

# Environmental Management Performance Report

January 2002



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**Department of Energy**  
Richland Operations Office



**Bechtel Hanford, Inc.**  
Environmental Restoration Contractor

Data as of month-end January

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## INTRODUCTION

The monthly Environmental Restoration (ER) Environmental Management Performance Report (EMPR) consists of four sections: Section A - Executive Summary, Section B – River Corridor Restoration, Section C - Central Plateau Transition, and Section D – Site Integration and Infrastructure. All data is current as of January 31.

**Section A – Executive Summary.** This section provides an executive level summary of Environmental Restoration Contractor's (ERC) performance information for the current reporting month and is intended to bring to management's attention that information considered most noteworthy. The Executive Summary begins with a description of notable accomplishments that are considered to have made the greatest contribution toward safe, timely, and cost-effective Hanford Site cleanup. Safety statistics are also included. Major commitments are summarized that encompass Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) milestones and FY02 Environmental Management (EM) corporate performance measures and objectives. Fiscal year-to-date ER Project cost and schedule variance analysis is summarized. Issues that require management and/or regulator attention are addressed along with resolution status. The Key Integration Activities section highlights site activities that cross contractor boundaries, supporting overall Hanford Site goals. The Executive Summary ends with a listing of major upcoming planned key events (90-day look ahead).

**Section B – River Corridor Restoration.** This section contains more detailed ERC monthly activity information and performance status for the three PBSs within the River Corridor Restoration outcome. These three PBSs consist of RC01 - 100 Area River Corridor Cleanup, RC02 - 300 Area Cleanup, and RC05 - River Corridor Waste Management.

**Section C – Central Plateau Transition.** This section contains more detailed ERC monthly activity information and performance status for the one PBS within the Central Plateau Transition outcome. This PBS consists of CP01 – 200 Area Remediation.

**Section D – Site Integration & Infrastructure.** This section contains more detailed ERC monthly activity information and performance status for the two PBSs within the Site Integration and Infrastructure outcome. These two PBSs consist of SS03 – Groundwater Management and Monitoring, and SS04 – Groundwater/Vadose Zone (GW/VZ) Integration.

PBS SC01 – Near Term Stewardship is structured within the Site Stewardship outcome. Due to the minimal FY02 workscope identified for this PBS, SC01 performance data will be included in the Executive Summary cost/schedule overview.

Performance Incentive and Safety information in this report is identified with a green, yellow or red text box used as an indicator of the overall status. Green indicates work or issue resolution is satisfactory and generally meets or exceeds requirements, yellow indicates that significant improvement is required, and red indicates unsatisfactory conditions that require immediate corrective actions.

# Section A - Executive Summary



*Central Plateau Transition*



*River Corridor Restoration*



*Site Integration & Infrastructure*

Data as of month-end January

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ENVIRONMENTAL RESTORATION  
JANUARY 2002**

**SECTION A – EXECUTIVE SUMMARY**

**Data as of month-end January**

**NOTABLE ACCOMPLISHMENTS:**

**General:**

On January 4, the Environmental Restoration Contractor (ERC) team reached 1 million hours without a lost workday injury. This is the fifth time that the ERC has achieved this significant milestone since Bechtel Hanford, Inc. (BHI) and its pre-selected subcontractors began work at the Hanford Site in July 1994. The last time the ERC team reached a million hours without a lost workday injury was in May 2000.

The Hanford Site Tri-Party Agreement Public Involvement Community Relations Plan and the Comment and Response document were completed. Approval from the regulators was also received. These documents were placed on the web site at <http://www.hanford.gov/tpa/tpahome.htm> on January 18.

Formal rebaselining of the ER FY02 work plans was initiated upon receipt of the fiscal year 2002 (FY02) funding guidance from U.S. Department of Energy, Richland Operations Office (RL) on January 17.

**River Corridor Restoration:**

Pipeline plume excavation activities continued in the 100 B/C Area. Clean overburden removal, pipe shearing, concrete thrust block demolition, and loadout activities continued on various pipelines as well. Verification (confirmation) sampling was completed at the three outfall structures.

In the 100 F Area, excavation activities continued at the 126-F-1 Ash Pit. A section of the ash pit scheduled for excavation and disposal at the Environmental Restoration Disposal Facility (ERDF) was removed and stockpiled as overburden (in-process monitoring indicated it was uncontaminated). This could result in a waste minimization of 5,897 metric tons (6,500 tons).

In the 100 N Area, plume excavation activities at the 116-N-3 Crib were completed. Confirmation sampling activities were delayed at the 116-N-3 Crib, Pipeline, and Bypass due to additional plumes and isolated contamination identified by the Laser-Assisted Ranging and Data System (LARADS) surveys. Confirmation sampling is expected to begin in February. Demolition and processing activities continued at the 116-N-1 Trench along with 116-N-3 plume removal. Excavation and loadout activities at the 116-N-1 Trench resumed at the end of January.

On January 23, a contract was awarded for the 618-4 and 618-5 Burial Grounds remediation. A pre-construction meeting was held with the remediation subcontractor on January 31. Mobilization will begin in the 300 Area once the preliminary activity hazards analysis for specific mobilization activities has been approved.

During January, ERDF received 49,854 metric tons (54,955 tons) of contaminated waste, for a total of 182,468 metric tons (201,137 tons) received to-date in FY02. A total of 3,043,095 metric tons (3,354,438 tons) have been disposed in ERDF since operations began in July 1996. ERDF Disposal personnel have worked 69 months without a lost-time accident, and the ERDF Transportation team has driven 9,307,747 kilometers (5,783,566 miles) without an at-fault vehicle accident.

The 233-S waste package (Box 39) that was exhumed from ERDF, due to suspect characterization data, has been repackaged and is ready for transport to the Low-Level Burial Ground (LLBG) for permanent disposal.

A readiness review briefing was held with Project and subcontractor management prior to initiating DR Reactor safe storage enclosure (SSE) work. The subcontractor was given Notice to Proceed with demolition activities, and full-scale demolition began on January 29. Progress continued on the D, H, and F Reactor interim safe storage (ISS) activities as well.

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**NOTABLE ACCOMPLISHMENTS continued:**

Another spent nuclear fuel (SNF) element was recently located in the F Reactor Fuel Storage Basin (FSB). The element is being stored in the FSB holding container pending transfer to K Basin. This brings the total number of fuel elements/partial elements found in the F Reactor FSB to 11 elements.

The 100-KR-4 pump and treat upgrade injection well was completed, and installation of the extraction well is in progress. The subcontractor was mobilized to perform system upgrades at the 100-HR-3 and 100-KR-4 groundwater pump and treat units as well.

The three River Corridor groundwater pump and treat systems operated above the planned 90% availability levels in January.

Significant River Corridor surveillance and maintenance (S&M) activities that were performed in January to ensure inactive facility integrity and safety included replacement of the electrical breaker at B Reactor, issuance of Draft A of the B Reactor Hazards Mitigation Remedial Action Work Plan (RAWP) for RL/regulator review, and issuance of the public B Reactor Hazards Mitigation Action Memorandum.

**Central Plateau Transition:**

Good progress continued on decommissioning of the highly contaminated 233-S Plutonium Concentration Facility. Removal of piping, hangers, and flat steel continued, and waste containers were prepared for shipment and disposal.

Well drilling was completed to a total depth of 87.6 meters (287.5 feet) at the Plutonium Finishing Plant (PFP) in support of the carbon tetrachloride investigation.

The two Central Plateau pump and treat systems operated above the 90 percent availability level in January.

**Site Integration and Infrastructure:**

The new Groundwater/Vadose Zone (GW/VZ) Integration Project System Assessment Capability (SAC) processors and analysis workstations that will be used to perform assessments were received in January. These components were assembled and are being tested. Use of this system will greatly reduce the time required to perform calculations for probabilistic assessments.

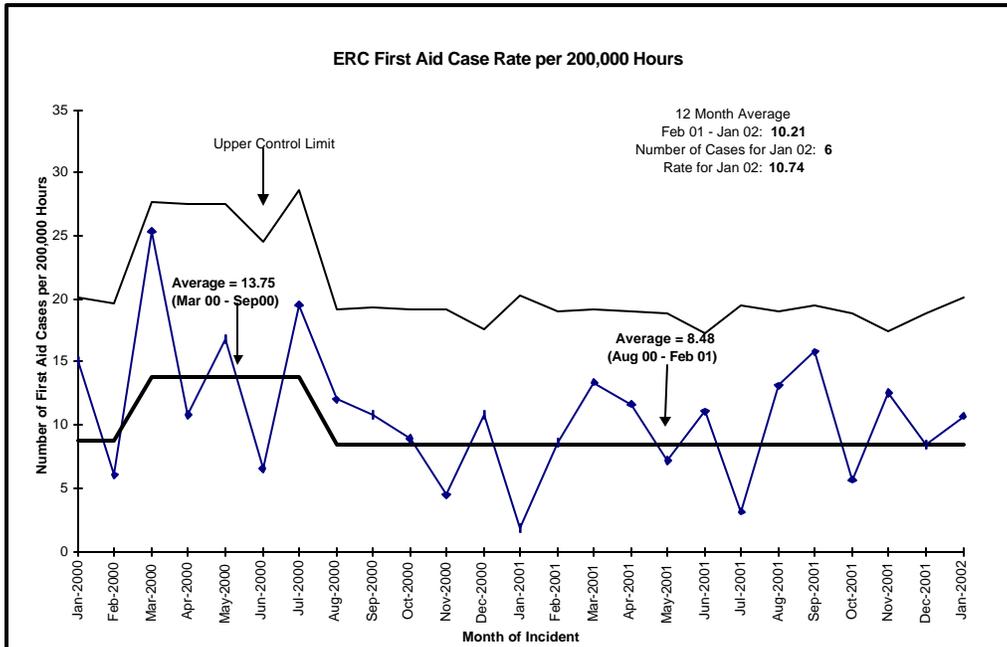
A workshop was held to update the existing technical elements in the Science and Technology (S&T) roadmap. The workshop participants included other national laboratories, Hanford Site contractors, RL, regulators, Tribal Nations, and stakeholders.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

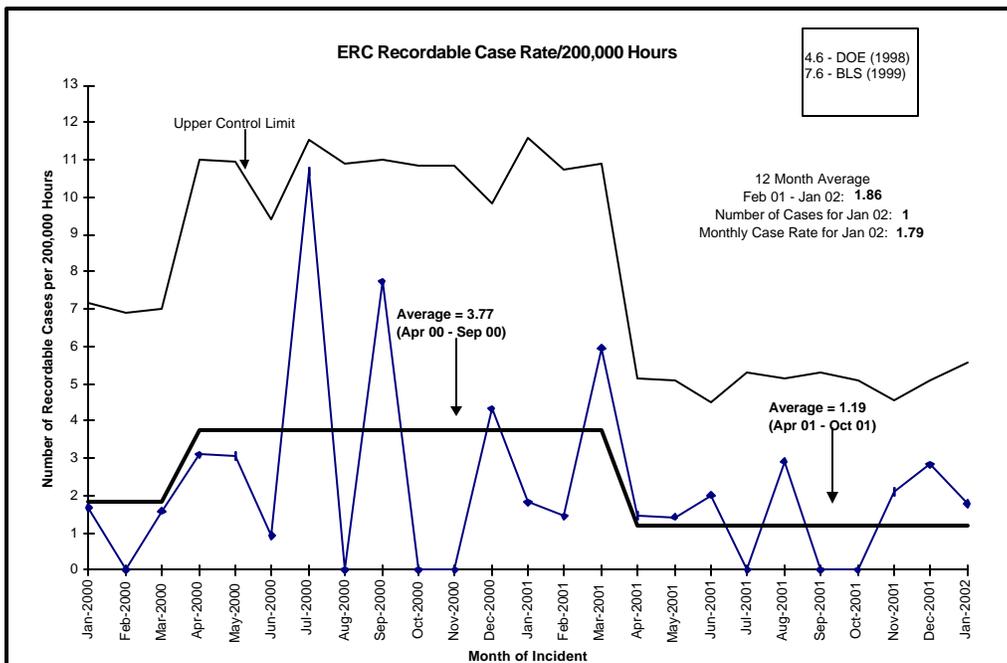
## ENVIRONMENTAL RESTORATION

### JANUARY 2002

**SAFETY:**



This data has been stable since August 2000, as there have been no significant trends.



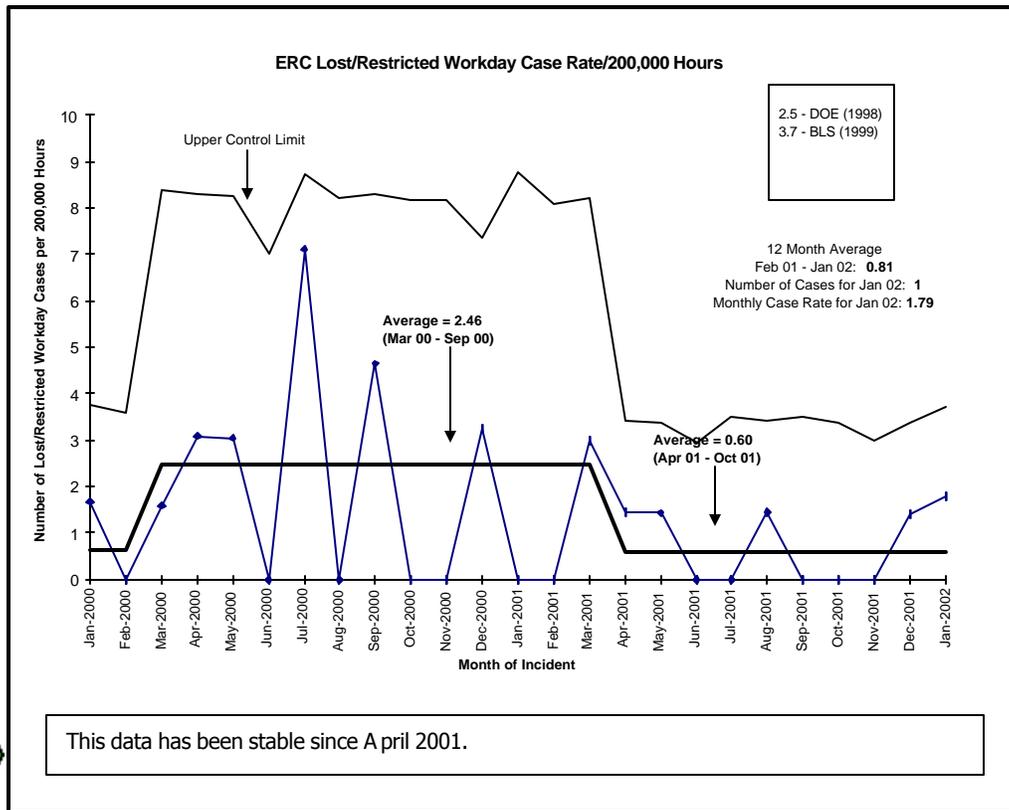
This data has been stable since April 2001.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

### JANUARY 2002

**SAFETY continued:**



The following actions have or are being taken by the Environmental Restoration Contractor (ERC) to focus on safety improvements:

- All accidents are thoroughly investigated. Emphasis is placed on causes and corrective actions that can be implemented where applicable. Timely discussions are expected to take place in safety meetings and plan of the day (POD) meetings. When investigations have been completed, the results of each investigation are sent to the Area Superintendents, Field Superintendents, and Supervisors to review at the PODs.
- BHI continues to look for trends and consult with corporate and other Bechtel National, Inc. (BNI) contacts for ways to enhance performance.
- BHI continues to work closely with the Hanford Atomic Metal Trades Council (HAMTC) Safety Representative to resolve safety issues as they arise.
- Senior management continues to meet with small groups of employees in the field to discuss safety and personal commitment.
- The Field Support General Superintendent and Project Safety Manager continue to visit different projects on a regular basis, meet with project team members, and conduct a safety walkaround. Area Superintendents for Decontamination and Decommissioning (D&D) Projects/233-S, Surveillance, Maintenance, and Transition (SM&T), and Groundwater/Vadose Zone (GW/VZ) will be included in these walkarounds and will be visiting projects other than those for which they are responsible. Information from the walkaround is shared with the team and other Field Support personnel. Safety conditions requiring corrective action are assigned to project personnel or support personnel for action and are tracked to closure. This activity is ongoing.
- The ERC has invited "Brown Bag Speakers" to join employees during lunchtime at the 3350 George Washington Way facility to discuss various safety and health topics.

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**SAFETY continued:**

|                                | <b>FYTD</b> | <b>Current Period<br/>(12/24/01-<br/>1/20/02)</b> | <b>Current Period Comments</b>                            |
|--------------------------------|-------------|---|---|
| <b>First Aid</b>               | 28          | 6   | (4) strain/pain, (2) laceration                           |
| <b>OSHA Recordable</b>         | 5           | 1 (includes restricted<br>workday case)           | (1) pipefitter hit head against bolt<br>requiring sutures |
| <b>Restricted Workday Case</b> | 2           | 1   | (1) pipefitter hit head against bolt<br>requiring sutures |
| <b>Lost Workday Case</b>       | 0           | 0   | N/A   |

**Status:**

- The ERC, as of January 31, has worked approximately 1,138,000 hours without a lost workday case. The last incident occurred on May 7 and became a lost time on May 31. Continuous employee involvement is being fostered by the Integrated Environmental Safety and Health Management System (ISMS), Voluntary Protection Program (VPP), labor alliance programs, e-mail communications and one-on-one meetings with employees.
- ERC task teams were established to review oversight of subcontractors, and flowdown of Environmental Safety and Health (ES&H) requirements to subcontractors. A management review of both processes was performed. In addition to targeted process improvement actions, additional areas were identified that require evaluation prior to development of the final corrective action plan.
- An Incident Review Board was held on January 21, to review 1) the head injury to an employee at the 105-H east water tunnel, and 2) the injury involving a portable electric-powered band saw at the 233-S process hood/viewing room. Emphasis was made for employees to be more aware of surroundings and do a better job of pre-planning scope.

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**SAFETY continued:**

**Integrated Environmental Safety and Health Management System (ISMS):**

**Status:**

- The ERC Configuration Management Plan (CMP) BHI-01482 which delineates the Configuration Management process, was issued in September for ERC-wide use. The CMP requires that each project and functional department develop and maintain a Configuration Management Implementation Plan (CMIP) specific to the project and the functional group's tasks. During this month, Design Engineering and Environmental Technology functional departments have issued their CMIPs. Remaining projects and functional departments are in the process of developing their CMIPs. Implementation of CMP in conjunction with applicable CMIP is intended to satisfy 1) worker and public safety, 2) facility safety, 3) environmental protection, 4) regulatory requirements, and 5) cyber security.
- A six-month verification of emissions for the Purgewater Storage and Treatment Facility was performed. After the Hanford Air Operating Permit was signed on July 2, 2001, a six-month verification of the terms and conditions was required for each emission unit. A computerized matrix has been developed to document the verification to terms and conditions to each emission unit.
- Technical assistance was provided to RL, the Office of River Protection (ORP), and BNI to safely and adequately resolve Issue 9-14 (Cultural Resources) for the Waste Treatment Plant (WTP) Project. Discussion focused on two issues: 1) safe and adequate training, and 2) the need for a project-specific "Plan of Action" for unanticipated discoveries. Participants determined that additional training in artifact recognition, targeted on field personnel conducting earth-disturbing actions, was required. They also determined that the provisions of the Hanford Cultural Resources Management Plan were adequate to direct actions in the event that cultural materials are uncovered during construction operations. BHI support will be provided in addressing training needs, and providing a process flowchart of required steps to be taken if a discovery is made.
- Regulatory Support personnel participated with all site contractors, RL, and ORP to finalize the Polychlorinated Biphenyl Hanford Site User's Guide for safe use at the Hanford Site. The guide will be a living document that will be updated as needed to address specific issues and/or changes in the regulations.
- A revision of the Waste Management Manual (BHI-EE-10) was completed. The comprehensive revision of BHI-EE-10 was based on waste management processes identified for improvement through the Six-Sigma Process (procedures and a process flow diagram). To meet the objectives and goals of Six Sigma to improve waste management processes and provide consistency, BHI-EE-10 required the revision. Revisions included the development of new procedures, consolidation of old procedures, streamlining procedures, deletion of procedures, and clarification of procedures to identify new requirements, correct errors, provide clarity, improve regulatory basis, address self assessment observations and Corrective Action Requests (CARs), and improve the general flow of the manual. Project review is scheduled for two weeks, with an expected issue date of February 28.
- A joint team of ERC and Pacific Northwest National Laboratory (PNNL) staff completed the annual technical and quality audit of the Severn Trent Richland Laboratory. The Richland facility provides radiochemical support and is ERC's secondary commercial laboratory for this service. The audit went well, with one finding and a limited number of observations.
- Fifteen self-assessments, eight Quality Services surveillance reports, one nonconformance report, one independent assessment, and one issue brought to the attention of management were screened for Price-Anderson Amendments Act (PAAA) compliance determinations.

**Conduct of Operations:**

**Status:** No significant issues were reported in the Corrective Action Tracking System (CATS) database for the current reporting period.

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**PROCESS IMPROVEMENTS:**

**Six Sigma:**

**Status:**

- Implementation of Six Sigma program across the ERC continues.
- Development of the Draft Six Sigma Program Implementation Plan is about 95 percent complete.
- Supporting RL yellow belts with the development and implementation of Six Sigma processes.
- Supporting RL in training additional yellow belts.

Process Improvement Projects (PIPs) and status include:

- The Radiological Work Control Process PIP (PIP #6) is in the "Analyze Phase" and is about 50 percent complete.
- Evaluating two processes as potential PIP candidates: Waste Management Automation and Integration Improvement, Nevada / Hanford Waste Acceptance Phase 2, and Authorization Basis Process.

**MAJOR COMMITMENTS:**

Tri-Party Agreement **Milestones:** Seventeen (17) Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) milestones are planned for completion during FY02 (16 FY02 planned milestones and 1 "to be determined" [TBD] dated milestone). Through January, 11 milestones have been completed; 10 ahead of schedule, and 1 on schedule.

One milestone, M-16-27C "Complete 100-HR-3 Phase III ISRM Barrier Emplacement" (due September 30, 2002), is anticipated to be extended. The regulators agreed to extend the completion date to June 30, 2003. A change request will be prepared and forwarded for approval.

| Total Tri-Party Agreement Milestones Due in FY02 | 17* |
|--|-----|
| Total Planned Through January                    | 8   |
| Total Completed Through January                  | 11  |

\*Includes a "TBD" milestone

| Remaining Tri-Party Agreement Milestones to be Completed in FY02 | 6 |
|--|---|
| Forecast Ahead of Schedule                                       | 3 |
| Forecast On Schedule   | 1 |
| Forecast Unrecoverable (change request to be prepared)           | 1 |
| Forecast to be Deleted   | 1 |

**EM Corporate Performance Measures:**

|                        | DWP FY02 | FY02 Mgmt Commitments | Current Baseline | Completed YTD |
|------------------------|----------|-----------------------|------------------|---------------|
| Waste Site Excavations | 13       | 13**                  | 10               | 3             |
| Technology Deployments | 0        | 3                     | 3                | 0             |

\*\*IPABS currently reporting 12 (change request pending).

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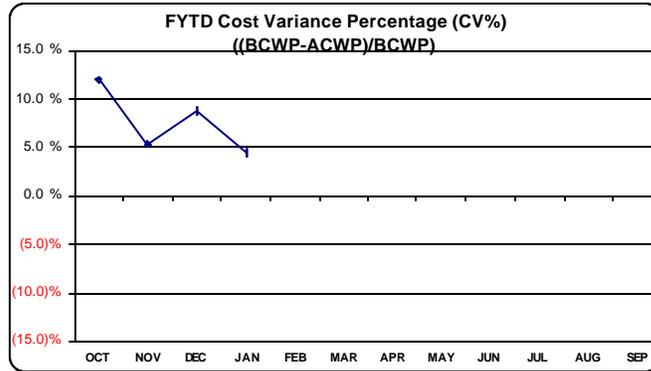
**PERFORMANCE OBJECTIVES:**

RL has not formally transmitted final FY02 Performance Incentives (PIs) to BHI.

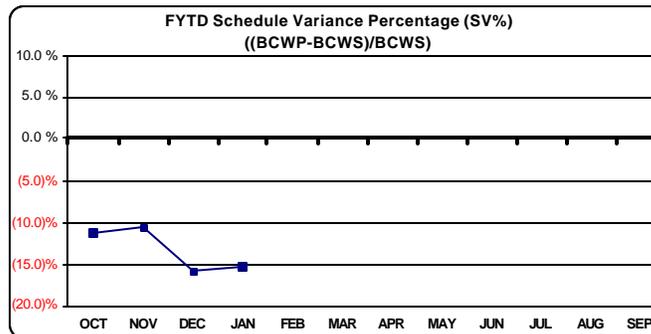
# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT ENVIRONMENTAL RESTORATION JANUARY 2002

## TOTAL ERC COST/SCHEDULE OVERVIEW:

### FY02 ER PERFORMANCE SUMMARY FYTD JANUARY 2002 (\$K)



|                            | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY     | JUN     | JUL     | AUG     | SEP     | EAC     |
|----------------------------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| <b>CURRENT PERIOD</b>      |        |        |        |        |        |        |        |         |         |         |         |         |         |
| ACWP                       | 10,237 | 12,390 | 11,786 | 13,451 |        |        |        |         |         |         |         |         |         |
| BCWP                       | 11,635 | 12,272 | 13,862 | 12,378 |        |        |        |         |         |         |         |         |         |
| <b>FISCAL YEAR TO DATE</b> |        |        |        |        |        |        |        |         |         |         |         |         |         |
| ACWP                       | 10,237 | 22,627 | 34,413 | 47,864 |        |        |        |         |         |         |         |         |         |
| BCWP                       | 11,635 | 23,907 | 37,769 | 50,147 |        |        |        |         |         |         |         |         |         |
| CV                         | 1,398  | 1,280  | 3,356  | 2,282  |        |        |        |         |         |         |         |         |         |
| CV%                        | 12.0%  | 5.4%   | 8.9%   | 4.6%   |        |        |        |         |         |         |         |         |         |
| EAC (Cumulative)           | 10,237 | 22,627 | 34,413 | 47,864 | 64,299 | 82,571 | 96,824 | 110,395 | 125,867 | 138,409 | 151,353 | 168,819 | 169,200 |



|                            | OCT     | NOV     | DEC     | JAN     | FEB    | MAR    | APR     | MAY     | JUN     | JUL     | AUG     | SEP     |
|----------------------------|---------|---------|---------|---------|--------|--------|---------|---------|---------|---------|---------|---------|
| DWP                        | 10,994  | 11,433  | 14,984  | 13,383  | 12,125 | 15,162 | 12,865  | 12,486  | 13,558  | 11,837  | 12,074  | 14,835  |
| DWP (Accum)                | 10,994  | 22,427  | 37,411  | 50,794  | 62,919 | 78,081 | 90,946  | 103,432 | 116,990 | 128,827 | 140,901 | 155,736 |
| <b>CURRENT PERIOD</b>      |         |         |         |         |        |        |         |         |         |         |         |         |
| BCWS                       | 13,121  | 13,631  | 18,145  | 14,309  | 13,681 | 17,419 | 13,448  | 12,648  | 13,383  | 11,953  | 12,217  | 14,471  |
| BCWP                       | 11,635  | 12,272  | 13,862  | 12,378  |        |        |         |         |         |         |         |         |
| <b>FISCAL YEAR TO DATE</b> |         |         |         |         |        |        |         |         |         |         |         |         |
| BCWS                       | 13,121  | 26,752  | 44,897  | 59,206  | 72,887 | 90,307 | 103,755 | 116,403 | 129,786 | 141,738 | 153,955 | 168,426 |
| BCWP                       | 11,635  | 23,907  | 37,769  | 50,147  |        |        |         |         |         |         |         |         |
| SV                         | (1,486) | (2,845) | (7,128) | (9,060) |        |        |         |         |         |         |         |         |
| SV%                        | -11.3%  | -10.6%  | -15.9%  | -15.3%  |        |        |         |         |         |         |         |         |

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**TOTAL ERC COST/SCHEDULE OVERVIEW continued:**

**FY02 ER PBS PERFORMANCE SUMMARY  
FYTD JANUARY 2002  
(\$K)**

|                          | FY02 DWP<br>BCWS | CURRENT<br>BCWS | FYTD          |               |               | YTD<br>SCHEDULE VARIANCE |               | YTD<br>COST VARIANCE |              | EAC            |
|--------------------------|------------------|-----------------|---------------|---------------|---------------|--------------------------|---------------|----------------------|--------------|----------------|
|                          |                  |                 | BCWS          | BCWP          | ACWP          | \$                       | %             | \$                   | %            |                |
| RC01                     | 68,776           | 73,654          | 26,093        | 21,442        | 20,684        | -4,651                   | -17.8%        | 758                  | 3.5%         | 74,162         |
| RC02                     | 9,444            | 9,865           | 2,944         | 1,792         | 1,638         | -1,152                   | -39.1%        | 154                  | 8.6%         | 9,909          |
| RC05                     | 24,259           | 25,961          | 8,738         | 8,289         | 7,866         | -449                     | -5.1%         | 423                  | 5.1%         | 25,956         |
| <b>RCR-Subtotal</b>      | <b>102,479</b>   | <b>109,480</b>  | <b>37,775</b> | <b>31,523</b> | <b>30,188</b> | <b>-6,252</b>            | <b>-16.6%</b> | <b>1,335</b>         | <b>4.2%</b>  | <b>110,027</b> |
| CP01                     | 32,663           | 33,831          | 11,293        | 9,858         | 9,670         | -1,435                   | -12.7%        | 188                  | 1.9%         | 34,072         |
| <b>CPT-Subtotal</b>      | <b>32,663</b>    | <b>33,831</b>   | <b>11,293</b> | <b>9,858</b>  | <b>9,670</b>  | <b>-1,435</b>            | <b>-12.7%</b> | <b>188</b>           | <b>1.9%</b>  | <b>34,072</b>  |
| SS03                     | 17,141           | 18,097          | 5,948         | 5,754         | 5,332         | -194                     | -3.3%         | 422                  | 7.3%         | 18,215         |
| SS04                     | 3,382            | 6,949           | 4,181         | 3,004         | 2,667         | -1,177                   | -28.2%        | 337                  | 11.2%        | 6,818          |
| <b>SI&amp;I-Subtotal</b> | <b>20,523</b>    | <b>25,046</b>   | <b>10,129</b> | <b>8,758</b>  | <b>7,999</b>  | <b>-1,371</b>            | <b>-13.5%</b> | <b>759</b>           | <b>8.7%</b>  | <b>25,033</b>  |
| SC01                     | 71               | 69              | 9             | 9             | 7             | 0                        | 0.0%          | 2                    | 22.2%        | 68             |
| <b>SS-Subtotal</b>       | <b>71</b>        | <b>69</b>       | <b>9</b>      | <b>9</b>      | <b>7</b>      | <b>0</b>                 | <b>0.0%</b>   | <b>2</b>             | <b>22.2%</b> | <b>68</b>      |
| <b>ERC TOTAL</b>         | <b>155,736</b>   | <b>168,426</b>  | <b>59,206</b> | <b>50,148</b> | <b>47,864</b> | <b>-9,058</b>            | <b>-15.3%</b> | <b>2,284</b>         | <b>4.6%</b>  | <b>169,200</b> |

**Schedule Variance Summary:**

Through January, the ER Project is \$9.1M (-15.3%) behind schedule. The negative schedule variance is attributed to late arrival of Reactor ISS excavator, delay of subcontractor key document submittals for DR Reactor SSE roof demolition, higher-than-expected radiation readings at the F Reactor FSB, and D Reactor excavation equipment downtime; delayed award of 618-4 Burial Ground remediation contract and remediation delays due to inclement weather; late contract award for system upgrades at two 100 Area groundwater pump and treat units, PFP well drilling relocation, and GW/VZ Science and Technology (S&T) scope delays due to awaiting FY02 funding guidance. No significant impacts are expected to result.

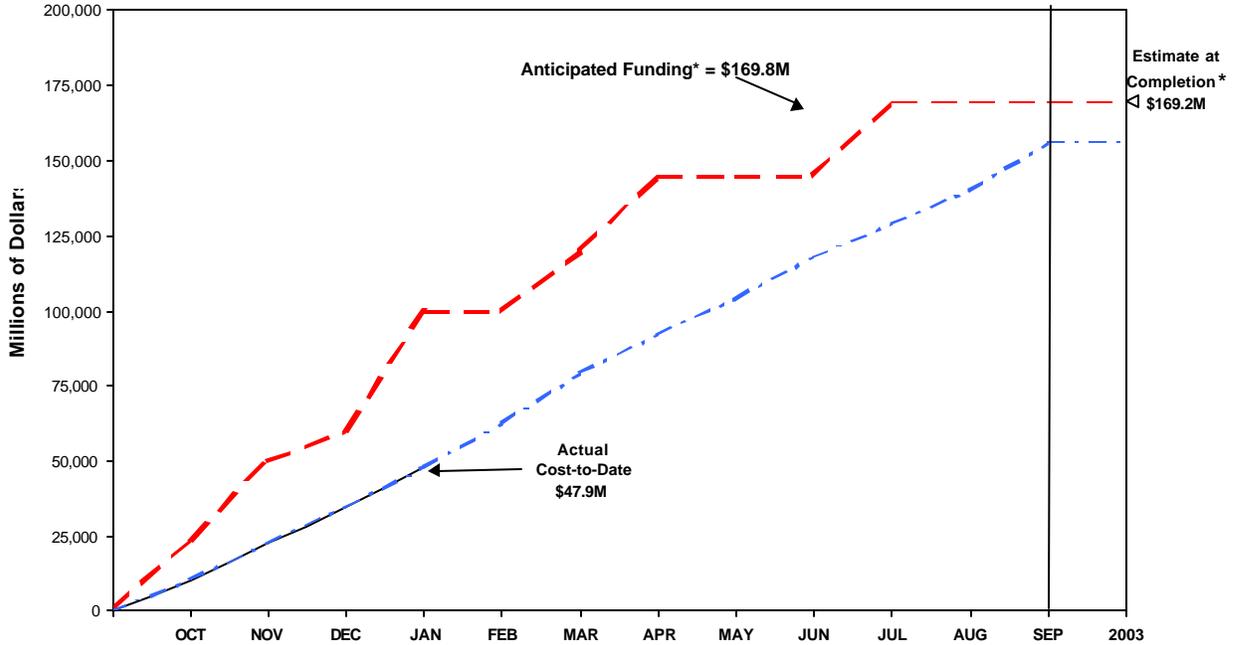
**Cost Variance Summary:**

At the end of January, the ER Project had performed \$50.1M worth of work, at a cost of \$47.9M. This results in a favorable cost variance of \$2.3M (+4.6%). The positive cost variance is attributed to lower labor costs at 100 F and 100 B/C Areas, less GW/VZ Congressional report and Hanford Advisory Board (HAB) support costs than planned, and performance fee adjustments due to transition scope reduction.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT ENVIRONMENTAL RESTORATION JANUARY 2002

## TOTAL ERC COST/SCHEDULE OVERVIEW continued:

### FY02 FUNDS MANAGEMENT



|  | OCT    | NOV    | DEC    | JAN     | FEB     | MAR     | APR     | MAY     | JUN     | JUL     | AUG     | SEP     | 2003            |           |
|--|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------------|-----------|
| <b>ANTICIPATED FUNDING*</b>  | 24,017 | 50,000 | 60,000 | 100,000 | 100,000 | 120,000 | 145,000 | 145,000 | 145,000 | 169,753 | 169,753 | 169,753 | Est. Outyr. ETC | EAC TOTAL |
| <b>ACTUAL/EAC ON APPROVED SCOPE</b>                                  |        |        |        |         |         |         |         |         |         |         |         |         |                 |           |
| 1 Actual Cost  | 10,237 | 22,627 | 34,413 | 47,864  |         |         |         |         |         |         |         |         |                 |           |
| 2 Current Monthly EACs   | 10,237 | 12,391 | 11,786 | 13,451  | 16,434  | 18,272  | 14,254  | 13,571  | 15,470  | 12,543  | 12,945  | 17,466  |                 |           |
| 3 Cumulative EAC   | 10,237 | 22,628 | 34,414 | 47,865  | 64,299  | 82,571  | 96,825  | 110,396 | 125,866 | 138,409 | 151,354 | 168,820 | 380             | 169,200   |
| <b>JANUARY FY2002 APPROVED BCPs (Through 2/19/02)</b>                |        |        |        |         |         |         |         |         |         |         |         |         |                 |           |
| 4 RC01/05 BCP-22035 Additional Plumes @ F Area/Defer 19 tons         |        |        |        |         | 13      |         |         |         |         |         |         |         |                 | 13        |
| 5 Subtotal Approved Scope Changes                                    |        |        |        |         | 13      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0               | 13        |
| <b>FY2002 PENDING BCPs</b>   |        |        |        |         |         |         |         |         |         |         |         |         |                 |           |
| 6 ALL* BCP-22051 Re-baseline Based on Final Funding Guidance         |        |        |        |         | (1,795) | (1,795) | (1,795) | (1,795) | (1,795) | (1,795) | (1,795) | (1,795) |                 | (14,360)  |
| 7 CP01 BCP-22053 Accelerate Structural Steel Removal @ 233-S         |        |        |        |         |         |         |         |         | 100     | 100     | 100     | 100     |                 | 400       |
| 8 CP01 BCP-22054 200 Area Asbestos Abatement Acceleration            |        |        |        |         |         | 130     | 130     | 130     | 10      |         |         |         |                 | 400       |
| 9 CP01 BCP-22029 Accelerate 200-ST-1 and 200-SW-2 RI/FS Work Plans   |        |        |        |         | 33      | 40      | 63      | 86      | 51      | 39      | 28      | 13      | 10              | 363       |
| 10 ALL BCP-22008 Waste Management Phase III Process Improvements     |        |        |        |         | 31      | 31      | 31      | 31      | 31      | 31      | 32      | 32      |                 | 250       |
| 11 ALL Pending Scope Additions, Deletions, Etc.                      |        |        |        |         | (13)    | (13)    | (13)    | (13)    | (13)    | (13)    | (13)    | (13)    |                 | (104)     |
| 12 Subtotal Approved BCPs + Pending BCPs                             |        |        |        |         | (1,718) | (1,594) | (1,571) | (1,548) | (1,603) | (1,625) | (1,635) | (1,650) | 10              | (13,038)  |
| <b>Summary of EACs</b>   |        |        |        |         |         |         |         |         |         |         |         |         |                 |           |
| 13 Current Monthly EAC + January FY2002 Approved BCPs & Pending BCPs | 10,237 | 12,391 | 11,786 | 13,451  | 14,716  | 16,678  | 12,683  | 12,023  | 13,867  | 10,918  | 11,310  | 15,816  |                 | -         |
| 14 Cumulative EAC + January FY2002 Approved BCPs & Pending BCPs      | 10,237 | 22,628 | 34,414 | 47,865  | 62,581  | 79,259  | 91,942  | 103,965 | 117,832 | 128,750 | 140,060 | 155,876 | 390             | 156,162   |

\*The "Anticipated Funding" value is consistent with January workscope/EAC. On January 22, funding guidance representing a \$14,360K reduction was received from RL. The funding reduction is primarily related to workscope transitioning to Fluor Hanford on June 30. A re-baseline effort is underway and will be reflected in the February financial status, as will the final FY02 funding guidance.

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**ISSUES (REGULATORY/EXTERNAL/DOE):**

See individual Outcome sections.

**KEY INTEGRATION ACTIVITIES:**

None identified at this time.

**UPCOMING PLANNED KEY EVENTS:**

**River Corridor Restoration:**

Tri-Party Agreement Milestone M-16-00F, Establish Date for Completion of All 100 Area Remedial Actions (due December 31, 2001) was completed as scheduled. (Tri-Parties reached tentative agreement on the River Corridor negotiations on December 31, 2001. Proposed change packages are undergoing a public comment review period. A milestone completion letter will be transmitted to the regulators upon change package approval which is expected by April 30, 2002.)

Tri-Party Agreement Milestone M-93-12, Issue 105-DR Disposition Competitive Procurement Package, due February 28, 2002. (This milestone is being proposed for deletion in the draft River Corridor change package.)

**Central Plateau Transition:**

The tentative agreement for the Central Plateau (200 Area) negotiations (M-13, M-15, M-16, M-20 milestones) has been completed and approved by the Tri-Parties. Proposed change packages will undergo a public comment review period. Final approval of proposed changes is expected by June 5, 2002.

# Section B - River Corridor Restoration

*RC01 - 100 Area River Corridor Cleanup*

*RC02 - 300 Area Cleanup*

*RC05 - River Corridor Waste Management*



Cutting of 60" Diameter Pipe at 100 F Area



F Reactor South Wall Removal



I 16-N-I Crib and Trench Demolition and Cleanup



Data as of month-end January

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**SECTION B – RIVER CORRIDOR RESTORATION**

**Data as of month-end January**

**ACCOMPLISHMENTS:**

**100 Area Cleanup (RC01):**

Plume excavation continued on pipelines 3 and 4 in the 100 B/C Area, completing 11,793 metric tons (13,000 tons) of the estimated 13,608 metric tons (15,000 tons). Clean overburden removal activities also continued on pipelines 16, 17, 18, and 21. Pipe shearing and loadout activities progressed on pipelines 16, 17, 20, and 42. Two concrete thrust blocks were also broken up on pipelines 16 and 17. Verification (confirmation) sampling was completed at the three outfall structures (116-B-7, 132-B-6, and 132-C-2).

In the 100 F Area, excavation activities continued at the 126-F-1 Ash Pit. A section of the ash pit [2,700 bank cubic meters (3,531 cubic yards)] scheduled for excavation and disposal at the ERDF was removed and stockpiled as overburden (in-process monitoring indicated it was uncontaminated). This could result in a waste minimization of 5,897 metric tons (6,500 tons). Closeout sampling of the stockpile will be performed when excavation of the ash pit waste site is complete. Excavation activities at the 100-F-2 Strontium Garden were completed. A cleanup verification package (CVP) for the UPR-100-F-2 Basin Leak waste was transmitted to RL for regulator review.

In the 100 N Area, plume excavation activities at the 116-N-3 Crib were completed. Confirmation sampling activities were delayed at the 116-N-3 Crib, Pipeline, and Bypass due to additional plumes and isolated contamination identified by the LARADS surveys. Confirmation sampling is expected to begin in February. Demolition and processing activities continued at the 116-N-1 Trench along with 116-N-3 plume removal. Excavation and loadout activities at the 116-N-1 Trench resumed the end of January. The dig roads and shielding berms around the 116-N-1 Trench were completed. The shielding berm has proven to be a very effective as-low-as-reasonably-achievable (ALARA) practice and has resulted in a significant reduction from the planned dose to-date for the equipment operators.

At D Reactor, demolition activities resumed on January 21 after repairs to the heavy equipment were completed.

A readiness review briefing was held with Project and subcontractor management prior to initiating DR Reactor SSE work. All documentation was completed to conduct demolition activities, including the demolition plan. The subcontractor was given Notice to Proceed with demolition activities, and full-scale demolition began on January 29.

LARADS surveys identified another SNF element in the first of four new hot spots recently located in the F Reactor FSB. The element was reading 54 R on contact. The element is being stored in the FSB holding container pending transfer to K Basin. This brings the total number of fuel elements/partial elements found in the F Reactor FSB to 11 elements. All four hot spots were also removed on January 17.

The F Reactor FSB Sampling and Analysis Plan (SAP) Addendum was transmitted to RL. Regulator comments are due by the end of February, but are expected in early to mid-February.

At H Reactor, demolition activities were initiated in the control room/lunch room areas (Area 3) on January 16. As of January 31, demolition was approximately 70 percent complete.

Transport of water from the H Reactor FSB transfer pits to the holding tanks continued. To date, approximately 268,764 liters (71,000 gallons) of liquid (35 percent of the total estimated volume in the FSB) has been sent to the Effluent Treatment Facility (ETF).

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**ACCOMPLISHMENTS continued:**

In the 100 Area, the three groundwater pump and treat systems (100-HR-3, 100-KR-4, and 100-NR-2) operated above the planned 90% availability levels in January, processing approximately 91.6 million liters of groundwater and removing approximately 5.83 kilograms of chromium and 0.01 curie of strontium. Since system inception, these three pump and treat systems have processed over 3 billion liters of groundwater, removing approximately 282 kilograms of chromium and 1.15 curies of strontium.

The 100-KR-4 pump and treat upgrade injection well was completed, and installation of the extraction well is in progress. The subcontractor was mobilized to perform system upgrades at the 100-HR-3 and 100-KR-4 groundwater pump and treat units as well.

Installation of the FY02 In Situ Redox Manipulation (ISRM) Phase III barrier wells is progressing. A total of 17 wells are planned for installation. The mitigation drilling Request for Proposal (RFP) was also issued.

100 Area River Corridor S&M activities that were performed in January to ensure inactive facility integrity and safety included completion of the Radiation Area Remedial Action (RARA) FY01 annual report, replacement of the electrical breaker at B Reactor, issuance of Draft A of the B Reactor Hazards Mitigation RAWP for RL/regulator review, and issuance of the public B Reactor Hazards Mitigation Action Memorandum.

**300 Area Cleanup (RC02):**

On January 23, a contract was awarded for the remediation of the 618-4 and 618-5 Burial Grounds. A pre-construction meeting was held with the remediation subcontractor on January 31. This meeting provided an opportunity to meet the subcontractor team and convey ERC expectations for performance of remediation work in the 300 Area. Mobilization will begin in the 300 Area once the preliminary activity hazards analysis for specific mobilization activities has been approved.

The last two tasks associated with the 618-10 and 618-11 Burial Grounds engineering study were completed on January 24. These tasks included 1) reevaluate the approach and costs to remove the pipe units and caissons, and 2) prepare a schedule that incorporates new draft Tri-Party Agreement milestones to complete remediation by 2018.

The SAP for the 300 Area uranium leach/Kd study, Rev. 2, was approved by the regulators on January 22. The SAP revision documents the changes to optimize FY02 laboratory testing based on a technical peer review of the FY01 preliminary laboratory results.

**River Corridor Waste Management (RC05):**

During January, ERDF received 49,854 metric tons (54,955 tons) of contaminated waste, for a total of 182,468 metric tons (201,137 tons) received to-date in FY02. A total of 3,043,095 metric tons (3,354,438 tons) have been disposed in ERDF since operations began in July 1996. ERDF Disposal personnel have worked 69 months without a lost-time accident, and the ERDF Transportation team has driven 9,307,747 kilometers (5,783,566 miles) without an at-fault vehicle accident.

Disposal of wastes from the F Reactor FSB commenced, utilizing special procedures for discharging containers at the zero-foot elevation of ERDF.

The Idaho National Engineering and Environmental Laboratory (INEEL) management team visited ERDF to observe and discuss subcontracting strategies and operating procedures in preparation for the construction and operation of their on-site CERCLA disposal facility. Information gathered from these visits is expected to result in considerable savings in construction and operation costs.

The 233-S waste package (Box 39) that was exhumed from ERDF, due to suspect characterization data, has been repackaged into a metal burial box and is ready for transport to the LLBG for permanent disposal.

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**MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS):**

| <b>TPA Milestone</b> | <b>Description</b>   | <b>Due Date</b> | <b>(F)/(A) Date</b>   |
|----------------------|--|-----------------|-----------------------|
| M-16-00F*            | Establish Date for Completion of AI 100 Area Remedial Actions  | 12/31/01        | 12/31/01 (A)          |
| M-16-27B             | Complete 100-HR-3 Phase II, ISRM Barrier Emplacement (Planning, Well Installation, and Barrier Emplacement)  | 12/31/01        | 11/20/01 (A)          |
| M-93-12*             | Issue 105-DR Disposition Competitive Procurement Package for Ascertaining the Most Effective and Efficient Approach to FEIS ROD Selected Alternative Implementation (....)   | 2/28/02         | Proposed for deletion |
| M-16-26B             | Complete Remediation and Backfill of 51 Liquid Waste Sites in the 100-BC-1, 100-BC-2, 100-DR-1, 100-DR-2, and 100-HR-1 Operable Units and Process Effluent Pipelines in the 100-DR-1, 100-DR-2, and 100-HR-1 OUs. Complete Revegetation of 36 Liquid Waste Sites in the 100-BC-1, 100-DR-1, 100-DR-2, and 100-HR-1 OUs as Defined in RDR/RAWP for the 100 Area | 3/31/02         | 12/11/02 (A)          |
| M16-41B              | Submit Closeout Verification Package for JA Jones 1 and 600-23 Waste Sites for EPA Approval  | 3/31/02         | 11/30/01 (A)          |
| M-16-03A*            | Establish Date for Completion of 300 Area Remedial Actions   | 6/30/02         | 4/30/02 (F)           |
| M-16-03G             | Establish an Environmental Restoration Disposal Facility (ERDF) Staging Area that is Ready to Receive Drummed Waste from the 618-4 Burial Ground in Accordance with an ERDF Record of Decision Amendment   | 9/30/02         | 3/11/02 (F)           |
| M-16-27C**           | Complete 100-HR-3 Phase III, ISRM Barrier Emplacement (Planning, Well Installation, and Barrier Emplacement)   | 9/30/02         | 6/30/03 (F)           |
| M-16-41C             | Complete Backfill and Regrading of JA Jones 1 and 600-23. Revegetation will occur during the following planting season   | TBD             | 12/14/01 (A)          |

\*Tri-Parties reached tentative agreement on the River Corridor negotiations on December 31, 2001.

Proposed change packages are undergoing a public comment review period. Final approval of proposed changes is expected by April 30, 2002.

\*\* A meeting was held with Ecology to consider effects of project transitioning (June) and delay in mitigation borehole soil sampling program prior to officially submitting an Explanation of Significant Difference (ESD) and change request. Ecology agreed to extend the completion date to June 30, 2003. A change request will be prepared.

**PERFORMANCE OBJECTIVES:**

RL has not formally transmitted final FY02 PIs to BHI.

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**PERFORMANCE MEASURES/METRICS:**

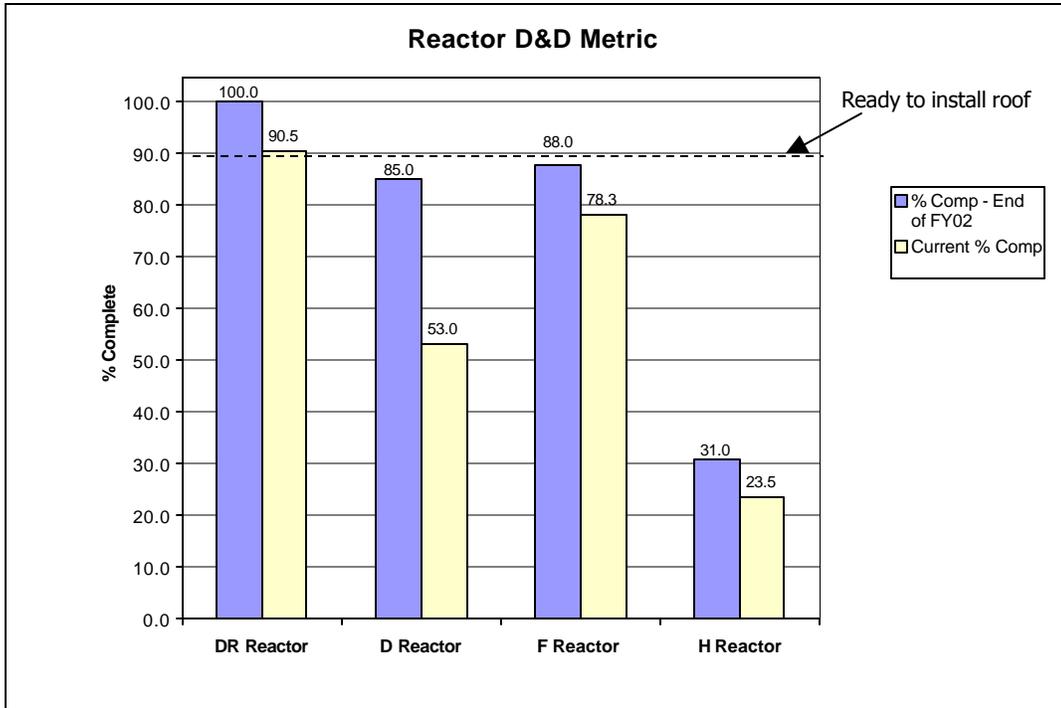
**FY02 Performance Measures Summary:**

| <b>PBS</b>   | <b>Description</b>                 | <b>FY02<br/>Mgmt<br/>Commit</b> | <b>Current<br/>Baseline<br/>Due Date</b> | <b>Forecast (F)<br/>Actual (A)<br/>Date</b> |
|--------------|------------------------------------|---------------------------------|--|---|
| RC01         | Complete Excavation – 100-F-2      | X                               | 11/30/01                                 | 1/26/02 (A)                                 |
| RC01         | Complete Excavation – 100-F-15     | X                               | 5/1/02                                   | 12/7/01 (A)                                 |
| RC01         | Complete Excavation – 100-F-19     | X                               | 8/12/02                                  | 8/12/02 (F)                                 |
| RC01         | Complete Excavation – 100-F-35     | X                               | Deferred                                 | Deferred                                    |
| RC01         | Complete Excavation – 116-F-1      | X                               | Deferred                                 | Deferred                                    |
| RC01         | Complete Excavation – 116-F-2      | X                               | 10/12/01                                 | TBD (F)                                     |
| RC01         | Complete Excavation – 116-F-3      | X                               | Deferred                                 | Deferred                                    |
| RC01         | Complete Excavation – 116-F-6      | X                               | Deferred                                 | Deferred                                    |
| RC01         | Complete Excavation – 116-F-10     | X                               | Deferred                                 | Deferred                                    |
| RC01         | Complete Excavation – 116-F-11     | X                               | Deferred                                 | Deferred                                    |
| RC01         | Complete Excavation – 116-N-1      | X                               | Deferred                                 | Deferred                                    |
| RC01         | Complete Excavation – UPR-100-N-31 | X                               | Deferred                                 | Deferred                                    |
| RC01         | Complete Excavation – 126-F-1      |                                 | 6/5/02                                   | 5/31/02 (F)                                 |
| RC01         | Complete Excavation - 116-F-14     |                                 | 11/30/01                                 | 12/13/01 (A)                                |
| RC01         | Complete Excavation - 116-F-9      |                                 | 11/26/01                                 | TBD (F)                                     |
| RC01         | Complete Excavation - 1607-F2      |                                 | 7/30/02                                  | 7/11/02 (F)                                 |
| RC01         | Complete Excavation – 116-N-3      |                                 | 1/3/02                                   | 2/5/02 (F)                                  |
| RC02         | Complete Excavation – 618-4        | X                               | 8/15/02                                  | 8/15/02 (F)                                 |
| <b>Total</b> |                                    | <b>13*</b>                      | <b>10</b>                                | <b>7 (F)<br/>3 (A)</b>                      |

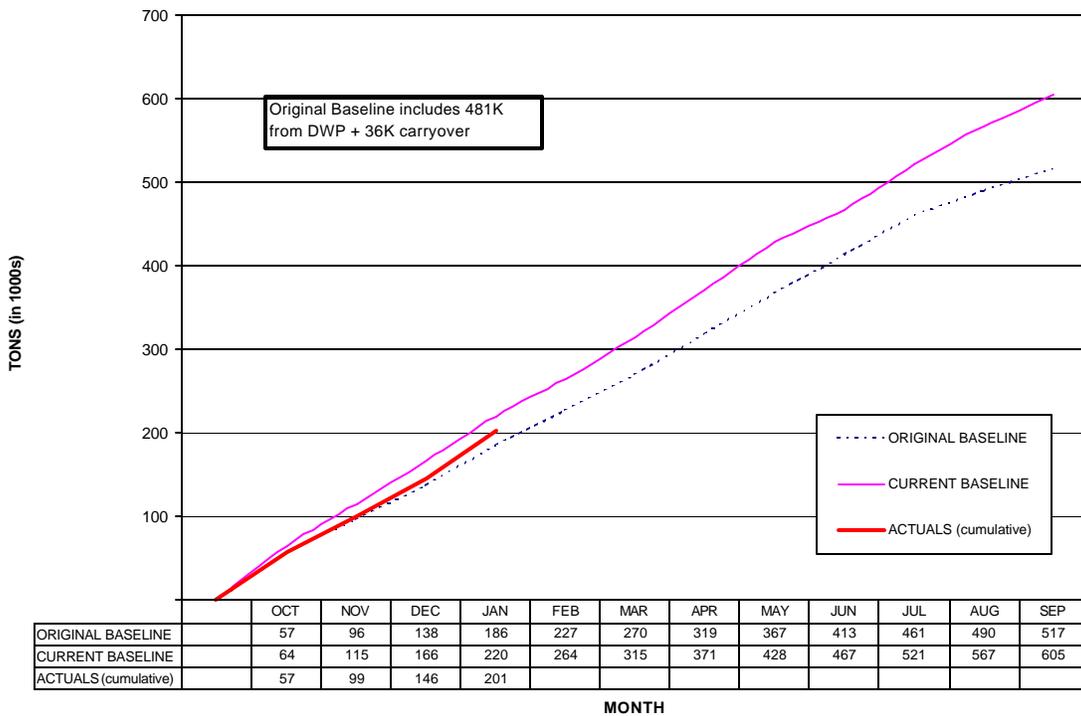
\*IPABS currently reporting 12 (change request pending).

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## PERFORMANCE MEASURES/METRICS:



**Remedial Action and Waste Disposal Project  
Cumulative Tons to ERDF**



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**STRETCH AND SUPERSTRETCH GOALS:**

RL has not formally transmitted final FY02 goals to BHI.

**OUTCOME STATUS (COST/SCHEDULE):**

**Schedule:**

| River Corridor Restoration              | BCWS          | BCWP          | Variance       |
|---|---------------|---------------|----------------|
|   | \$K           | \$K           | \$K            |
| RC01<br>100 Area River Corridor Cleanup | 26,093        | 21,442        | (4,651)        |
| RC02<br>300 Area Cleanup                | 2,944         | 1,792         | (1,152)        |
| RC05<br>River Corridor Waste Management | 8,738         | 8,289         | (449)          |
| <b>TOTAL River Corridor Restoration</b> | <b>37,775</b> | <b>31,523</b> | <b>(6,252)</b> |

**PBS-RC01 – 100 Area River Corridor Cleanup**

Schedule Variance = **(\$4651K); (17.8%)** [Last Month: (\$4192K); (21.1%)]

**Cause:** Reactor ISS excavator did not arrive in December as planned.

**Resolution:** Not a critical path activity. Delivery of excavator expected in February.

**Cause:** Demolition of DR Reactor SSE roof behind schedule due to delays in subcontractor key document submittals.

**Resolution:** Key documents completed, and demolition initiated the end of January. Subcontract is being modified to extend completion date of DR Reactor roof.

**Cause:** Delay at D Reactor due to excavation equipment out of operation for 32 working days in December/January.

**Resolution:** Recovery plan implemented in conjunction with baseline change proposal (BCP) that extends completion date for delays beyond contractor control. Revised schedule proposes a 32-day extension.

**Cause:** F Reactor FSB demolition and loadout activities took more time than planned due to increased radiation dose rates.

**Resolution:** Recovery schedule implemented. Schedule recovery expected in April.

**Cause:** System upgrade delays at 100-KR-4 and 100-HR-3 groundwater pump and treat units due to change in performance approach from construction forces to subcontract. Also, CERCLA well drilling started later than planned and not all resin purchased has been received.

**Resolution:** Baseline is being revised to incorporate new subcontract approach with full recovery expected.

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**OUTCOME STATUS (COST/SCHEDULE) continued:**

**Cause:** Delay in field preparation impacted ISRM drilling start in early December. Change in drilling methodology necessitated additional requirements for subcontract bid specifications causing delay of mitigation sampling.

**Resolution:** Drilling subcontractor initiated work on December 18. Mitigation sampling delayed until February. No impact to construction at this time.

**Cause:** Soil sampling delays due to increased contamination plumes in 100 B/C Area, and still awaiting several subcontractor drawings.

**Resolution:** Corrective action for sampling variance is being evaluated; BCP prepared to defer a portion of plume-related delayed activity.

**Cause:** Weather, container issues, and plumes delayed 100 N Area excavation.

**Resolution:** Schedule recovery expected over next seven months. Confirmation sampling at 116-N-1 deferred due to plumes.

**PBS-RC02 – 300 Area Cleanup**

Schedule Variance = **(\$1152K); (39.1%)** [Last Month: (\$482K); (24.3%)]

**Cause:** 300-FF-1 behind schedule due to awaiting comments on CVPs.

**Resolution:** Per regulator request, CVPs will be completed after ongoing Kd study impacts can be incorporated.

**Cause:** 618-4/5 burial ground contract award/mobilization delayed due to awaiting FY02 funding guidance.

**Resolution:** Contract awarded; BCP in progress to realign target schedule to reflect contract award delay.

**PBS-RC05 – River Corridor Waste Management**

Schedule Variance = **(\$449K); (5.1%)** [Last Month: (\$401K); (6.0%)]

**Cause:** Inclement weather delayed ERDF operations.

**Resolution:** Full schedule recovery expected.

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**OUTCOME STATUS (COST/SCHEDULE) continued:**

**Cost:**

| River Corridor Restoration              | FY02 EAC       | BCWP          | ACWP          | Variance     |
|---|----------------|---------------|---------------|--------------|
|   | \$K            | \$K           | \$K           | \$K          |
| RC01<br>100 Area River Corridor Cleanup | 74,162         | 21,442        | 20,684        | 758          |
| RC02<br>300 Area Cleanup                | 9,909          | 1,792         | 1,638         | 154          |
| RC05<br>River Corridor Waste Management | 25,956         | 8,289         | 7,866         | 423          |
| <b>TOTAL River Corridor Restoration</b> | <b>110,027</b> | <b>31,523</b> | <b>30,188</b> | <b>1,335</b> |

**PBS-RC01 – 100 Area River Corridor Cleanup**

Cost Variance = \$758K; 3.5% [Last Month: \$1251K; 8.0%]

**Cause:** Less hazardous material discovered at D Reactor than planned, offset by excessive equipment repairs.

**Resolution:** Overrun reflected in EAC.

**Cause:** Underrun due to consolidating two B Reactor hazards mitigation regulatory documents.

**Resolution:** Underrun trended and reflected in EAC.

**Cause:** Labor costs at 100 F and 100 B/C Areas lower than planned.

**Resolution:** Current 100 B/C underruns expected to be offset by overruns from increased pipeline trench contamination.

**Cause:** Performance fee adjustments due to transition scope reduction.

**Resolution:** BCP will be issued when final FY02 fee is determined.

**PBS-RC02 – 300 Area Cleanup**

Cost Variance = \$154K; 8.6% [Last Month: \$249K; 16.6%]

**Cause:** 618-10/11 burial ground engineering study required less labor than planned.

**Resolution:** 618-10/11 underrun has been reflected in EAC.

**PBS-RC05 – River Corridor Waste Management**

Cost Variance = \$423K; 5.1% [Last Month: \$459K; 7.3%]

**Cause:** Planned overtime and subcontract costs not incurred and fewer waste shipments.

**Resolution:** Overtime and subcontract costs expected to increase in spring/summer months to recover schedule.

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**ISSUES (REGULATORY/EXTERNAL/DOE):**

**Decontamination and Decommissioning (D&D) Worker Turnover:** 16 out of 17 Reactor ISS D&D staff have transferred through the Labor Assets Management Program (LAMP) process since the beginning of FY01.

**Status:** The remaining experienced worker knowledge base continues to be lost. The project is continually rearranging staff for more experienced personnel to support critical work (F Basin).

**100 N Area:** The RCRA permit and the Record of Decision (ROD) for the 100-NR-1 TSD sites state that Certification of Closure will be achieved approximately three years after commencement of remedial actions (July 2003). The extent of plumes excavated from the 116-N-3 site and the anticipated plumes identified at the 116-N-1 site indicate that Certification of Closure will not be completed until FY04.

**Status:** Preliminary discussions have already begun with the regulators regarding the need for a modification to the RCRA permit schedule.

**INTEGRATION ACTIVITIES:**

None identified at this time.

# Section C - Central Plateau Transition

CP01 - 200 Area Remediation



NPO Obtaining Chemical Material Identification Prior to Packaging



Removing L-2 Heat Exchanger at 233-S

Data as of month-end January

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## **SECTION C – CENTRAL PLATEAU TRANSITION**

**Data as of month-end January**

### **ACCOMPLISHMENTS:**

#### **200 Area Remediation (CP01):**

Central Plateau remediation and groundwater monitoring activities that were performed in January included:

- Completed well drilling to a total depth of 87.6 meters (287.5 feet) at PFP in support of the carbon tetrachloride investigation.
- In the 200 Area, both groundwater pump and treat systems (200-UP-1 and 200-ZP-1) operated above the planned 90% availability levels in January, processing approximately 42.4 million liters of groundwater. Since system inception, these two pump and treat systems have processed approximately 2.3 billion liters of groundwater. Approximately 127 kilograms of carbon tetrachloride were removed by 200-ZP-1 in January. Approximately 6,217 kilograms of carbon tetrachloride have been removed by 200-ZP-1 to date. Approximately 546 million liters of groundwater have been transported to the ETF for processing since 200-UP-1 began operation. 343 million liters were previously processed prior to using ETF.
- Completed 200-UP-1 system upgrades for the second extraction well tie-in.

January decommissioning activities that were accomplished in the highly contaminated 233-S Plutonium Concentration Facility included:

- Completed scaffold installation for access to vessels L-2 and L-8.
- Continued scaffolding installation for vessel L-15.
- Removed 103 meters (339 feet) of pipe, associated hangers, and flat steel from the process hood.
- Removed 3 meters (10 feet) of vessel and the lower raschig rings from vessel L-2.
- Sealed 34 waste drums for shipment and banded 8 burial boxes for ERDF disposal.
- Assayed 10 drums and 22 waste packages. Received 19 nondestructive assay (NDA) final drum data packages.

Central Plateau S&M activities that were performed in January to ensure inactive facility integrity and safety included:

- Completed the Central Plateau herbicide/pesticide bare ground spraying.
- Completed the RARA FY01 annual report.
- Issued an Unreviewed Safety Question (USQ) for the B Plant filter changeout.
- Completed an evaluation that determined inadequacies in the current PUREX Safety Basis document. Surveillance of contamination indicates a continuing trend upward that will exceed the analyzed levels as shown in the Safety Basis document.

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**MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS):**

| <b>TPA Milestone</b> | <b>Description</b>   | <b>Due Date</b> | <b>(F)/(A) Date</b> |
|----------------------|--|-----------------|---------------------|
| M-13-26              | Submit Plutonium/Organic-Rich Process Waste Group (200-PW-1) Work Plan   | 12/31/01        | 12/26/01 (A)        |
| M-13-00L             | Submit 3 200 NPL RI/FS (RFI/CMS) Work Plans  | 12/31/01        | 12/26/01 (A)        |
| M-15-40A             | Complete U Pond/Z Ditches Cooling Water Group Field Work Through Sample Collection and Analysis  | 9/30/02         | 6/30/02 (F)         |
| M-15-42B             | Submit 200-TW-2 OU Draft A Remedial Investigation Report to Ecology  | 9/30/02         | 9/30/02 (F)         |
| M-15-41B             | Submit 200-TW-1 OU Draft A Remedial Investigation Report to EPA  | 10/30/02        | 10/30/02 (F)        |
| M-13-00M             | Submit 3 200 NPL RI/FS (RFI/CMS) Work Plans  | 12/31/02        | 12/31/02 (F)        |
| M-20-39              | Submit 216-S-10 Pond and Ditch Closure/Post Closure Plan to Ecology in Coordination with the Work Plan for the Chemical Sewer Group  | 2/28/03         | 2/28/03 (F)         |
| M-15-38A             | Submit Draft A Gable Mountain Pond/B Pond and Ditch Cooling Water Group Feasibility Study and 216-B-3 Pond System RCRA TSD Unit Closure Plan and Submit Draft A Gable Mountain Pond/B Pond and Ditch Cooling Water Group Proposed Plan/Proposed RCRA Permit Modification | 3/31/03         | 3/31/03 (F)         |

**PERFORMANCE OBJECTIVES:**

| <b>PI</b> | <b>Task</b>   | <b>Status</b>   |
|-----------|---|---|
| 233-S*    | <ul style="list-style-type: none"> <li>• 8 vessels by 6/30/02</li> <li>• 7 additional vessels by 6/30/02 (Stretch)</li> </ul> | Vessel removal is expected to be completed ahead of schedule. |



\*Multi-year PI developed in FY01. RL has not formally transmitted final FY02 PIs to BHI.

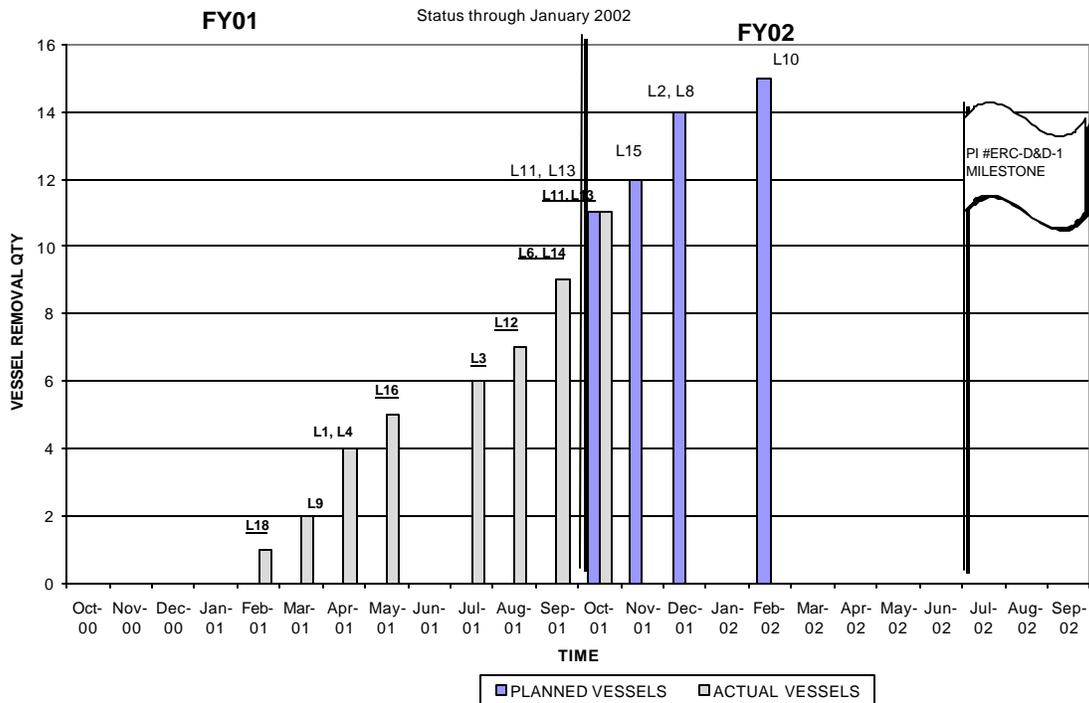
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**PERFORMANCE MEASURES/METRICS:**

ERC identified two technologies for Central Plateau Transition to be deployed during FY02.

| Technology Deployment                     | PBS  | Planned Date | (F)/(A) Date |
|---|------|--------------|--------------|
| Passive Neutron Detector                  | CP01 | 3/31/02      | 3/31/02 (F)  |
| Small-Diameter Geophysical Logging System | CP01 | 3/31/02      | 3/31/02 (F)  |

**VESSEL REMOVAL SCHEDULE**



**STRETCH AND SUPERSTRETCH GOALS:**

RL has not formally transmitted final FY02 goals to BHI.

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**OUTCOME STATUS (COST/SCHEDULE):**

**Schedule:**

| Central Plateau Transition              | BCWS          | BCWP         | Variance       |
|---|---------------|--------------|----------------|
|   | \$K           | \$K          | \$K            |
| CP01 200 Area Remediation               | 11,293        | 9,858        | (1,435)        |
| <b>TOTAL Central Plateau Transition</b> | <b>11,293</b> | <b>9,858</b> | <b>(1,435)</b> |

**PBS-CP01 – 200 Area Remediation**

Schedule Variance = **(\$1435K); (12.7%)** [Last Month: (\$1022K); (12.0%)]

**Cause:** PFP well drilling behind schedule due to off-center drilling at original site.

**Resolution:** Drilling relocated to alternate site, and expected to complete one month late.

**Cause:** 200-CS-1 test pit excavation put on hold due to unavailability of regulated excavator.

**Resolution:** Scope deferred into FY03 as part of GW/VZ Project rebaselining.

**Cause:** Hexone interim stabilization activities behind schedule due to regulator issue resolution and associated delay in reaching alternative regulator selection decision.

**Resolution:** Hexone tank stabilization alternative approved by regulators; resolution of final compliance issues expected in February. Recovery schedule will be implemented.

**Cause:** Process hood vessel waste disposal activities at 233-S facility D&D project behind schedule due to NDA issues requiring new subcontract placement.

**Resolution:** New NDA subcontract signed and work commenced. First waste shipment to Central Waste Complex (CWC) scheduled for March.

**Cost:**

| Central Plateau Transition              | FY02 EAC      | BCWP         | ACWP         | Variance   |
|---|---------------|--------------|--------------|------------|
|   | \$K           | \$K          | \$K          | \$K        |
| CP01 200 Area Remediation               | 34,072        | 9,858        | 9,670        | 188        |
| <b>TOTAL Central Plateau Transition</b> | <b>34,072</b> | <b>9,858</b> | <b>9,670</b> | <b>188</b> |

**PBS-CP01 – 200 Area Remediation**

Cost Variance = **\$188K; 1.9%** [Last Month: \$506K; 6.7%]

**Cause:** D&D at 233-S facility performed with fewer craft resources.

**Resolution:** Underrun reflected in EAC.

**Cause:** RARA material costs not yet accrued.

**Resolution:** Will monitor variance.

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**OUTCOME STATUS (COST/SCHEDULE) continued:**

**Cause:** Preparation of 200-LW-1 and 200-MW-1 work plans in parallel resulted in shared resources and technical data underruns.

**Resolution:** Trend initiated.

**Cause:** 200-CS-1 test pit pre-job planning effort less than planned.

**Resolution:** Trend initiated.

**ISSUES (REGULATORY/EXTERNAL/DOE):**

**Tri-Party Agreement M-13-00x and M-20-xx Milestones:** Tri-Party Agreement Milestones M-13-00X require submittal of 3-4 work plans per year, such that the RI/FS's for the past practices waste sites will be completed by December 31, 2005. Tri-Party Agreement Milestones M-20-XX require the completion of RCRA closure plans by February 28, 2004.

**Status:** The tentative agreement for the Central Plateau (200 Area) negotiations (M-13, M-15, M-16, M-20 milestones) has been completed and approved by the Tri-Parties. Proposed change packages will undergo a public comment review period. Final approval of proposed changes is expected by June 5, 2002. Issue closed.

**Standard Waste Box (SWB):** The existing SWB Safety Analysis Report for Packaging (SARP) has not been revised in approximately nine years and no revisions are planned. Multiple Hanford Site contractors are procuring SWB containers to a drawing revision more recent than that listed in the SARP. Lack of an up-to-date SARP may preclude shipment of TRU waste to CWC.

**Status:** It has been determined the SWB SARP will not be included in the Hanford Site-wide Transportation Safety Document (TSD). A work order was prepared to obtain a DOE approved Package Specific Safety Document (PSSD) by March 15, or revision to the existing SWB SARP. The revision to the SARP has begun.

**INTEGRATION ACTIVITIES:**

None identified at this time.

# Section D - Site Integration & Infrastructure

SS03 - Groundwater Management & Monitoring

SS04 - Groundwater/Vadose Zone Integration

Phase III ISRM  
Barrier Well Installation



Cable Tool Drilling  
at the 241-TX  
Tank Farm

Data as of month-end January

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**SECTION D – SITE INTEGRATION & INFRASTRUCTURE**

**Data as of month-end January**

**ACCOMPLISHMENTS:**

**Groundwater Management and Monitoring (SS03):**

The Liquid Effluent Retention Facility (LERF) Groundwater Evaluation Plan was submitted to RL for transmittal to the Washington State Department of Ecology (Ecology).

**Groundwater/Vadose Zone Integration (SS04):**

The revised semi-annual Congressional report was submitted to DOE (RL and HQ) for review.

The 3D groundwater model modifications were completed, which concluded Characterization of Systems (COS) support to SAC Rev. 0 for the system re-run.

The new SAC processors and analysis workstations that will be used to perform assessments were received in January. These components were assembled and are being tested. The backup tape drives and hard disks for data storage have not yet arrived. Testing and operating of the system will proceed with borrowed equipment. Use of this system will greatly reduce the time required to perform calculations for probabilistic assessments.

A workshop was held to update the existing technical elements in the S&T Roadmap. The workshop participants included other national laboratories, Hanford Site contractors, RL, regulators, Tribal Nations, and stakeholders.

**MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS):**

| <b>TPA Milestone</b> | <b>Description</b>  | <b>Due Date</b> | <b>(F)/(A) Date</b> |
|----------------------|---|-----------------|---------------------|
| M-24-53              | Install Two (2) Additional Wells at SST WMA TX-TY   | 12/31/01        | 11/8/01 (A)         |
| M-24-54              | Install One (1) Additional Well at SST WMA T  | 12/31/01        | 10/18/01 (A)        |
| M-24-55              | Install Two (2) Additional Wells at SST WMA S-SX  | 12/31/01        | 11/8/01 (A)         |
| M-24-00M             | Install RCRA Groundwater Monitoring Wells at Rate of Up to 50 in Calendar Year 2001 if Required | 12/31/01        | 11/8/01 (A)         |
| M-24-00N             | Install RCRA Groundwater Monitoring Wells at Rate of Up to 50 in Calendar Year 2002 if Required | 12/31/02        | 12/31/02 (F)        |

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**PERFORMANCE OBJECTIVES:**

RL has not formally transmitted final FY02 PIs to BHI.

**PERFORMANCE MEASURES/METRICS:**

ERC identified one technology for Site Integration and Infrastructure to be deployed during FY02.

| Technology Deployment | PBS  | Planned Date | (F)/(A) Date |
|-----------------------|------|--------------|--------------|
| Advanced Tensiometer  | SS04 | 3/31/02      | 3/31/02 (F)  |

**STRETCH AND SUPERSTRETCH GOALS:**

RL has not formally transmitted final FY02 goals to BHI.

**OUTCOME STATUS (COST/SCHEDULE):**

Schedule:

| Site Integration & Infrastructure                  | BCWS          | BCWP         | Variance       |
|--|---------------|--------------|----------------|
|  | \$K           | \$K          | \$K            |
| SS03 – Groundwater Management & Monitoring         | 5,948         | 5,754        | (194)          |
| SS04 - Groundwater/Vadose Zone Integration         | 4,181         | 3,004        | (1,177)        |
| <b>TOTAL Site Integration &amp; Infrastructure</b> | <b>10,129</b> | <b>8,758</b> | <b>(1,371)</b> |

**PBS-SS03 – Groundwater Management and Monitoring**

Schedule Variance = (\$194K); (3.3%) [Last Month: (\$159K); (3.4%)]

**Cause:** RL and regulator burial ground boundary discussions extended beyond planned completion date delaying monitoring network design.

**Resolution:** LLBG boundaries have been agreed upon and final status plan will be prepared during next two quarters.

**PBS-SS04 – Groundwater/Vadose Zone Integration**

Schedule Variance = (\$1177K); (28.2%) [Last Month: (\$875K); (27.9%)]

**Cause:** S&T Roadmap workshops rescheduled to avoid other conflicts. Other S&T scope delayed due to staff availability and awaiting FY02 funding guidance.

**Resolution:** First workshop held in January and remaining workshop will occur in February. Other affected S&T scope addressed in GW/VZ Project rebaselining.

**Cause:** Late approval for purchase of SAC computer system.

**Resolution:** Delivery of computer system expected in February.

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**OUTCOME STATUS (COST/SCHEDULE) continued:**

**Cost:**

| <b>Site Integration &amp; Infrastructure</b>          | <b>FY02 EAC</b> | <b>BCWP</b>  | <b>ACWP</b>  | <b>Variance</b> |
|---|-----------------|--------------|--------------|-----------------|
|   | <b>\$K</b>      | <b>\$K</b>   | <b>\$K</b>   | <b>\$K</b>      |
| <b>SS03 – Groundwater Management &amp; Monitoring</b> | 18,215          | 5,754        | 5,332        | 422             |
| <b>SS04 - Groundwater/Vadose Zone Integration</b>     | 6,818           | 3,004        | 2,667        | 337             |
| <b>TOTAL Site Integration &amp; Infrastructure</b>    | <b>25,033</b>   | <b>8,758</b> | <b>7,999</b> | <b>759</b>      |

**PBS-SS03 – Groundwater Management and Monitoring**

Cost Variance = \$422K; 7.3% [Last Month: \$355K; 7.9%]

**Cause:** Underruns due to lower CY01 RCRA groundwater monitoring well installation subcontract costs, and cancellation of some offsite groundwater monitoring analyses.

**Resolution:** Underrun reflected in EAC.

**PBS-SS04 – Groundwater/Vadose Zone Integration**

Cost Variance = \$337K; 11.2% [Last Month: \$531K; 23.5%]

**Cause:** Underrun due to reduced effort for preparation of Congressional report and reduced HAB support.

**Resolution:** Underruns reflected in EAC.

**ISSUES (REGULATORY/EXTERNAL/DOE):**

None identified at this time.

**INTEGRATION ACTIVITIES:**

None identified at this time.