

# Environmental Management Performance Report

April 2003



E0305031.1



**Department of Energy**  
Richland Operations Office



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

Data as of month-end April

ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
APRIL 2003

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## INTRODUCTION

The monthly Environmental Restoration (ER) Environmental Management Performance Report (EMPR) consists of two sections: Section A - Executive Summary, and Section B – River Corridor Restoration. All data are current as of April 30, 2003, unless otherwise noted.

**Section A – Executive Summary.** The Executive Summary begins with a description of notable accomplishments for the current reporting month 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. Fiscal year 2003 (FY03) performance objectives and status are provided. 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 Environmental Restoration Contractor (ERC) monthly activity information and performance status for the three Project Baseline Summaries (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.

PBS SC01 - Near-Term Stewardship is structured within the Site Stewardship outcome. Due to the minimal FY03 workscope identified for this PBS, SC01 performance data is 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



*Removal of Clean Overburden from 66-inch Diameter Pipeline from C Reactor*



*Test Pit Excavation at North Process Pond in 300 Area*



*SSE Construction at F Reactor*



*Spent Fuel Piece Recovery in H Reactor FSB*

Data as of month-end April

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## SECTION A – EXECUTIVE SUMMARY

Data as of month-end April

### NOTABLE ACCOMPLISHMENTS

#### River Corridor Restoration:

Significant effort continues toward achieving the goal to complete 32 waste sites by June 30. As of the end of April, closure documentation has been submitted for five waste sites. A total of 16 waste sites have been excavated through April.

A Request for Proposal (RFP) for the remedial design to address elevated radiological dose and airborne levels in the 116-N-1 Crib was issued to six pre-qualified bidders on April 14.

On April 22, a RFP was issued for construction and construction quality assurance for Environmental Restoration Disposal Facility (ERDF) Cells 5 and 6.

During April, 85,651 metric tons (94,415 tons) of contaminated waste were disposed in ERDF, for a total of 359,970 metric tons (396,801 tons) disposed to date in FY03. A total of 3,823,613 metric tons (4,214,834 tons) of waste have been disposed in ERDF since operations began in July 1996.

1720-HA Arsenal demolition and waste disposal activities were completed on April 22. The 118-C-4 Horizontal Rod Storage Cave demolition is complete, and loadout is expected to be completed in May. 117-DR filter building demolition is progressing and is expected to be completed in June.

The 100 N Area ancillary facilities Removal Action Work Plan (RAWP) was revised to incorporate comments received from the Washington State Department of Ecology (Ecology).

Demolition of the existing F Reactor roof and walls is more than 95% complete. Construction of the new roof is currently one month ahead of schedule.

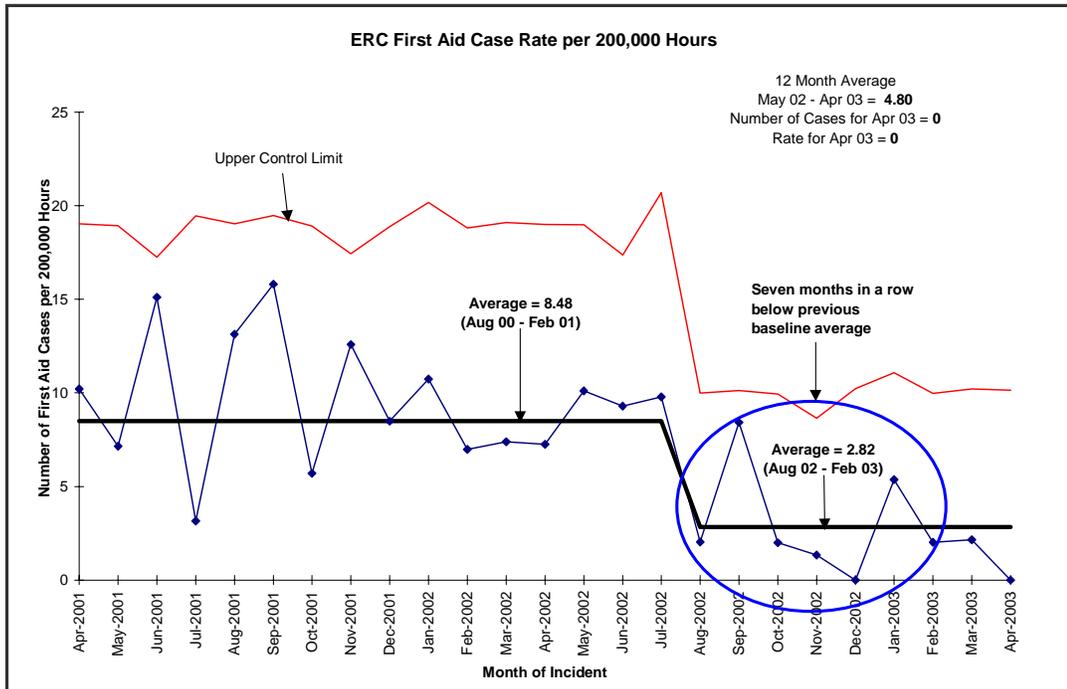
Three spent fuel elements have been found to date in the H Reactor fuel storage basin (FSB) removal site.

Asbestos abatement of the 109-N facility roof-mounted ventilation duct was completed in April.

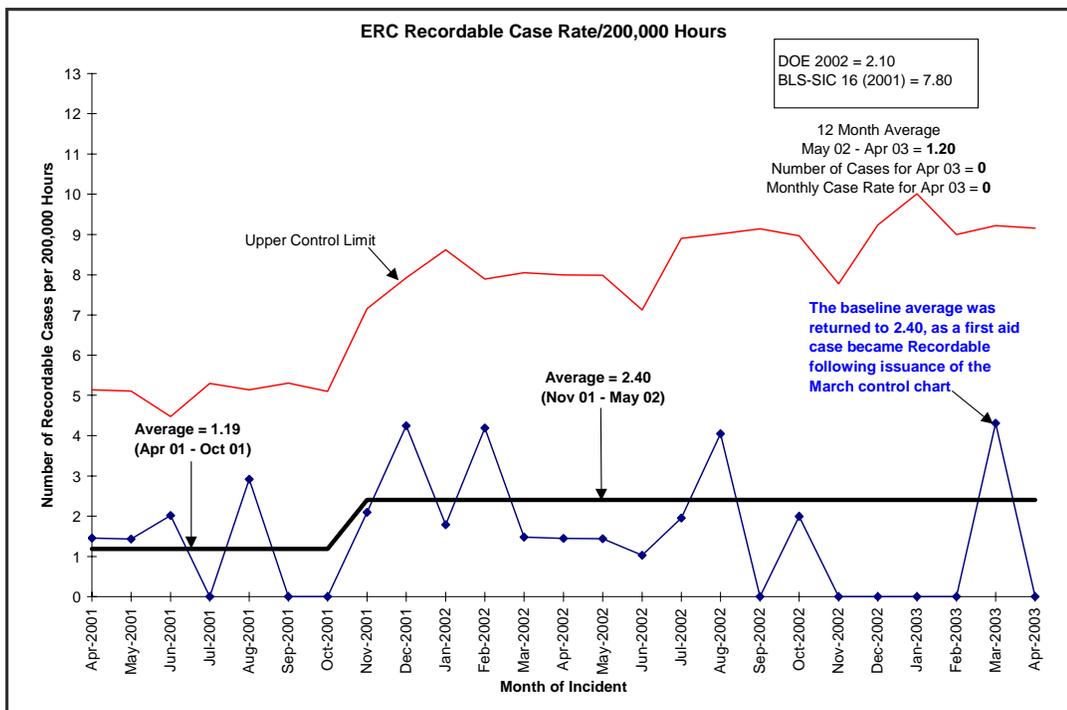
Funding was received to support execution of ER activities through the current contract completion date of June 30, 2003.

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**SAFETY**



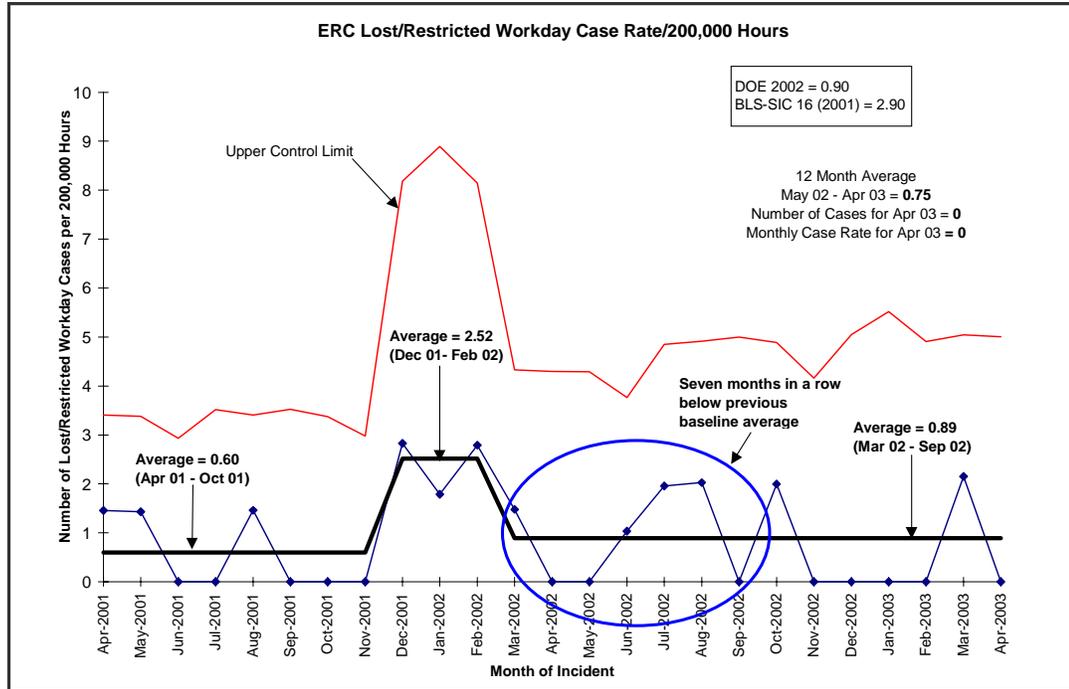
NOTE: This data has been stable since August 2002.



NOTE: The March baseline average of 0.57 was returned to its previous average of 2.40 as a first aid case that occurred in March became Recordable. This reclassified incident interrupted the seven consecutive months of data below the previous baseline average.

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**SAFETY (continued)**



NOTE: This data has been stable since March 2002.

**Safety:**

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

- The Voluntary Protection Program (VPP) application process to obtain DOE VPP Star Status recognition is on hold. Safety improvement opportunities identified in the VPP Safety Improvement Plan are being reviewed for level of effort and safety value to the organization.
- Bechtel Hanford, Inc. (BHI) continues to hold Senior ALARA meetings and Project Safety committee meetings monthly with Labor Stewards.
- The Subcontract Technical Representatives (STRs) performed a review of Contract "Exhibit G", Subcontractor Health and Safety Requirements, to ensure the subcontractor submittals are complete.
- The STRs perform periodic self-assessments for subcontractor compliance to contract requirements.
- BHI continues to hold Incident Review Board meetings to ensure that the ERC has correctly and thoroughly determined the cause of any incidents and identified correctable opportunities. In addition, lessons learned based on these incidents are used to prevent future occurrences.
- All incidents are thoroughly investigated. Emphasis is placed on causes and corrective actions that can be implemented where applicable. Timely discussions take place in safety meetings and plan of the day (POD) meetings. When investigations are complete, the results are sent to the Area Superintendents, Field Superintendents, and Supervisors for review at the PODs.

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**SAFETY (continued)**

- BHI continues to look for trends and consults with Corporate and other Bechtel National, Inc. (BNI) contacts for ways to enhance performance.
- The ERC 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 to safety.
- The Field Support General Superintendent, Subcontract Manager, and Project Safety Manager continue to visit different projects on a regular basis, meet with project team members, and conduct safety walkarounds. Area Superintendents for Decontamination and Decommissioning projects and Surveillance and Maintenance projects are included in these walkarounds. The walkaround participants visit projects other than those for which they are responsible. Information from the walkarounds 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.
- Field Support personnel conduct weekly safety inspections. Findings are entered into a database and tracked to closure. Daily inspections are also performed and logged in the project's daily logbook or daily report.
- The Alliance has revised the Sharing for Success goals to reduce lost time accidents and OSHA recordable rates for FY03.

	FYTD	Current Period (03/17/03- 04/13/03)	Current Period Comments
<b>First Aid</b>	7	0	
<b>OSHA Recordable</b>	3	0	One March first aid became recordable in April
<b>Restricted Workday Case</b>	2	0	
<b>Lost Workday Case</b>	0	0	

**Status:**

- As of April 30, 2003, the ERC had worked approximately 790,000 hours without a lost workday case. The last incident occurred on June 4, 2002 and became lost time on September 4, 2002. Continuous employee involvement is being fostered by the Integrated Environmental Safety and Health Management System (ISMS), VPP, labor alliance programs, e-mail communications, and one-on-one meetings with employees.
- During the period October 1, 2002 through April 30, 2003, the ERC experienced 8 first aid incidents, 2 lost/restricted incidents, and 1 recordable-only incident, which equates to having **95% of our workdays injury free**. During this time period, the ERC experienced a string of 68 consecutive **injury-free** workdays.

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**SAFETY (continued)**

- The ERC continues to work diligently to provide accurate and timely reporting of occurrences, and to conduct followup fact-finding critiques to identify problems and improve safe field operations.
- The ERC Safety Expo team completed an interactive safety booth emphasizing safety 24 hours a day, 7 days per week at home, at work, and at play. The theme for the booth is "Without Safety, It's a Jungle Out There."
- The ERC will be sending 12 employees to the annual VPPA Region X Conference May 7-8 in Pasco, Washington. The conference offers numerous safety-related training sessions, vendor exhibits, and an opportunity for attendees to interact with employees from other VPP sites. These employees were selected by the VPP Steering Committee for their involvement in the VPP process.

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

The National Historic Preservation Act (NHPA) Section 106, "Cultural Resources Review for the Establishment of Interpretive Trails on Bateman Island," was completed and sent to the City of Richland, Parks and Recreation Department for transmittal to the Walla Walla District Corps of Engineers. The review documents previous archeological work conducted on Bateman Island and provides recommendations for actions that should be taken to minimize or avoid impacts to known cultural resources in the establishment of the trail system. This review is part of the river shore enhancement projects sponsored by BHI.

The Waste Treatment Plant Project requested an ecological review for expanding Borrow Pit 30 to provide aggregate for construction. They want to expand west into approximately five acres of mature old-growth sagebrush. As expected, the review revealed the presence of several birds including sage sparrows, loggerhead shrikes, meadowlarks, and white-crowned sparrows. The birds were defending territories, indicating they are nesting nearby. The clearing of the site was put on hold until follow-up review is done in late May. If nesting birds are still present, clearing the sagebrush will be postponed again.

Three maps were revised for the document, "Surplus Reactor Auditable Safety Analysis - BHI-01172."

A meeting was held with the Hanford Fire Department (HFD) to identify a method for transmitting the ERC chemical inventories. This action had previously been completed by Fluor Hanford (FH). However, due to programmatic changes, FH will no longer transmit ERC chemical inventory data. A draft electronic copy of the chemical inventory data was provided to the HFD on April 8. Upon agreement by the HFD, ERC will continue to electronically submit quarterly inventories to the HFD.

BHI conducted an independent assessment of the ERC Employee Concerns Program.

BHI continued toward full implementation of the ISMS Performance Objectives, Measures, and Indicators Process that BHI communicated to RL in document BHI-01550. Data collection continues. New data for both the month of April and FY03 second quarter for all metrics were provided to RL by letter.

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**PROCESS IMPROVEMENTS**

**Six Sigma:**

- Held weekly Core Team member meetings to monitor programmatic developments and identify/validate hard and soft dollar savings for calendar year 2003.
- Held monthly project reviews with RL and BHI upper management reporting on achievements and path forward.
- Continued development of a Top-Down approach for Six Sigma. This effort is flowcharting activities within the ERC from a top-down perspective. Activities during April continued to define methods to set up and operate business and technical department infrastructures. This effort will be completed by early June.
- Held bi-weekly Steering Committee meetings to monitor progress and develop program guidance.

Process Improvement Projects (PIPs) and status include:

- Container Deployment PIP: PIP team recommendations have been completed and are ready to be presented to the Remedial Action and Waste Disposal (RAW) Project Manager. A report summarizing the work to date will be written and entered into PIP Tracker for historical purposes.
- Radiological Survey of ERDF Trucks: The Design Phase of the PIP has been completed. A report summarizing the work to date will be written and entered into PIP Tracker for historical purposes.
- Hanford Waste Burial Ground Operations PIP: The PIP has an approved Business Case. This PIP would require a great deal of regulator involvement. A report summarizing the work to date will be written and entered into PIP Tracker for historical purposes.
- Total Hazard Management PIP: This PIP has a completed Business Case. Baseline data indicated opportunity for improvement in 50% of the occurrence cases experienced in 2002 and 2003 to date. A report summarizing the work to date will be written and entered into PIP Tracker for historical purposes.
- Delegation of Authority PIP: This PIP has an approved Business Case. A report summarizing the work to date will be written and entered into PIP Tracker for historical purposes.

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**MAJOR COMMITMENTS**

**Tri-Party Agreement Milestones:** Two (2) Tri-Party Agreement milestones were planned for completion during FY03.

<b>Total Tri-Party Agreement Milestones Due in FY03</b>	<b>2</b>
Total Planned through April	0
Total Completed through April	2

<b>Remaining Tri-Party Agreement Milestones to be Completed in FY03</b>	<b>0</b>
Forecast Ahead of Schedule	0
Forecast On Schedule	0

Tri-Party Agreement Milestone M-16-10A, "Initiate Remedial Action in the 100-KR-1 Operable Unit", (due August 1, 2003) was completed on December 11, more than seven months ahead of schedule. Milestone M-93-16, "Complete 105-DR Reactor Interim Safe Storage" (due September 30, 2003), was completed on January 29, eight months ahead of schedule.

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**PERFORMANCE OBJECTIVES**

BHI focus area performance incentives are noted below. Specific River Corridor performance incentives are identified in Section B.

**PIs - October through December 2002:**

PI	Fee Allocation	Task	Status
 <b>Execute Detailed Work Plan</b>	Incentive fee shall not exceed 100%; if SPI is less than 75% at end of contract period, no fee shall be awarded.	Perform to approved DWP through contract period ending 12/31/02 in accordance with the SPI provision.	Through December, the SPI was 1.10, or 10% ahead of schedule. A Notice of Completion was submitted to RL on February 21 for the October through December time frame.
 <b>Safety</b>	Up to 50% of fee available for this PI may be forfeited if failure to satisfactorily meet PI in accordance with applicable requirements.	Protect worker safety and health, public safety and health, and the environment.	No issues or negative findings were identified with regard to the 14 applicable performance failure criteria associated with this performance incentive through December. A Notice of Completion was submitted to RL on March 4 for the October through December time frame.

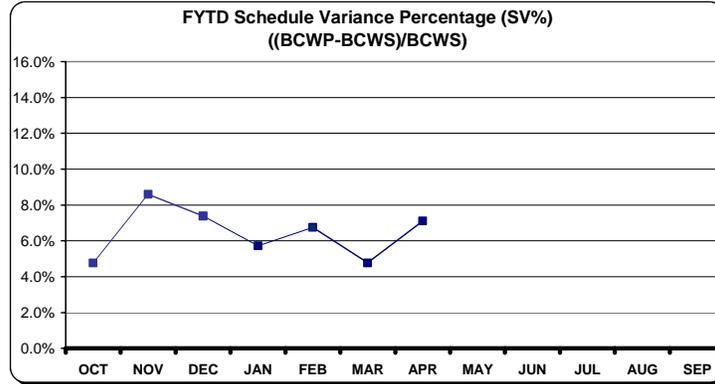
**PI - January through June 2003:**

PI	Fee Allocation	Task	Status
 <b>Safety</b>	Up to 50% of fee available for this PI may be forfeited if failure to satisfactorily meet PI.	Protect worker safety and health, public safety and health, and the environment.	No significant issues or negative findings were identified with regard to the 14 applicable performance failure criteria associated with this performance incentive through April. During the period January 1, 2003 through April 30, 2003, the ERC experienced 7 first aid incidents, 1 lost/restricted incident, and 1 recordable incident, which equates to having 92.5% of our workdays injury free. As of April 30, 2003, the ERC has worked approximately 790,000 hours since the last lost workday incident which occurred on June 4, 2002 and became lost time on September 4, 2002.

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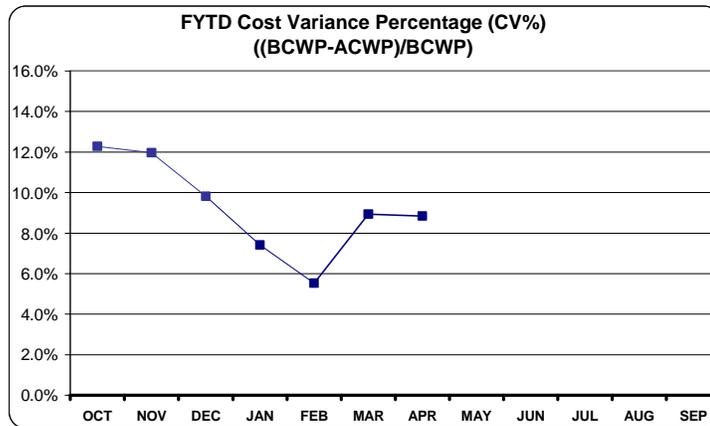
**TOTAL ERC COST/SCHEDULE OVERVIEW**

**FY03 ERC PERFORMANCE SUMMARY  
FYTD APRIL 2003  
(\$K)**



**\*NOTE: ERC current contract completes June 30, 2003.**

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	*JUN	JUL	AUG	SEP
DWP	8,451	8,521	9,154	8,467	8,304	10,768	8,608	8,797	10,797	8,997	10,602	9,997
DWP (Accum)	8,451	16,973	26,127	34,594	42,898	53,666	62,274	71,071	81,868	90,865	101,466	111,463
<b>CURRENT PERIOD</b>												
BCWS	8,898	8,767	10,438	8,556	8,531	10,764	9,164	9,905	11,917	8,809	10,690	9,388
BCWP	9,322	9,863	10,993	8,579	9,484	10,384	11,124					
<b>FISCAL YEAR TO DATE</b>												
BCWS	8,898	17,665	28,103	36,659	45,190	55,955	65,119	75,024	86,941	95,750	106,440	115,828
BCWP	9,322	19,185	30,178	38,757	48,241	58,625	69,749					
SV	424	1,520	2,075	2,098	3,051	2,670	4,630					
SV%	4.8%	8.6%	7.4%	5.7%	6.8%	4.8%	7.1%					



	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	*JUN	JUL	AUG	SEP	EAC
<b>CURRENT PERIOD</b>													
ACWP	8,177	8,713	10,324	8,670	9,689	7,810	10,196						
BCWP	9,322	9,863	10,993	8,579	9,484	10,384	11,124						
<b>FISCAL YEAR TO DATE</b>													
ACWP	8,177	16,890	27,214	35,883	45,572	53,382	63,578						
BCWP	9,322	19,185	30,178	38,757	48,241	58,625	69,749						
CV	1,145	2,295	2,964	2,874	2,669	5,243	6,171						
CV%	12.3%	12.0%	9.8%	7.4%	5.5%	8.9%	8.8%						
EAC (Cumulative)	8,177	16,890	27,214	35,883	45,572	53,382	63,578	74,254	85,453	93,091	101,931	109,593	109,593

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**TOTAL ERC COST/SCHEDULE OVERVIEW (continued)**

**FY03 ERC PBS PERFORMANCE SUMMARY  
FYTD APRIL 2003  
(\$K)**

	FY03 DWP BCWS	CURRENT BCWS	FYTD			FYTD SCHEDULE VARIANCE			FYTD COST VARIANCE			EAC
			BCWS	BCWP	ACWP	\$	%	SPI	\$	%	CPI	
RC01	65,900	69,003	38,574	40,305	37,492	1,731	4.5%	1.04	2,813	7.0%	1.08	66,747
RC02	12,608	13,068	7,507	9,403	7,680	1,896	25.3%	1.25	1,723	18.3%	1.22	11,100
RC05	32,855	33,658	19,014	20,017	18,389	1,003	5.3%	1.05	1,628	8.1%	1.09	31,655
<b>RCR-Subtotal</b>	<b>111,363</b>	<b>115,729</b>	<b>65,095</b>	<b>69,725</b>	<b>63,561</b>	<b>4,630</b>	<b>7.1%</b>	<b>1.07</b>	<b>6,164</b>	<b>8.8%</b>	<b>1.10</b>	<b>109,502</b>
SC01	100	99	24	24	17	0	0.0%	1.00	7	29.2%	1.41	
<b>SS-Subtotal</b>	<b>100</b>	<b>99</b>	<b>24</b>	<b>24</b>	<b>17</b>	<b>0</b>	<b>0.0%</b>	<b>1.00</b>	<b>7</b>	<b>29.2%</b>	<b>1.41</b>	<b>91</b>
<b>ERC TOTAL</b>	<b>111,463</b>	<b>115,828</b>	<b>65,119</b>	<b>69,749</b>	<b>63,578</b>	<b>4,630</b>	<b>7.1%</b>	<b>1.07</b>	<b>6,171</b>	<b>8.8%</b>	<b>1.10</b>	<b>109,593</b>

**Schedule Variance Summary:**

Through April, the ER Project is \$4.6M (+7.1%) ahead of schedule. The positive schedule variance is attributed to the acceleration of the 300 Area 618-5 Burial Ground remediation operations, 100 N Area plume excavation and 100 F Area cleanup verification/backfill proceeding ahead of schedule, and related ERDF operations ahead of schedule.

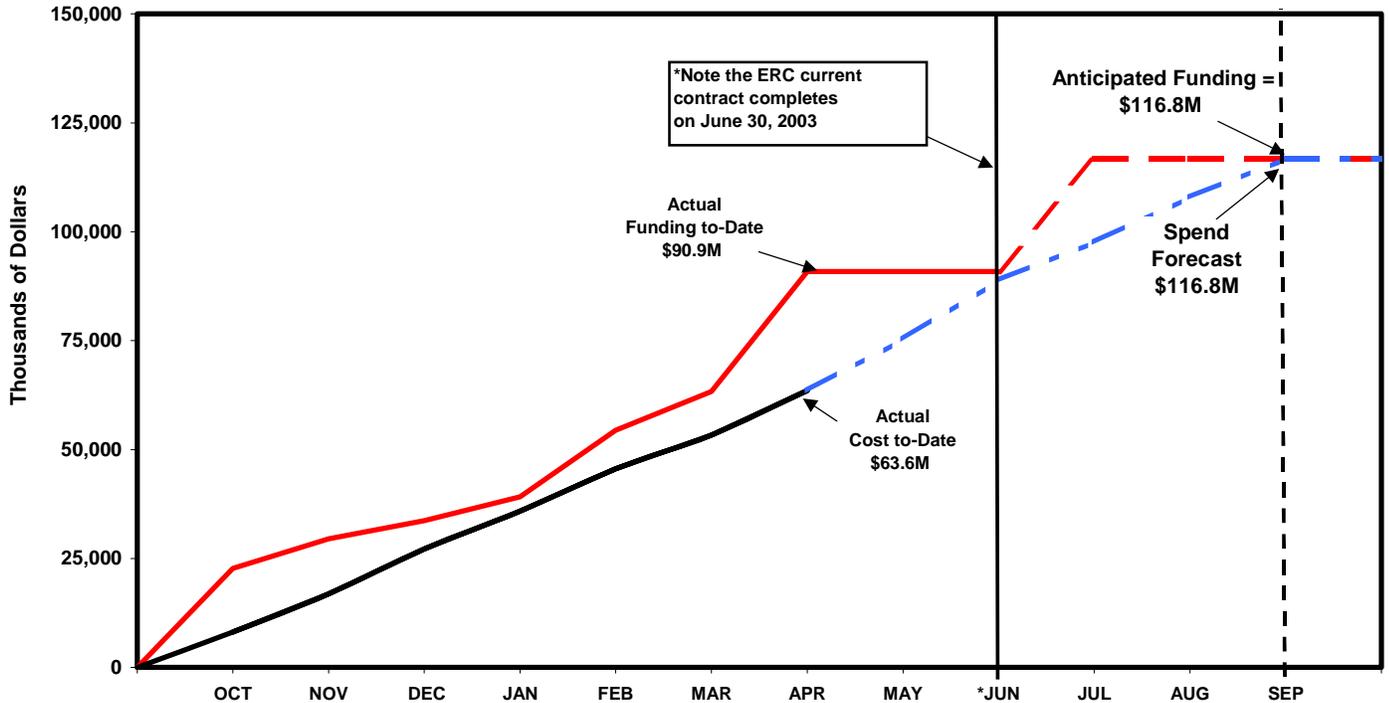
**Cost Variance Summary:**

At the end of April, the ER Project had performed \$69.7M worth of work, at a cost of \$63.6M. This results in a favorable cost variance of \$6.2M (+8.8%). The positive cost variance is attributed to consolidating common 618-4 and 618-5 Burial Ground remediation activities, lower project support costs due to resource sharing for 100 Area remediation, and prior-year rebill accounting adjustments that were realized in March. Underruns are partially offset by additional cost to resolve ISS higher than anticipated radioactive contamination findings.

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**TOTAL ERC COST/SCHEDULE OVERVIEW (continued)**

**FY03 FUNDING VS. FORECAST EXPENDITURES (EAC)**



		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	*JUN	JUL	AUG	SEP	Est. Outyr. ETC	TOTAL
1	<b>FY03 ERC FUNDING</b>	22,717	29,506	33,639	39,169	54,469	63,380	90,867	90,867	90,867	116,809	116,809	116,809		
<b>ACTUAL/EAC ON APPROVED SCOPE</b>															
2	Actual Cost Cumulative Through April	8,176	16,889	27,213	35,883	45,572	53,382	63,578							
3	Current Monthly Actuals/EACs	8,176	8,713	10,324	8,670	9,689	7,810	10,196	10,676	11,199	7,638	8,841	7,626		
4	Cumulative Actuals/EACs on Approved Scope	8,176	16,889	27,213	35,883	45,572	53,382	63,578	74,254	85,453	93,091	101,932	109,557	36	109,593
<b>MAY FY2003 APPROVED BCPs</b>															
5															0
6	Subtotal Approved Scope Changes								0	0	0	0	0		0
<b>MAY FY2003 PENDING/SCOPE CHANGES</b>															
7	RC01 BCP-23049 Fix KW Reactor Roof Leaks									25					25
8	RC01 BCP-23056 Increased Tonnage from F Reactor ISS and N Crib								323	405	230				958
9	RC02 BCP-23X01 618-5 Burial Ground Quantity Reduction - Waste Minimization								(197)	(50)	(174)	(163)			(584)
10	RC02 BCP-23X02 Reduced Tonnage for LDR Lead Soil from 300-FF-2								(120)						(120)
11	RC05 BCP-23053 Accelerate ERDF Cells 5 & 6 Construction & Mobilize Contractor, from FY04										124	300	350		774
12	RC05 BCP-23060 Increased Tonnage from F Reactor ISS and N Crib								14	15	14	14	14		71
13	RC05 BCP-23061 Increased Volumes Requiring Special Treatment at ERDF								213						213
14	ALL BCP-23058 Delete Peer Review from FY03 DWP									(113)					(113)
15	ALL BCP-23X03 Implementation of the River Corridor Contract Transition										454	454	567		1,475
16	ALL BCP-23X04 June 30, 2003 (Last day of Contract)									450	(450)				0
17	ALL BCP-23X05 Post Contract Accruals									635			(635)		0
18	ALL BCP-23X06 Additional Retiree Medical Costs									51	6	6	6		69
19	ALL Pending Scope Additions, Deletions, etc. (Includes Central Plateau Accounting Adjusted Funding Allowance)								889	890	890	890	889		4,448
20	Subtotal Approved BCPs + Pending BCPs								1,122	2,308	1,094	1,501	1,191	0	7,216
21	Current Monthly Actuals/EACs + May FY03 Approved/Pending BCPs	8,176	8,713	10,324	8,670	9,689	7,810	10,196	11,798	13,507	8,732	10,342	8,816	0	
22	Cumulative Actuals/EACs + May FY03 Approved/Pending BCPs	8,176	16,889	27,213	35,883	45,572	53,382	63,578	75,376	88,883	97,615	107,957	116,773	36	116,809

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

See Section B issues.

**KEY INTEGRATION ACTIVITIES**

See Section B key integration activities.

**UPCOMING PLANNED KEY EVENTS**

Transition ER River Corridor workscope.

## SECTION B – RIVER CORRIDOR RESTORATION

Data as of month-end April

### ACCOMPLISHMENTS

#### 100 Area River Corridor Cleanup (RC01):

During April, overburden removal, pipe shearing, demolition, and loadout activities continued on effluent pipelines 25 and 26 (1.7-meter [66-inch] pipelines) from C Reactor. A dirt ramp was constructed over the export water pipeline. This ramp will provide additional protection for the pipe from heavy equipment traffic. Miscellaneous plumes were also excavated around B Reactor.

An independent peer review was conducted for the 100 B/C Pilot Study Ecological Risk Assessment Sampling and Analysis Plan (SAP). The review panel consisted of experts from the Institute of Regulatory Science in the fields of geohydrology, ecological risk assessment, CERCLA site closures, and statistics. RL and the U.S. Environmental Protection Agency (EPA) presented the background and reasons for the study. The 100 B/C Pilot Study project team presented the site-specific remediation background and the technical approach for the study. The peer review panel will submit a final report on their findings and recommendations to RL in the third quarter of FY03.

Backfill was completed for three waste sites in the 100 F Area including the 116-F-6 Trench, 100-UPR-F-2 Spill, and 116-F-2 Trench waste sites. Excavation and sampling were completed for the 100-F-23, -24, and -25 Drywells and the 100-UPR-F-3 Spill waste sites.

Sampling was completed for the 100-K-29 Sandblast waste site, and 100-K-30, -31, -32, and -33 Acid Spill/ Concrete Base Remains waste sites. A total of 130 meters (427 feet) of 1.1-meter (42-inch) diameter pipeline feeding the mile-long trench in the 100 K Area were also removed and shipped to ERDF.

Significant effort continues toward achieving the goal to complete 32 waste sites by June 30. As of the end of April, closure documentation has been submitted for five waste sites. A total of 16 waste sites have been excavated through April.

In the 100 N Area, excavation of plume 9 adjacent to the 116-N-1 Trench was completed. Overburden removal of plume 10 was also completed. A Request for Proposal (RFP) for the remedial design to address elevated radiological dose and airborne levels in the 116-N-1 Crib was issued to six pre-qualified bidders on April 14.

Concrete masonry unit blocks, structural steel, and roof Q-decking were removed in support of the F Reactor safe storage enclosure (SSE) roof installation. The main beams and girders for the northern portion of the new roof were lifted into place in two sections, and final connections were completed. Assembly of the next roof section is scheduled to be lifted into place the week of May 5. Demolition of the existing roof and walls is more than 95% complete. Construction of the new roof is currently one month ahead of schedule.

All known hot spots found in the first survey pass of the H Reactor fuel storage basin (FSB) were evaluated. A total of three spent fuel elements have been found to date. Work resumed in removing lower fill material.

1720-HA Arsenal demolition and waste disposal activities were completed on April 22. The 118-C-4 Horizontal Rod Storage Cave demolition is complete, and loadout is expected to be completed in May. 117-DR filter building demolition is progressing and is expected to be completed in June.

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**ACCOMPLISHMENTS (continued)**

Annual cultural ecological resource reviews were completed for the D, F, and H Reactor buildings and ancillary facilities, along with the 118-C-4 Horizontal Rod Cave and the 1720-HA Arsenal.

The 100 N Area ancillary facilities Removal Action Work Plan (RAWP) was revised to incorporate comments received from Ecology. Ecology will issue a letter requesting RL to address issues related to the new Model Toxics Control Act (MTCA) requirements, but will approve the RAWP prior to resolution of the MTCA issues.

100 Area surveillance and maintenance (S&M) tasks completed during April included:

- Completed asbestos abatement of the 109-N facility roof-mounted ventilation duct.
- Commenced asbestos abatement of the 1304-N emergency dump tank.
- Completed surveillance and calibration of the C-elevator/fission trap bubblers at N Reactor.
- Issued Preliminary Hazard Classifications for the outdoor RARA waste sites as directed by RL.
- Performed beryllium sampling of the B Reactor main breaker. Results were negative.
- Issued RFP for vent duct covering and ventilation upgrade for B Reactor hazards mitigation.

**300 Area Cleanup (RC02):**

Test pit excavation and sampling activities at the North and South Process Ponds were conducted on April 19 and 26. The purpose of the test pits is to obtain vadose zone capillary fringe sediments, uranium-contaminated saturated zone sediments, and groundwater representative of uranium-contaminated plume of highest concentration.

Two documents, the Remedial Design Report/Remedial Action Work Plan for the 300 Area, Rev. 1, Draft A, and the 300 Area Sampling and Analysis Plan, Rev. 1, Draft A, were transmitted to RL, EPA, and the Natural Resource Trustee's Council for concurrent review.

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

On April 22, a RFP was issued for construction and construction quality assurance for ERDF Cells 5 and 6.

Ion exchange modules and empty fuel canisters from the Fluor Hanford (FH) K Basins Spent Nuclear Fuel Project were disposed in ERDF. The canisters are now being shipped in cardboard boxes. This reduces the ERDF void-space filling requirements, which in turn reduces the total waste volume and overall disposal costs. Asbestos waste from the 109-N facility, waste from the FH Groundwater Project, and resins from the Effluent Treatment Facility were also disposed in ERDF during April.

Five concrete pads were prepared as a base for macro-encapsulating lead-alloy bricks from the 300 Area. Placement of lead-alloy bricks was also initiated. Treatment of lead-contaminated soil from the 300 Area continued during April. In addition, a treatability test was performed, and treatment was initiated for cadmium-contaminated soil.

The ERDF Disposal team has worked 84 months (since project inception) without a lost time accident.

During April, 85,651 metric tons (94,415 tons) of contaminated waste were disposed in ERDF, for a total of 359,970 metric tons (396,801 tons) disposed to date in FY03. A total of 3,823,613 metric tons (4,214,834 tons) of waste have been disposed in ERDF since operations began in July 1996.

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

TPA Milestone	Description	Due Date	(F)/(A) Date
M-16-10A	Initiate Remedial Action in the 100-KR-1 Operable Unit	08/01/03	12/11/02 (A)
M-93-16	Complete 105-DR Reactor Interim Safe Storage	09/30/03	01/29/03 (A)
M-16-63*	Submit a Schedule and TPA Milestones to Complete Interim Remedial Actions for the Following 300-FF-2 Waste Sites (300-259, 303-M SA, 303-M UOF, UPR-300-46, URP-300-17, and 618-1) and Confirmatory Sampling of the Following 300-FF-2 Candidate Sites (300-109, 300-110, and 333 ESHWSA)	11/30/03	At Risk*
M-94-01*	Submit a Schedule and TPA Milestones to Complete Disposition of the Following Surplus Facilities: 303M, 332, 333, 334, 334A, 3221, 3222, 3223, 324, 3225, 324, 324B, 327 (River Corridor scope currently maintained by FH)	11/30/03	At Risk*

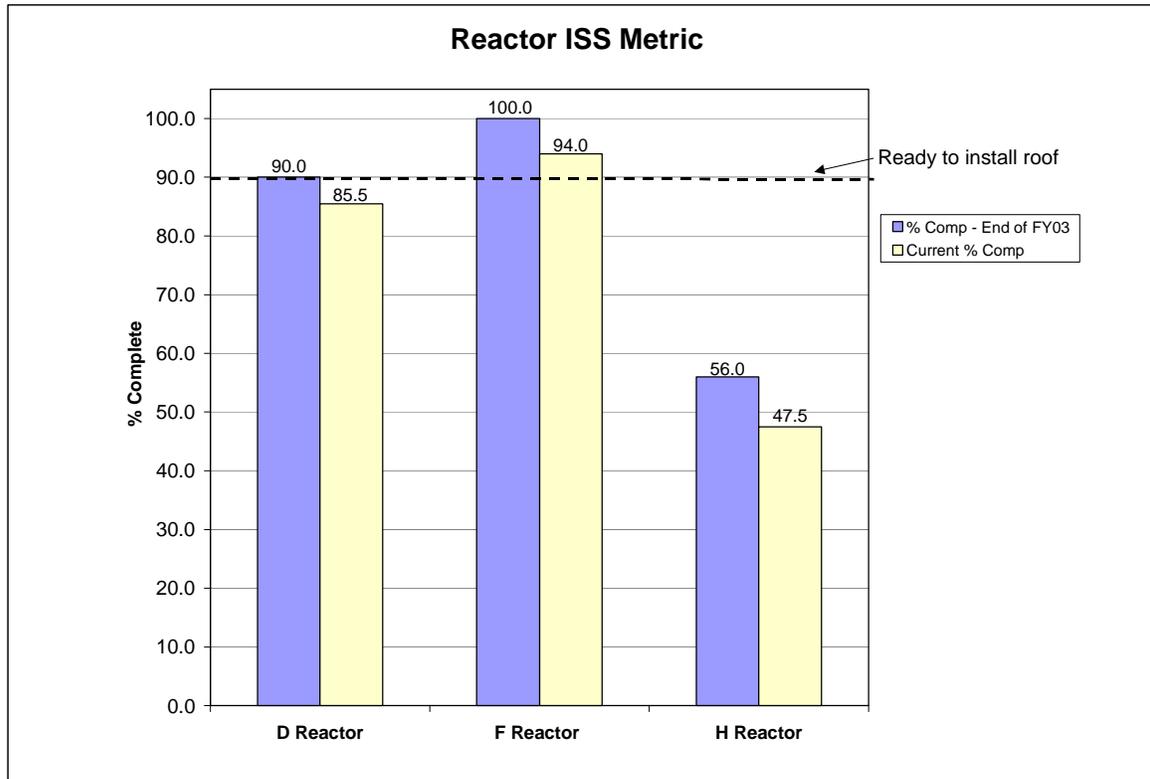
\*Scheduled completion date at risk due to delay in awarding River Corridor contract.

**PERFORMANCE OBJECTIVES**

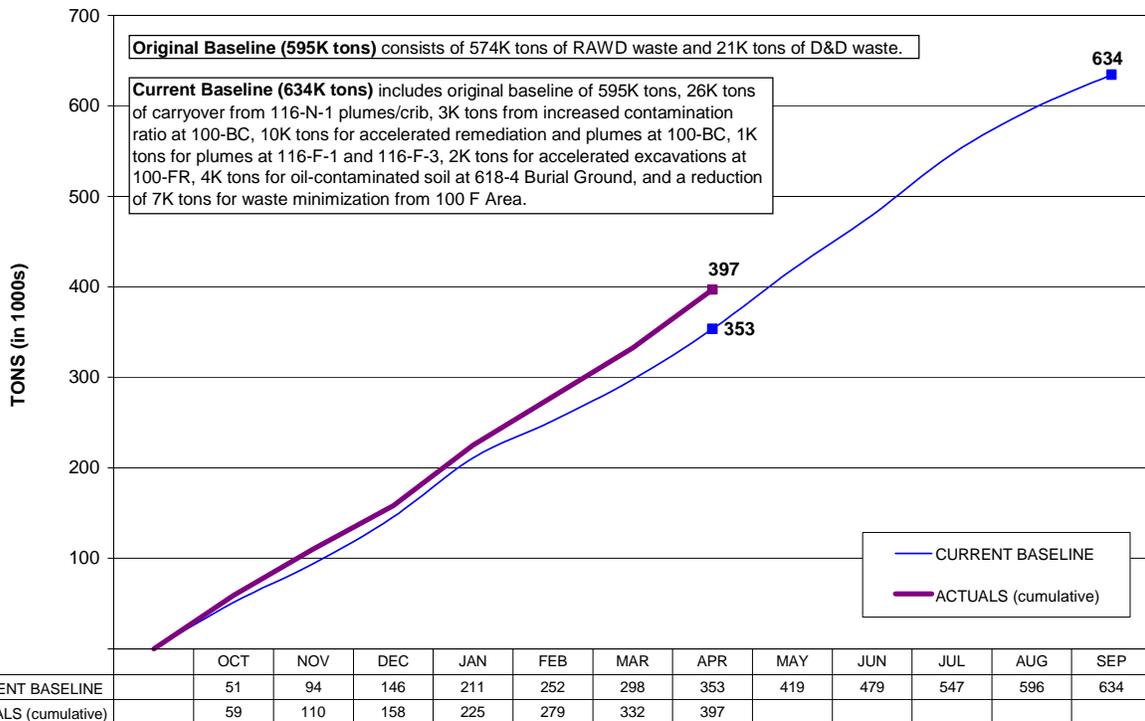
PI	Task
 GREEN	<p>Complete FY02 carryover ISS activities at F Reactor by November 20, 2002. <b>Status:</b> Completed on November 13, 2002. Notice of Completion package transmitted to RL on January 8, 2003. RL completed review and approved payment of full fee on January 30, 2003.</p>
 GREEN	<p>Complete 32 release sites (cleanup verification package [CVP] or waste site reclassification sheet [WRS]) and demolition of 2 facilities. <b>Status:</b> As of April 30, five waste sites have been completed. Two facilities have been demolished; loadout is completed for one facility.</p> <p>Exceed baseline disposal total (457K tons) up to a total of 65.5K additional tons. Complete demolition of a third facility. <b>Status:</b> On schedule for completion by June 30, 2003. Through April, 397K tons have been disposed.</p> <p>Achieve ISS progress in accordance with DWP. <b>Status:</b> Activities are on schedule.</p>

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**PERFORMANCE MEASURES/METRICS**



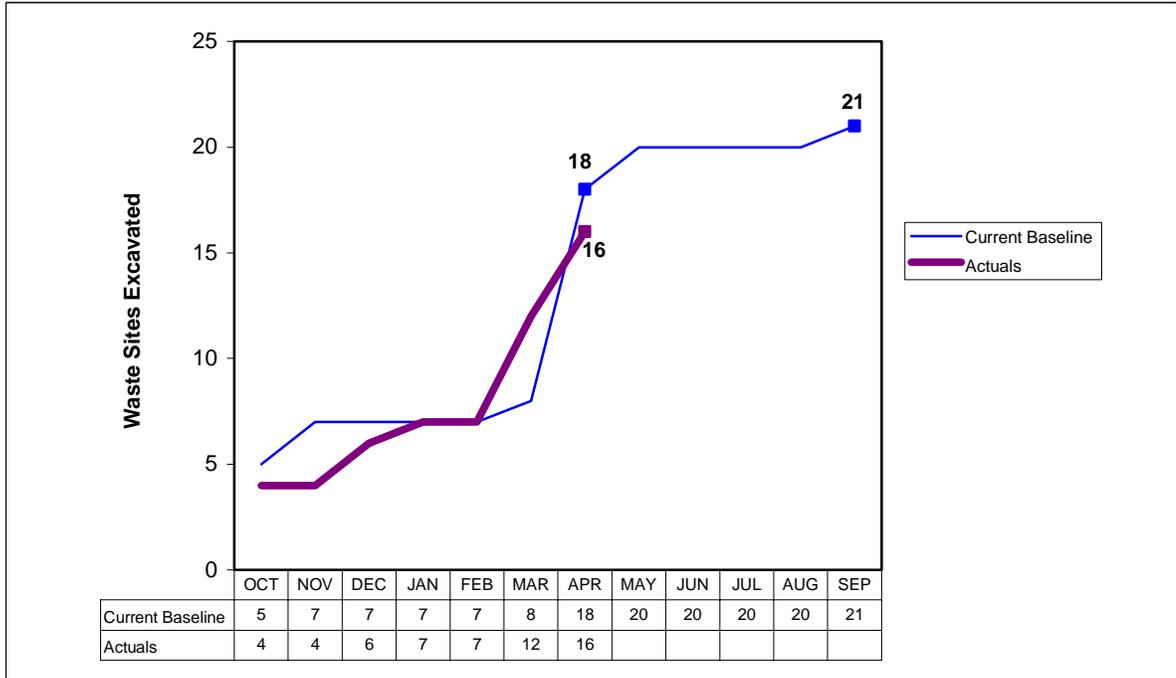
### Remedial Action Metric Cumulative Tons to ERDF



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**PERFORMANCE MEASURES/METRICS (continued)**

**Waste Site Metric**  
Excavations Completed (cumulative)



**Technology Deployments**

Technology Deployment	PBS	Date Deployed	First-Time Deployment
Enhanced Site Characterization System (deployed at 618-5 Burial Ground)	RC02	10/02	No
RF Camera System for Brokk™ (deployed at H Reactor FSB)	RC01	10/02	Yes
IPIX 360-Degree Photography (deployed at C Reactor)	RC01	11/02	Yes
Mobile Access Control (Dolphin platform) (deployed at 100 K Area)	RC01	12/02	Yes
Ultra Lift (deployed at 100 N Area)	RC01	01/03	Yes
ISO-CART (deployed at 190-DR Facility)	RC01	02/03	Yes
ERDF Truck Survey Tool (Dolphin platform) (deployed at 100 B/C remedial action sites)	RC01	02/03	Yes

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**COST/SCHEDULE STATUS**

ERC - SCHEDULE VARIANCE	BCWS	BCWP	Variance
	\$K	\$K	\$K
RC01 - 100 Area River Corridor Cleanup	38,574	40,305	1,731
RC02 - 300 Area Cleanup	7,507	9,403	1,896
RC05 - River Corridor Waste Management	19,014	20,017	1,003
SC01 - Near-Term Stewardship	24	24	0
<b>TOTAL ERC</b>	<b>65,119</b>	<b>69,749</b>	<b>4,630</b>

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

Schedule Variance = **\$1,731K; 4.5%**

**Cause:** 100 N Area plume excavation and 100 F Area cleanup verification package preparation/backfill are ahead of schedule.

**Resolution:** N/A

**Cause:** F Reactor SSE roof enclosure is approximately one month ahead of schedule.

**Resolution:** N/A

**PBS-RC02 – 300 Area Cleanup**

Schedule Variance = **\$1,896K; 25.3%**

**Cause:** 618-5 Burial Ground soil excavation and sampling activities were finished ahead of schedule. Remaining loadout activities are scheduled for completion in May.

**Resolution:** N/A

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

Schedule Variance = **\$1,003K; 5.3%**

**Cause:** LDR lead soil treatment ahead of schedule; waste disposal also ahead of plan by 44K tons due to mild winter weather.

**Resolution:** N/A

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**COST/SCHEDULE STATUS (continued)**

ERC - COST VARIANCE	FY03 EAC	BCWP	ACWP	Variance
	\$K	\$K	\$K	\$K
RC01 - 100 Area River Corridor Cleanup	66,747	40,305	37,492	2,813
RC02 - 300 Area Cleanup	11,100	9,403	7,680	1,723
RC05 - River Corridor Waste Management	31,655	20,017	18,389	1,628
SC01 - Near-Term Stewardship	91	24	17	7
<b>TOTAL ERC</b>	<b>109,593</b>	<b>69,749</b>	<b>63,578</b>	<b>6,171</b>

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

Cost Variance = **\$2,813K; 7.0%**

**Cause:** Lower project support costs due to resource sharing for 100 K, 100 F, and 100 N Area remediation; 100 Area Burial Ground preliminary design efforts less than planned due to utilizing subject matter experts and template documents.

**Resolution:** Underrun reflected in EAC.

**Cause:** More effort than planned to engineer and prepare the D Reactor fuel storage basin for backfill due to side slope contamination.

**Resolution:** Overrun reflected in EAC.

**Cause:** Prior-year provisional rate rebill accounting adjustments were realized in March.

**Resolution:** Underrun reflected in EAC.

**PBS-RC02 – 300 Area Cleanup**

Cost Variance = **\$1,723K; 18.3%**

**Cause:** Efficiencies realized in 618-4 Burial Ground sorting, sampling, and loadout of contaminated soils; consolidation of common 618-4 and 618-5 Burial Ground remediation activities.

**Resolution:** Underrun reflected in EAC.

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

Cost Variance = **\$1,628K; 8.1%**

**Cause:** Subcontract negotiations yielded reduced LDR lead soil treatment costs; uranium oxide preliminary treatment plan was simplified; streamlined design approach for ERDF Cells 5 and 6 construction resulted in lower costs than planned; offset by increased transportation requirements.

**Resolution:** Underrun reflected in EAC.

**Cause:** Prior-year provisional rate rebill accounting adjustments were realized in March.

**Resolution:** Underrun reflected in EAC.

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

- **100 N Area Remediation:** Results of residual radioactivity (RESRAD) modeling performed for the 116-N-1 crib and trench indicate that the site will not attain groundwater remedial action objectives (RAOs) following excavation. The results indicate that the lowest vadose zone layer contributes contaminants at levels above the RAOs.

**Strategy/Status:** Regulators and stakeholders provided input on the proposed Explanation of Significant Difference (ESD) for 116-N-1 site closeout during the Hanford Advisory Board (HAB) River and Plateau Committee meetings held from November 2002 through March 2003. The ESD public comment period started on February 3 and ended on March 31. ESD comments were addressed, and approval of the ESD is expected by the end of May.

- **M-16-63 and M-94-01:** Tri-Party Agreement Milestone M-16-63, "Submit a Schedule and TPA Milestones to Complete Interim Remedial Actions for the Following 300-FF-2 Waste Sites (300-259, 303-M SA, 303-M UOF, UPR-300-46, UPR-300-17, and 618-1) and Confirmatory Sampling of the Following 300-FF-2 Candidate Sites (300-109, 300-110, and 333 ESHWSA)"; and Milestone M-94-01, "Submit a Schedule and TPA Milestones to Complete Disposition of the Following Surplus Facilities: 303M, 332, 333, 334, 334A, 3221, 3222, 3223, 3224, 3225, 324, 324B, 327" (both due November 30, 2003), are at risk due to the delay in awarding the River Corridor contract.

**Strategy/Status:** After the River Corridor contract is awarded, discussions will be held with RL and the regulators to determine potential impacts.

- **Occurrence Reporting DOE Order:** Hanford Site implementation by RL and other Site contractors is proceeding toward a June 30 implementation date of the new occurrence reporting system. ERC has not received direction for implementation. After June 30, the ERC Occurrence Reporting and Processing System will not match the rest of the DOE complex.

**Strategy/Status:** The ERC requested direction from RL and is awaiting further response.

**INTEGRATION ACTIVITIES**

None identified at this time.