU waste (m3) shipped for storage or disposal <i>Status:</i> During the first quarter of FY 2000, no TRU (Transuranic waste) was shipped.	No		6
Safety	Protect workers, the public and the environment	Radiochemical Processing Lab (RPL) Authorization Basis maintained current per scheduled milestone <i>Status:</i> Currently no safety issues exist in the RPL. As issues are identified, they are immediately addressed and mitigated.	No	RLST013 104	7/31/2001
RL Outcome: Restore the river corridor for multiple uses					
Disposition Surplus Buildings	Number of buildings dispositioned	Dispose remaining PNNL legacy waste by completing x% (shown to the right) of the Legacy Waste Project lifecycle baseline <i>Status:</i> Progress continues on the items in the baseline including significant progress on Special Case Waste, disposition of 1.5 metric tons of Uranium, and glove box remediation. A recent effort was completed to identify a streamlined means of accelerating backlog work off, which will be implemented starting in January of 01. Total earned value this quarter is 2%.	No		7%
Disposition Surplus Buildings	Number of buildings dispositioned	Number of excess buildings/facilities transferred or torn down <i>Status:</i> A MOA was drafted, reviewed, and started in the signature cycle for the transfer of 25 facilities to the contractors who are specialists in the next stages of facility final disposition. Transfer of these facilities is anticipated for this fiscal year.	No		2
Disposition Surplus Buildings	Number of buildings dispositioned	Percentage completion of annually scheduled legacy waste and contamination milestones <i>Status:</i> No milestones are due until later in the year.	No		>95%
Disposition Surplus Buildings	Number of buildings dispositioned	Support timely completion of TPA M-92-14: Complete disposition of ~ 6 kgs of PNNL SNF legacy waste by x date (9/30/2001) <i>Status:</i> The completion of the design documents, SARP, was completed; procurement of the drums is 99% complete. Gathering the necessary information for disposition of the material is underway.	No	RLST014 103 M-92-14	
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	RLST014 003 M-92-14	12/31/2000

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<u>RL Objective</u>	<u>RL Multi-Year Performance Measure</u>	<u>Performance Measure</u>	<u>Proposed FY 2001 EM Commitment:</u> Y/N	<u>TPA #</u> <u>CMM #</u>	<u>FY 2001</u>
		<i>Status:</i> The completion of the design documents, SARP, was completed, procurement of the drums is 99% complete, and the majority of the work scope associated with the packaging of the material is completed. A change request is in the approval process to revise the completion date of this milestone to 6/30/2001.			
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 (rejected, transferred or closed)	No		0
		<i>Status:</i> The operational history of the 200-W-16 WIDS site was researched in preparation for transition to Fluor. The 323 Tanks WIDS site will be taken in exchange. This exchange brings a better operational alignment, which will enable more efficient management of the sites. Letters for transfer are being drafted.			
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%
		<i>Status:</i> All waste sites have basic characterization data, and identified S&M is being accomplished.			