

# Environmental Management Performance Report

March 2003



EG004035.1



**Department of Energy**  
Richland Operations Office



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

Data as of month-end March

ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
MARCH 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 March 31, 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



*Lead Alloy Bricks at 618-5 Burial Ground Ready for Loadout to ERDF*



*Backhoe Digging Cleanup Verification Test Trenches at 618-5 Burial Ground*



*SSE Construction at F Reactor*



*Equipment Removed from F Reactor*

Data as of month-end March

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## SECTION A – EXECUTIVE SUMMARY

Data as of month-end March

### NOTABLE ACCOMPLISHMENTS

#### River Corridor Restoration:

Excavation of five waste sites in the 100 B/C Area was completed during March. Characterization of six 100 B/C Area Remaining Sites was also completed.

The 100 Area B/C Pilot Study Data Quality Objective (DQO) Summary Report, Rev. 0, was issued the first week of March. A presentation of the 100 Area B/C Pilot Study was provided to the Hanford Advisory Board River and Plateau Committee. Results of the DQO and the approach to the sampling plan were presented.

Backfill activities were completed for three waste sites in the 100 F Area.

The last contaminated land disposal restricted (LDR) material from the 300 Area 618-4 Burial Ground was transported to the Environmental Restoration Disposal Facility (ERDF) for disposal.

The infiltration test results for the North Process Pond were within the new uranium cleanup goal. No further remediation will be required at this waste site.

The uranium chip/oil-drummed waste treatment plan was issued in March. The preferred treatment technology recommendation is off-site phase separation, incineration of the liquids, and solidification of the solids. The residuals would be returned for ERDF disposal.

Construction was completed on the firewater loop upgrade near the interim waste staging area at ERDF.

The final design package for ERDF cells 5 and 6 expansion was completed in March.

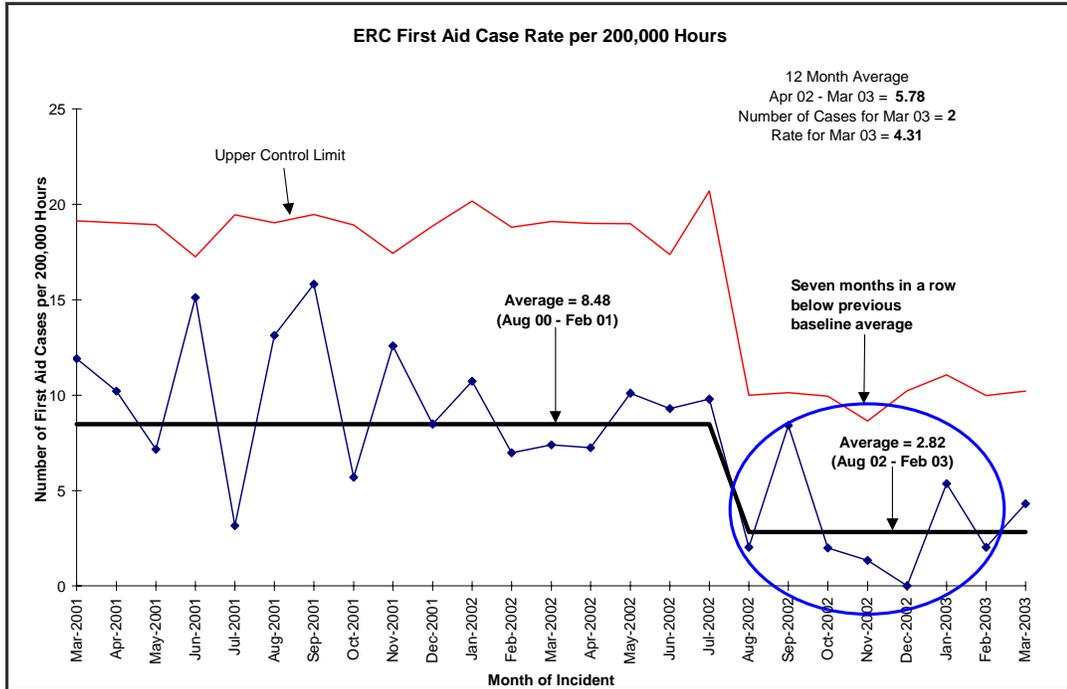
Demolition of the above-grade 117-DR filter building was completed. Surrounding soil was excavated to allow access to the below-grade structure.

All pre-start items for intrusive work in the H Reactor fuel storage basin (FSB) were completed on March 26.

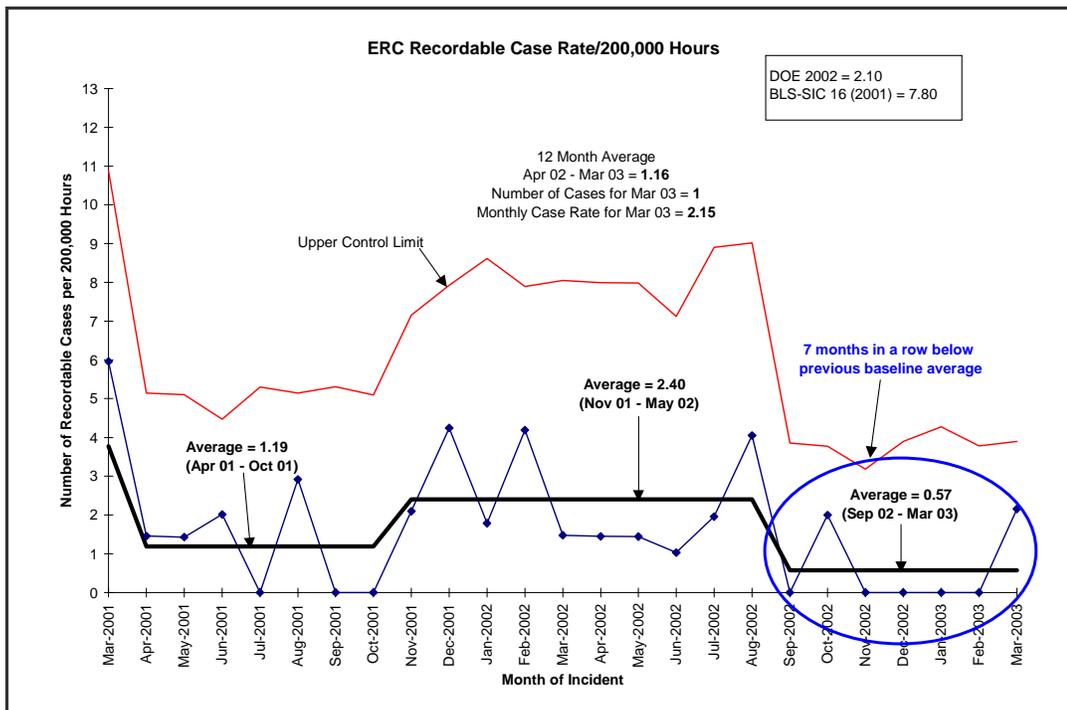
The asbestos abatement field work was initiated at the 109-N facility.

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**SAFETY**



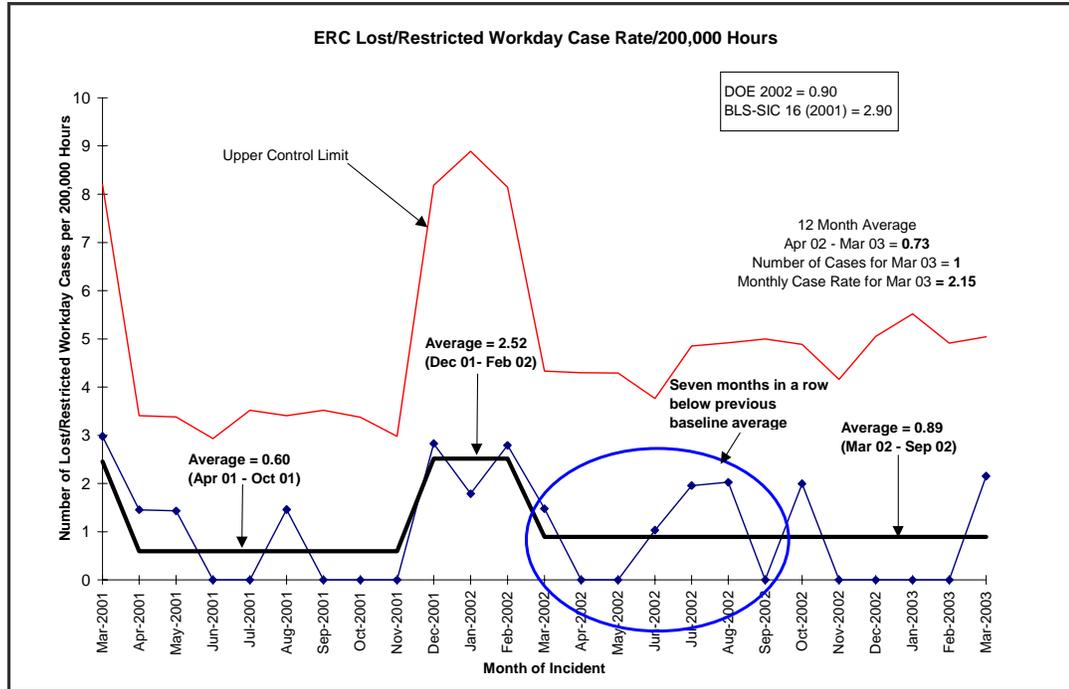
NOTE: This data has been stable since August 2002.



NOTE: The baseline average has been revised from 2.40 to 0.57, based on 7 consecutive months 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:

- Activities continued to obtain U.S. Department of Energy (DOE) Voluntary Protection Program (VPP) Star Status recognition.
- 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 the 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)**

- Bechtel Hanford, Inc. (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.

	<b>FYTD</b>	<b>Current Period (02/17/03- 03/16/03)</b>	<b>Current Period Comments</b>
<b>First Aid</b>	7	2	Strains
<b>OSHA Recordable</b>	2	1	Finger fracture/laceration
<b>Restricted Workday Case</b>	2	1	Same as above "recordable"
<b>Lost Workday Case</b>	0	0	

**Status:**

- As of March 31, 2003, the ERC had worked approximately 690,000 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 March 31, 2003, the ERC experienced 5 first aid incidents, 2 lost/restricted incidents, and 1 recordable incident, which equates to having **96% 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 STRs continue to focus on oversight of subcontractor's safety program implementation and performance.
- The ERC VPP self-assessment report was completed and approved by BHI management and distributed to Project Managers, VPP representatives, and to members of the VPP Leadership Council. The VPP Steering Committee completed the VPP Safety Improvement Plan (SIP) which was reviewed and approved by BHI management. The SIP was distributed in March, and improvement opportunities are being completed. Safety improvement opportunities will continue to be worked to closure and discussed at the VPP Leadership Committee meeting. Work continues on the VPP Star Recognition application.
- 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 committee is preparing a booth display for the upcoming Safety Expo.
- 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.
- The 618-4 and 618-5 Burial Ground remediation project team celebrated 14 consecutive months of working **injury free**.
- The 618-4 and 618-5 Burial Ground remediation project team produced a safety video titled "What Makes Our Site Safe?".

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

Representatives from the Confederated Tribes of the Umatilla Indian Reservation, Nez Perce Tribe, Wanapum, and Yakama Nation met with representatives from DOE Richland Operations Office (RL), the U.S. Environmental Protection Agency (EPA), and BHI on March 20 to continue discussion on how human remains, specifically contaminated human remains, would be safely treated during remediation of liquid waste sites within the 100 K Area. This workshop finalized monitoring requirements for characterization studies at the 116-K-2 Trench as well as actions to be taken should a discovery be made during characterization work. Options for discoveries made during full-scale remedial actions are still being discussed.

CHI Regulatory Support initiated the first phase of *the Emergency Planning and Community Right to Know Act* (EPCRA) Toxic Release Inventory (TRI) Report. This report is prepared to meet the requirements of 40 CFR 372 and is conducted in two phases. A data call was submitted to each of the Projects/Functions that have, or had, reported chemicals in calendar year 2002. The signed certifications are due on April 3. The dates for the report have been accelerated because the Hanford Site is anticipating preparing a Form R Report (the second phase of the TRI Report) for lead (the threshold is now 100 pounds). Once the toxic chemical data have been certified, the data will be transmitted to Fluor Hanford who is responsible for coordinating the TRI Report for the Hanford Site.

Field Support and Safety and Health are in the process of reviewing the BHI hazard identification and control process in a continuous improvement effort. The expected results should enhance safety, streamline the process, reduce cost, and provide enhanced communication of hazards.

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**SAFETY (continued)**

BHI provided a response to RL relative to efforts taken by the ERC to reduce the number of vehicle accidents from 2001 to 2002. The response described how the ERC implemented ISMS principles to reduce vehicle incidents/accidents.

BHI conducted independent assessments of:

- ERDF waste staging area and associated waste management activities
- Lead (Pb) operations program
- Waste Sampling and Characterization Facility (WSCF)
- Suspect/counterfeit item(s) control

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 the month of March for all metrics requiring monthly reporting were provided to RL by letter.

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**PROCESS IMPROVEMENTS**

**Six Sigma:**

- The Core Team members have held weekly meetings to monitor programmatic developments and identify/validate hard and soft dollar saving for calendar year 2003.
- Held monthly project reviews with upper management from RL and BHI reporting on achievements and path forward.
- A meeting with the RL Yellow Belt was held the first week of March to finalize the data collection strategy for review of Safety Basis Documents. A cycle-time data spreadsheet and process flowchart were prepared and forwarded to RL. ERC personnel also prepared a summary writeup of the application of Six Sigma methodology to the Safety Basis process for presentation to DOE Headquarters (HQ) personnel.
- 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 March focused on defining activities to set up and operate business and technical department infrastructures.
- Held bi-weekly Steering Committee meetings to monitor progress and develop program guidance.

Process Improvement Projects (PIPs) and status include:

- The Remedial Action and Waste Disposal (RAW) Container Deployment PIP team continued evaluating possible actions for improvement in daily production rates and the costs associated with implementation. Focus areas include container inventory and behavior training.
- The PIP addressing radiological survey of trucks leaving from low-risk sites is in the Design Phase using the Design for Six Sigma (DFSS) methodology. During this phase, the team is developing a new process, analyzing risks, and determining impacts on related processes. A field test will be conducted in early May.
- The business case for processing anomalous waste at the Burial Grounds was recently validated. It will be reviewed by the Six Sigma Steering Committee in April. A PIP strategy will be developed and implementation started during April. This PIP will require regulator involvement.
- Evaluation of business cases for two potential PIPs, one on the Employee Job Task Analysis (EJTA) process and the other on Total Hazard Management continued. Baseline defects data gathered by the EJTA team indicate that the EJTA process is not causing severe quality problems. The team decided it does not warrant pursuing a business case. The Total Hazard Management team is pursuing development of a business case on recommendations from the recent ISMS Task Team review of fourth-quarter 2002 operational events. The team is gathering baseline data to support a recommendation to the Six Sigma Steering Committee.

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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 March	0
Total Completed through March	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.

**PERFORMANCE OBJECTIVES**

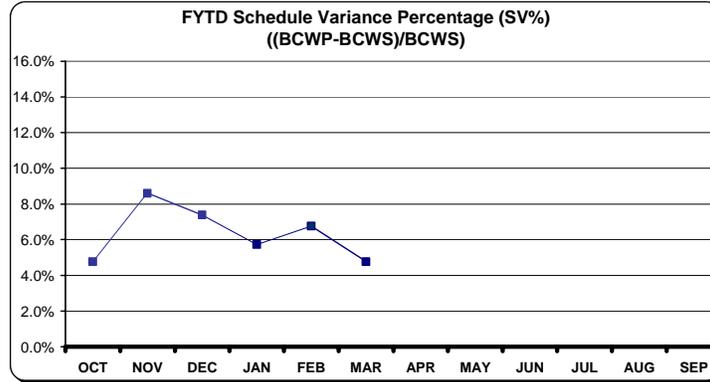
BHI focus area performance incentives are noted below. Specific River Corridor performance incentives are identified in Section B.

<b>PI</b>	<b>Fee Allocation</b>	<b>Task</b>	<b>Status</b>
 <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. No new or revised PIs have been received to recognize contract extension through June 30, 2003.
 <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. No new PIs have been received to recognize contract extension through June 30, 2003.

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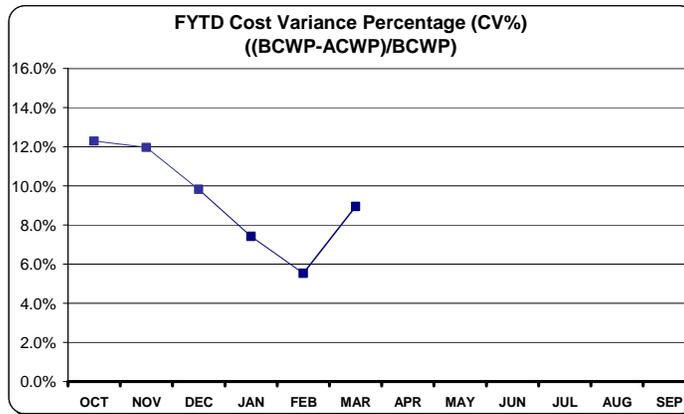
**TOTAL ERC COST/SCHEDULE OVERVIEW**

**FY03 ERC PERFORMANCE SUMMARY  
FYTD MARCH 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	9,315	9,531	11,659	8,607	10,622	9,193
BCWP	9,322	9,863	10,993	8,579	9,484	10,384						
<b>FISCAL YEAR TO DATE</b>												
BCWS	8,898	17,665	28,103	36,659	45,190	55,955	65,270	74,800	86,459	95,066	105,688	114,881
BCWP	9,322	19,185	30,178	38,757	48,241	58,625						
SV	424	1,520	2,075	2,098	3,051	2,670						
SV%	4.8%	8.6%	7.4%	5.7%	6.8%	4.8%						



	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							
BCWP	9,322	9,863	10,993	8,579	9,484	10,384							
<b>FISCAL YEAR TO DATE</b>													
ACWP	8,177	16,890	27,214	35,883	45,572	53,382							
BCWP	9,322	19,185	30,178	38,757	48,241	58,625							
CV	1,145	2,295	2,964	2,874	2,669	5,243							
CV%	12.3%	12.0%	9.8%	7.4%	5.5%	8.9%							
EAC (Cumulative)	8,177	16,890	27,214	35,883	45,572	53,382	64,201	73,497	84,111	91,289	100,010	107,766	107,766

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

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

	FY03 DWP BCWS	CURRENT BCWS	FYTD			FYTD SCHEDULE VARIANCE			FYTD COST VARIANCE			EAC
			BCWS	BCWP	ACWP	\$	%	SPI	\$	%	CPI	
RC01	65,900	68,459	33,108	33,335	30,837	227	0.7%	1.01	2,498	7.5%	1.08	65,275
RC02	12,608	12,873	6,510	8,303	6,989	1,793	27.5%	1.28	1,314	15.8%	1.19	10,969
RC05	32,855	33,450	16,316	16,966	15,543	650	4.0%	1.04	1,423	8.4%	1.09	31,431
<b>RCR-Subtotal</b>	<b>111,363</b>	<b>114,782</b>	<b>55,934</b>	<b>58,604</b>	<b>53,369</b>	<b>2,670</b>	<b>4.8%</b>	<b>1.05</b>	<b>5,235</b>	<b>8.9%</b>	<b>1.10</b>	<b>107,675</b>
SC01	100	99	21	21	13	0	0.0%	1.00	8	38.1%	1.62	
<b>SS-Subtotal</b>	<b>100</b>	<b>99</b>	<b>21</b>	<b>21</b>	<b>13</b>	<b>0</b>	<b>0.0%</b>	<b>1.00</b>	<b>8</b>	<b>38.1%</b>	<b>1.62</b>	<b>91</b>
<b>ERC TOTAL</b>	<b>111,463</b>	<b>114,881</b>	<b>55,955</b>	<b>58,625</b>	<b>53,382</b>	<b>2,670</b>	<b>4.8%</b>	<b>1.05</b>	<b>5,243</b>	<b>8.9%</b>	<b>1.10</b>	<b>107,766</b>

**Schedule Variance Summary:**

Through March, the ER Project is \$2.7M (+4.8%) 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 overburden removal proceeding ahead of schedule, and related ERDF operations ahead of schedule. Positive schedule variance is partially offset by ISS delays due to higher than anticipated radioactive contamination findings.

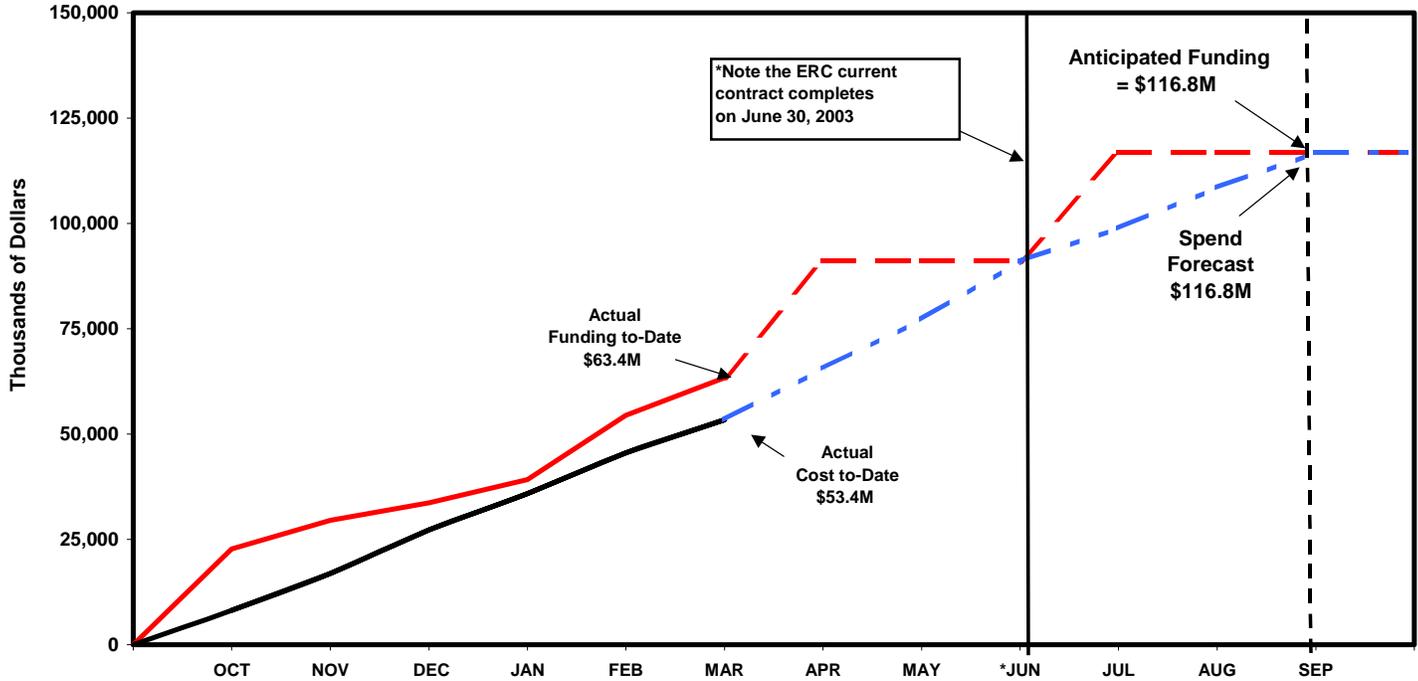
**Cost Variance Summary:**

At the end of March, the ER Project had performed \$58.6M worth of work, at a cost of \$53.4M. This results in a favorable cost variance of \$5.2M (+8.9%). The positive cost variance is attributed to consolidating common 618-4 and 618-5 Burial Ground remediation activities, lower project support costs for 100 K Area remediation due to resource sharing with 100 F Area, and prior-year rebill accounting adjustments that were realized in March. Underruns are partially offset by 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
<b>1 FY03 ERC FUNDING</b>	22,717	29,506	33,639	39,169	54,469	63,380	91,031	91,031	91,031	116,809	116,809	116,809		
<b>ACTUAL/EAC ON APPROVED SCOPE</b>														
<b>2 Actual Cost Cumulative Through March</b>	8,176	16,889	27,213	35,883	45,572	53,382								
<b>3 Current Monthly Actuals/EACs</b>	8,176	8,713	10,324	8,670	9,689	7,810	10,818	9,296	10,614	7,178	8,721	7,756		
<b>4 Cumulative Actuals/EACs on Approved Scope</b>	8,176	16,889	27,213	35,883	45,572	53,382	64,200	73,496	84,111	91,288	100,010	107,766		107,766
<b>APRIL FY2003 APPROVED BCPs</b>														
<b>5</b>														0
<b>6 Subtotal Approved Scope Changes</b>							0	0	0	0	0	0		0
<b>APRIL FY2003 PENDING/SCOPE CHANGES</b>														
<b>7 RC01 BCP-23X01 D Reactor Fuel Fragment Disposal</b>							4	28	8					40
<b>8 RC01 BCP-23045 Additional Sites to Remediate in 100-FR</b>							97	90	66					253
<b>9 RC01 BCP-23046 Defer Remaining Sites Engineering/Procurement for 300-FF-2</b>							(10)	(10)	(10)	(10)	(10)	(25)		(75)
<b>10 RC01 BCP-23X03 Well Abandonment at 1304-N Emergency Dump Tank</b>								225						225
<b>11 RC01 BCP-23X04 Delete Duplicate CVP for 10 - 100-BC Sites from Baseline</b>										(31)	(77)	(47)		(155)
<b>12 RC01 BCP-23X04 Delete Sampling Campaign and CVP for 100-B-5 and 100-B-8</b>							(28)	(84)	(55)					(167)
<b>13 RC02 BCP-23041 Oil Contaminated Soil at 618-5 Burial Ground</b>								191	77	95				363
<b>14 RC02 BCP-23X05 618-5 Burial Ground Quantity Reduction - Waste Minimization</b>							(98)	(99)						(197)
<b>15 RC05 BCP-23X06 Lead Bricks at ERDF (Macroencapsulation)</b>								181						181
<b>16 RC05 BCP-23X07 Accelerate ERDF Cells 5 &amp; 6</b>								250	200					450
<b>17 RC05 BCP-23X08 618-5 Burial Ground Quantity Reduction - Waste Minimization</b>									(50)	(174)	(163)			(387)
<b>18 RC05 BCP-23X09 Reduced Tonnage for LDR Lead Soil from 300-FF-2</b>								(120)						(120)
<b>19 RC05 BCP-23X10 Increased scope from F Reactor ISS and N. Crib</b>							11	11	11	11	11	11		66
<b>20 ALL BCP-23X11 Implementation of the River Corridor Contract Transition</b>							200	500	600					1,300
<b>21 ALL BCP-23X12 June 30, 2003 (Last day of Contract)</b>									450	(450)				0
<b>22 ALL BCP-23X13 Post Contract Accruals</b>									635			(635)		0
<b>23 ALL BCP-23X14 Additional Retiree Medical Costs</b>									51	6	6	6		69
<b>24 ALL Pending Scope Additions, Deletions, Etc.</b>							1,199	1,200	1,199	1,200	1,199	1,200		7,197
<b>25 Subtotal Approved BCPs + Pending BCPs</b>							1,375	2,363	3,182	647	966	510	0	9,043
<b>26 Current Monthly Actuals/EACs + April FY03 Approved/Pending BCPs</b>	8,176	8,713	10,324	8,670	9,689	7,810	12,194	11,659	13,797	7,825	9,687	8,266		
<b>27 Cumulative Actuals/EACs + April FY03 Approved/Pending BCPs</b>	8,176	16,889	27,213	35,883	45,572	53,382	65,576	77,235	91,031	98,856	108,543	116,809	-	116,810

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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 upon award of new contract.

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## SECTION B – RIVER CORRIDOR RESTORATION

Data as of month-end March

### ACCOMPLISHMENTS

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

During March, excavation of the 100-C-3 French Drain and four septic systems was completed. Excavation of the last septic system, 1607-B-9, is in progress. Characterization of six 100 B/C Area Remaining Sites was also completed, with two sites in progress. Removal of clean overburden continued on the 1.7-meter (66-inch) pipelines 25 and 26.

The 100 Area B/C Pilot Study Data Quality Objective (DQO) Summary Report, Rev. 0, was issued the first week of March. The Sampling and Analysis Plan (SAP), Draft A, was also transmitted to RL and the regulators for review and comment. A presentation of the 100 Area B/C Pilot Study was provided to the Hanford Advisory Board River and Plateau Committee. Results of the DQO and the approach to the sampling plan were presented.

Backfill was completed for three waste sites in the 100 F Area including 116-F-3 Trench, 100-F-15 French Drain, and 100-F-35 Discovery Site. Backfill of the pipe trenches east of the F Reactor fuel storage basin (FSB) was also initiated. RL approved the Finding of No Significant Impact (FONSI) for an alternative borrow source in the 100 F Area. This will allow 100 F Area backfill operations to be completed ahead of schedule.

The eagle roosting restrictions were lifted on March 15. Work activities on the 116-KW-3 Retention Basins within the 400-meter (1,312-foot) exclusion zone resumed.

In the 100 N Area, overburden removal of plume 9 was completed, and overburden removal of plume 10 continued. The 116-N-1 Explanation of Significant Difference (ESD) public review ended on March 31 with minimal comments and questions.

At H Reactor, demolition of the east water tower valve pit and associated tower pedestals was completed. All pre-start items for intrusive work in the FSB were completed on March 26. A Canberra Alpha Sentry Continuous Air Monitor network was installed at H Reactor to support excavation, demolition, and loadout activities in the FSB. The network will be used as a real-time air monitoring system that will provide verification that engineering controls for airborne radiological contamination (e.g., fixatives, dust suppression) are adequate.

The Q-deck roofing and equipment was removed in the upper process area and the D Machine Room in support of the F Reactor safe storage enclosure (SSE) roof installation.

Asbestos abatement of the DR Reactor water tower valve pits was completed.

Demolition of the above-grade 117-DR filter building was completed. Surrounding soil was excavated to allow access to the below-grade structure.

A walkdown of the 1720-HA arsenal facility was performed with Security personnel the week of March 10. A walkdown with a canine that is trained to find explosives is scheduled for April 2. The walkdown is intended to verify that no unexploded ordnances are still present in, or around, the facility.

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**ACCOMPLISHMENTS (continued)**

On March 20, 25 additional facilities were inspected for inclusion in the 100 N Area Ancillary Facilities DQO and SAP. No significant issues were identified that would affect the DQP or SAP. The draft should be ready for internal review by April 7.

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

- Initiated asbestos abatement field work at the 109-N facility.
- Completed fair-price estimate, radiological surveys, sampling, and sampling analysis for the 1304-N emergency dump tank asbestos abatement task.
- Completed room-by-room hazard mitigation, minor maintenance, and repairs at B Reactor.
- Completed SAP and sampling of chemical legacy waste at KW Reactor in support of remedial action.

**300 Area Cleanup (RC02):**

The last contaminated land disposal restricted (LDR) material from the 618-4 Burial Ground was transported to ERDF for disposal.

Results from the 618-4 Burial Ground preliminary sampling analysis for the oil-contaminated soil indicated total petroleum hydrocarbon (TPH) contamination above cleanup goals. Contamination above cleanup goals is to a maximum depth of 3.7 meters (12 feet) below the bottom of the 618-4 Burial Ground. Based on laboratory analysis from the trenching activities, the revised estimate excavation is 4,161 metric tons (4,587 tons) of contaminated soil and 7,632 metric tons (8,413 tons) of clean material. A baseline change proposal (BCP) was prepared.

The infiltration test results for the North Process Pond were within the new uranium cleanup goal of 267 pCi/g. No further remediation will be required at this waste site.

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

Drummed waste, consisting of uranium chips in oil, that was excavated from the 618-4 Burial Ground in the 300 Area is being staged at an interim storage pad in ERDF. The waste treatment plan for this waste was issued in March. The preferred treatment technology recommendation is off-site phase separation, incineration of the liquids, and solidification of the solids. The residuals would be returned for ERDF disposal.

Construction was completed on the firewater loop upgrade near the interim waste staging area at ERDF.

The final design package for ERDF cells 5 and 6 expansion was completed in March.

The ERDF Transportation team has now exceeded 11,263,000 kilometers (7,000,000 miles) of waste transportation services.

The ERDF Disposal team has worked 83 months (since project inception) without a lost time accident.

During March, 48,581 metric tons (53,552 tons) of contaminated waste were disposed in ERDF, for a total of 301,538 metric tons (332,391 tons) disposed to date in FY03. A total of 3,765,181 metric tons (4,150,423 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)**

<b>TPA Milestone</b>	<b>Description</b>	<b>Due Date</b>	<b>(F)/(A) Date</b>
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*

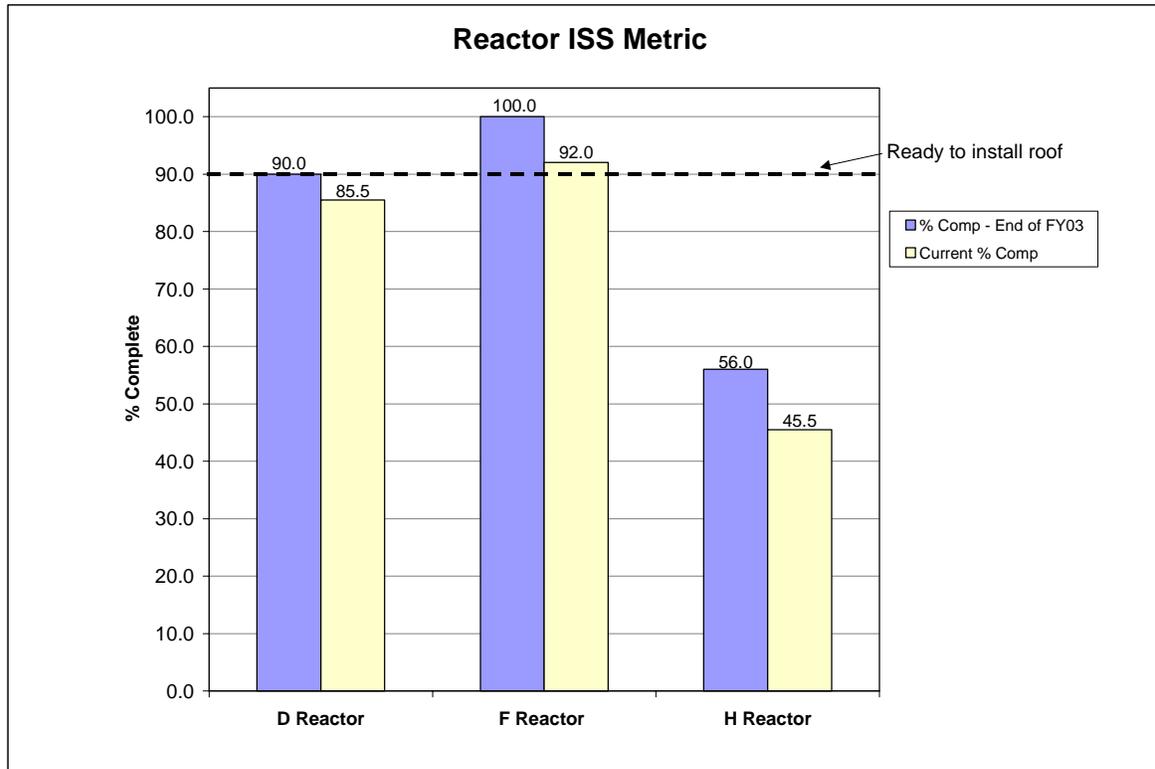
\*Scheduled completion date at risk due to delay in awarding River Corridor contract.

**PERFORMANCE OBJECTIVES**

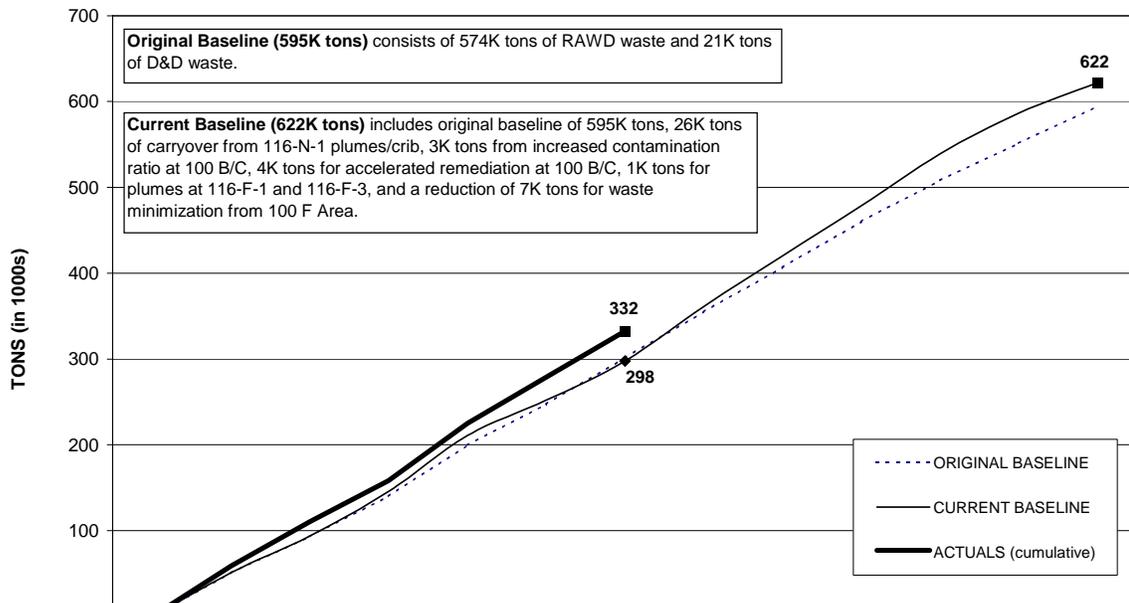
<b>PI</b>	<b>Task</b>
 <b>Reactor Interim Safe Storage</b>	Complete FY02 carryover ISS activities at F Reactor by November 20, 2002. <b>Status:</b> Completed on November 13, 2002. Notice of Completion package transmitted to RL on January 8, 2003. RL completed review and approved payment of full fee on January 30, 2003.

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**PERFORMANCE MEASURES/METRICS**



### Remedial Action Metric Cumulative Tons to ERDF

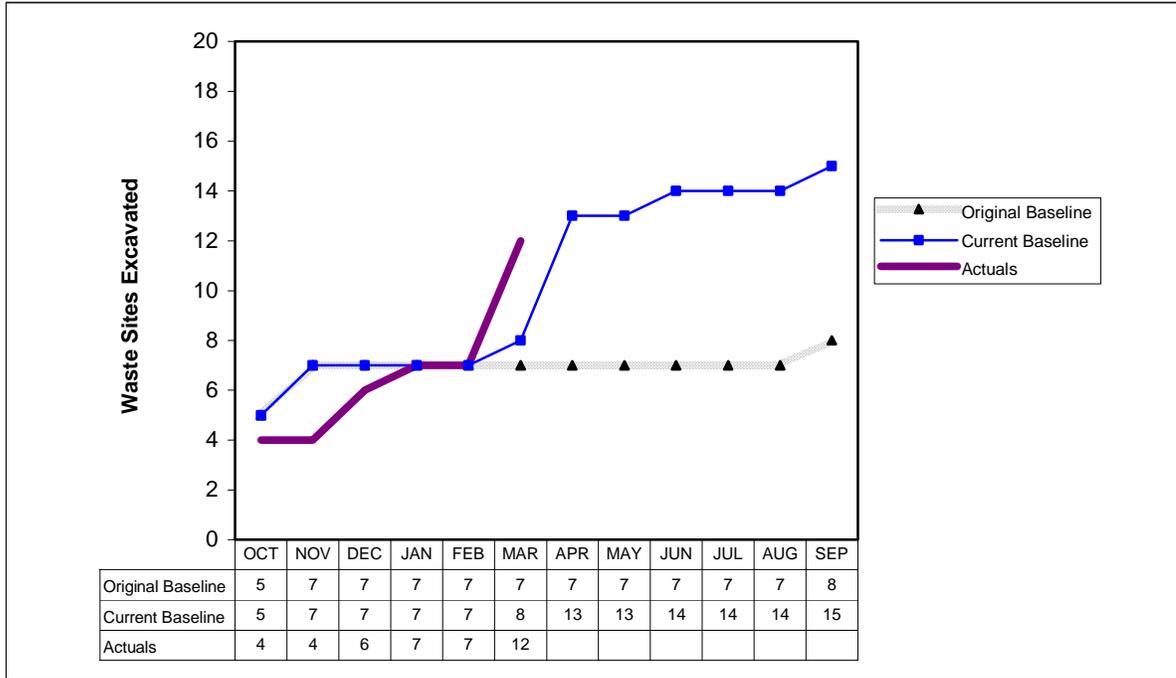


	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
ORIGINAL BASELINE	51	93	140	200	248	302	355	407	460	508	551	595
CURRENT BASELINE	51	94	146	211	252	298	361	420	478	539	586	622
ACTUALS (cumulative)	59	110	158	225	279	332						

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**PERFORMANCE MEASURES/METRICS (continued)**

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



NOTE: Waste site scheduled for completion in September is currently "TBD" date. Final surveys indicate oil-contaminated soil plume which may require additional remediation.

**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**

**Schedule:**

River Corridor Restoration	BCWS	BCWP	Variance
	\$K	\$K	\$K
RC01 100 Area River Corridor Cleanup	33,108	33,335	227
RC02 300 Area Cleanup	6,510	8,303	1,793
RC05 River Corridor Waste Management	16,316	16,966	650
<b>TOTAL River Corridor Restoration:</b>	<b>55,934</b>	<b>58,604</b>	<b>2,670</b>

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

Schedule Variance = **\$227K; 0.7%**

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

**Resolution:** N/A

**Cause:** Six-week delay in H Reactor FSB cleanout due to airborne radiation and water removal issues.

**Resolution:** Schedule is not recoverable in FY03; revised scope and schedule adjustments are being prepared.

**PBS-RC02 – 300 Area Cleanup**

Schedule Variance = **\$1,793K; 27.5%**

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

**Resolution:** N/A

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

Schedule Variance = **\$650K; 4.0%**

**Cause:** LDR lead soil treatment ahead of schedule; waste disposal also ahead of plan by 34K tons due to mild winter weather.

**Resolution:** N/A

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**COST/SCHEDULE STATUS (continued)**

**Cost:**

River Corridor Restoration	FY03 EAC	BCWP	ACWP	Variance
	\$K	\$K	\$K	\$K
RC01 100 Area River Corridor Cleanup	65,275	33,335	30,837	2,498
RC02 300 Area Cleanup	10,969	8,303	6,989	1,314
RC05 River Corridor Waste Management	31,431	16,966	15,543	1,423
<b>TOTAL River Corridor Restoration:</b>	<b>107,675</b>	<b>58,604</b>	<b>53,369</b>	<b>5,235</b>

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

Cost Variance = **\$2,498K; 7.5%**

**Cause:** Lower project support costs for 100 K Area remediation due to resource sharing with 100 F Area remediation work.

**Resolution:** Underrun reflected in EAC.

**Cause:** H Reactor and D Reactor FSB demolition/loadout requiring additional support than planned to resolve radiological contamination issues.

**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 = **\$1,314K; 15.8%**

**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 = **\$1,423K; 8.4%**

**Cause:** Subcontract negotiations yielded reduced LDR lead soil treatment costs; uranium oxide preliminary treatment plan was simplified.

**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 on November 14 and January 8. A revised ESD incorporating HAB and regulator comments was sent to the regulators on January 16. The ESD public comment period started on February 3 and ended on March 31. Comments received to date, including favorable comments from the Oregon Department of Energy and an Oregon tribe, are being addressed.

- **M-16-03H - 300-FF-1 Regrading:** Tri-Party Agreement Milestone M-16-03H, "Complete Remediation of Waste Sites in 300-FF-1 Operable Unit to Include Excavation, Verification, and Regrading, Including the 618-4 Burial Ground in Accordance with an Approved RDR/RAWP", is due December 31, 2003. A regrading Request for Proposal (RFP) package was completed in February. On February 28, RL directed the RFP process be placed on hold due to recent concerns expressed by the City of Richland and Benton County Board of Commissioners regarding industrial redevelopment in the 300 Area.

**Strategy/Status:** Tri-Party Agreement change request M-16-03-01 was approved on March 25 that extended the milestone date six months to June 30, 2004. This extension will allow RL, EPA, and the local government agencies to discuss the 300-FF-1 Operable Unit regrading methodology and end state. Issue closed.

- **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.

- **H Reactor FSB Excavation:** Removable contamination levels on the concrete floors of the H Reactor FSB have been found to be significantly higher than expected during initial planning.

**Strategy/Status:** Work involving removal of additional sediments from the FSB had been temporarily suspended until additional radiological survey data were obtained, current work processes and engineering controls were reviewed and revised as necessary, and the applicable documentation was modified to address the changes in the radiological conditions. Authorization to proceed with intrusive work activities was received on March 26. A baseline change proposal (BCP) is being prepared to address impacts from elevated removable alpha contamination. Issue closed.

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

- **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**

The ERC hosted the March Quarterly Environmental Forum for the Hanford Site on March 13. The agenda included presentations from RL management on the Cleanup Constraints and Challenges Team (C3T) progress, DOE's new approach to cleanup using risk-based end states, DOE land transfer, and a Fluor Hanford presentation on the capabilities of the centralized consolidated recycling center. Approximately 55 people from DOE and Hanford Site contractors attended the forum.