

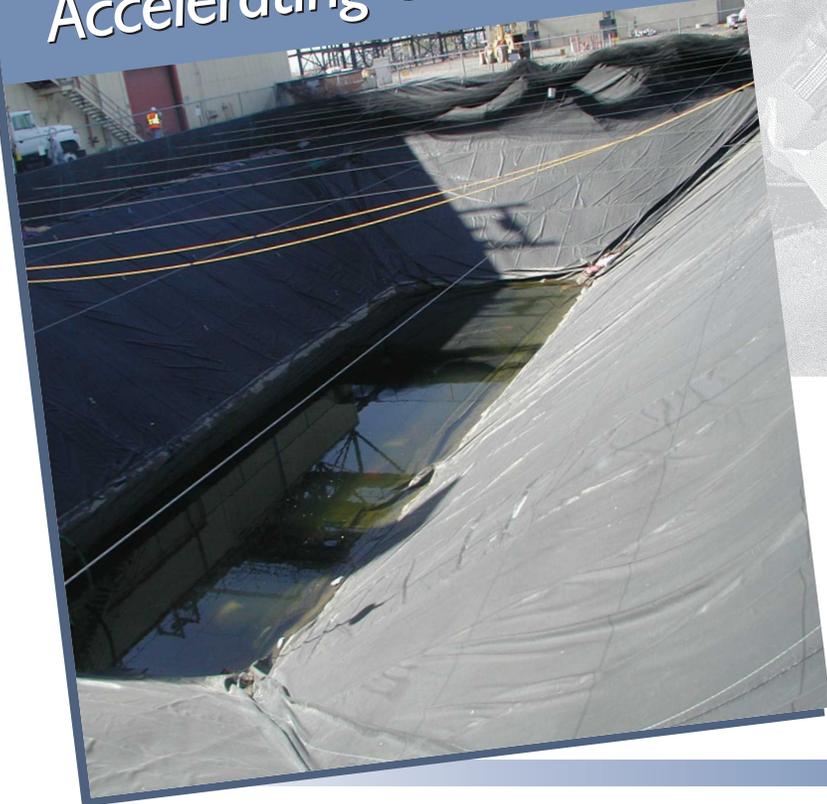
# Environmental Restoration Contract

## *Monthly Performance Report*

April 2004



Accelerating Cleanup ...



**Department of Energy**  
Richland Operations Office



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



**CH2MHILL Hanford Inc.**



**EBERLINE  
SERVICES  
HANFORD, INC.**

# ENVIRONMENTAL RESTORATION EXECUTIVE SUMMARY

April 2004 Monthly Report

### SAFETY:

As of April 30, the ERC worked approximately 463,200 hours since the last lost workday incident which occurred on October 28, 2003. The ERC has experienced 89% injury free workdays during FY04. No significant issues or findings were identified with regard to the 12 applicable CPOF criteria during the April reporting period. Current month: 3 first aids; 1 lost restricted

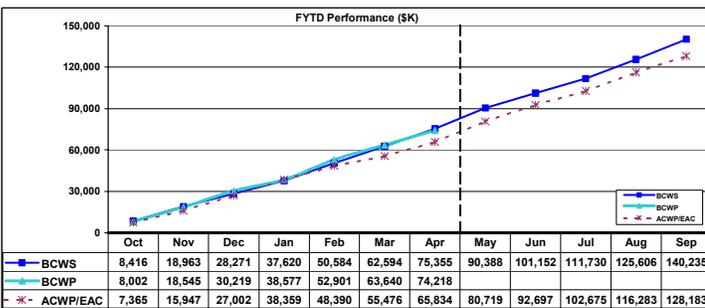
### HIGHLIGHTS:

- Completed technical review of bids for H Reactor SSE design/construction.
- Completed demolition/loadout activities for 1304-N Emergency Dump Tank.
- Initiated asbestos removal at 190-DR facility.
- Completed backfill of 118-B-4, B5, B10, and C2 Burial Grounds.
- Initiated remediation of 116-K-2 Mile Long Trench.
- Awarded subcontract for remediation of 116-N-1 Crib.
- Received RL/regulator approval of the 100 Area Remaining Sites Explanation of Significant Difference (ESD).**
- Initiated additional 183-H Basin bench scale testing to develop a more cost effective treatment formula for precipitated crystals (4,700 drums).
- Disposed of final major shipment of demolition debris from 233-S.
- Completed all scheduled rad surveys along reactor shoreline areas (100 D/H and 300 Areas) including 100 K cemetery.
- Completed 100 B/C Pilot Round 1 sampling and draft Data Summary for 2003.

### UPCOMING KEY ACTIVITIES:

- Award subcontract for H Reactor SSE design/construction - May.
- Start 1300-N Basin piping removal/asbestos abatement - May.
- Complete 100 B/C pipeline backfill in May.
- Issue RFP for 300 Area East Side Remediation Package in early May.
- Procure compliant waste containers for shipping higher activity waste that meet new DOT regulations effective in October.
- Review/approve waste profiles for returning treated uranium chips-in-oil waste to Hanford for disposal in ERDF (M-16-03I).
- Transmit 100/300 Area General Work Plan decisional draft in late May.

### PERFORMANCE:



- SV:** (\$1,137K); (1.5%). ERDF expansion behind schedule due to inclement weather and recurring pugmill equipment failures. Pugmill has been changed out; schedule expected to be recovered.

- CV:** \$8,384K; 11.3%. 300 Area backfill/regrade subcontract award less than plan; favorable settlement for previous site subcontract litigation; prior-year rebill accounting adjustments; reduction of estimated performance fee; offset by increased uranium chips-in-oil drum treatment costs.

### EAC TRENDS:

Current Month: (\$1,391K)  
FYTD: (\$12,052K)

- Labor reductions at N Area, 300 Area, Group 4, 100 Area S&M; 300 Area backfill/regrade efficiencies; favorable settlement for previous site subcontract litigation; DR ancillary facilities D&D efficiencies; prior-year rebill accounting adjustments.

### TPA MILESTONES:

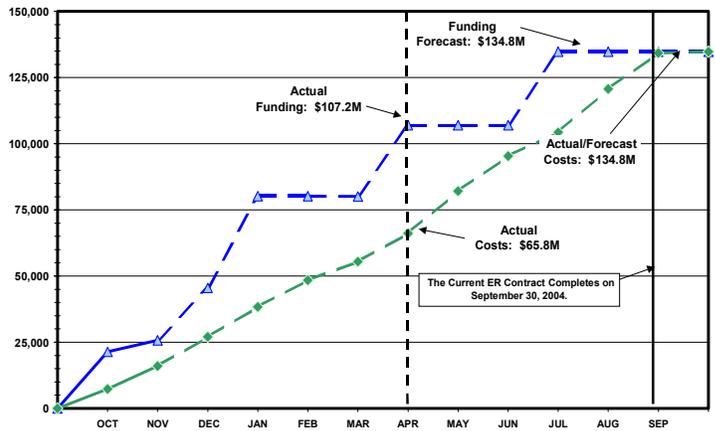
FY04 planned and completed TPA milestones:

- M-16-03H, Complete 300 Area regrade (due 6/30/04); **completed 2/19/04.**
- M-16-26E, Complete 100 B/C pipeline excavation (due 9/30/04); **completed 11/5/03.**
- M-93-11, Complete F Reactor ISS (due 9/30/04); **completed 1/15/04.**

Outyear TPA milestones forecast to be completed in FY04:

- M-16-26F, Complete 100 B/C pipeline backfill (due 2/28/05); **forecast 5/7/04.**
- M-16-03I, Complete 618-4 drum treatment (due TBD); **forecast 6/30/04.**
- M-93-17, Complete D Reactor ISS (due 12/31/04); **forecast 9/30/04.**

### FUNDING:



### PERFORMANCE INCENTIVES:

- SPI = 1.06 FYTD through April. SPI is projected to be above 1.1 at the end of the performance period.
- Remove a Gold Chart radiological facility by 3/1/04. Demolished above-grade portion of 1304-N Tank. **Completed 4/2/04.** Tank base will remain in place due to upcoming 1300-N Basin demolition.
- Complete 10 Gold Chart release sites by 3/1/04. **Completed 2/23/04.**
- Complete 300-FF-1/618-5 Burial Ground regrade by 3/1/04. **Completed 2/19/04.**

### ISSUES:

- Non-ERC Hanford waste to ERDF acceptance criteria.
- New DOT radiological shipping requirements (10/01/04).

# ENVIRONMENTAL RESTORATION FACILITIES DECOMMISSIONING PROJECT

April 2004 Monthly Report

### SAFETY:

- FYTD: 9 first aids; 1 recordable-only; 2 lost restricted; 0 lost workday; 0 skin contaminations
- Current Month: 1 first aid (strain); 1 lost restricted (strain)

### HIGHLIGHTS:

#### H Reactor:

- Initiated demolition preparation activities in gas wing.
- Completed pourbacks in FSB discharge chute area.
- Completed technical review of bids for SSE design/construction.

#### D Reactor:

- Continued SSE roof construction (40% complete).

#### 1304-N Emergency Dump Tank (EDT) / 1300-N Basin (EDB):

- Completed demolition/loadout activities for EDT.
- Removed railroad ties/rails from west side of EDB.
- Excavated west side of EDB exposing 30" raw water line. Performed sampling of water line coating for asbestos.
- Set up pump/filter and began removal of rain water from EDB.

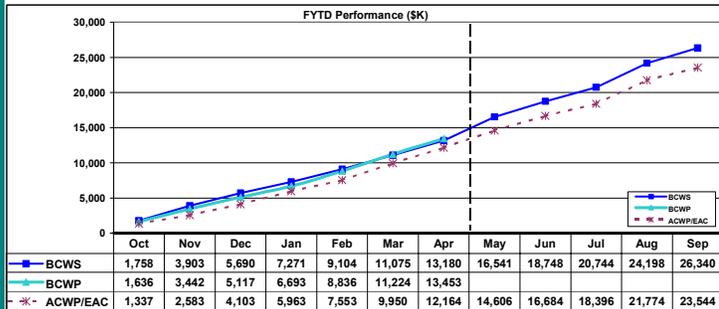
#### 190-DR Facility:

- Initiated asbestos removal on April 30.

### UPCOMING KEY ACTIVITIES:

- Award subcontract for H Reactor SSE design/construction - May.
- Complete explosive demolition of H Reactor gas wing - June.
- Issue draft EE/CAs for K Area ancillary facilities and 105-N/109-N buildings to RL/regulators for review - June.
- Initiate preparation of 300 Area (Zone A) EE/CA.
- Remove liquid from EDB (completed in May).
- Remove 1300-N EDB cover/apply fixative; start piping removal/asbestos abatement - May.

### PERFORMANCE:



- SV:** \$273K; 2.1%. D Reactor SSE ahead of schedule; offset by late start for H Reactor gas wing demolition (resources utilized for FSB demolition which was impacted by inclement weather).
- CV:** \$1,289K; 9.6%. Fewer resources required for 100 Area S&M. Less project support/oversight required for DR ancillary facilities D&D, F Reactor, and less miscellaneous sampling required.

### EAC TRENDS:

Current Month: (\$1,080K)

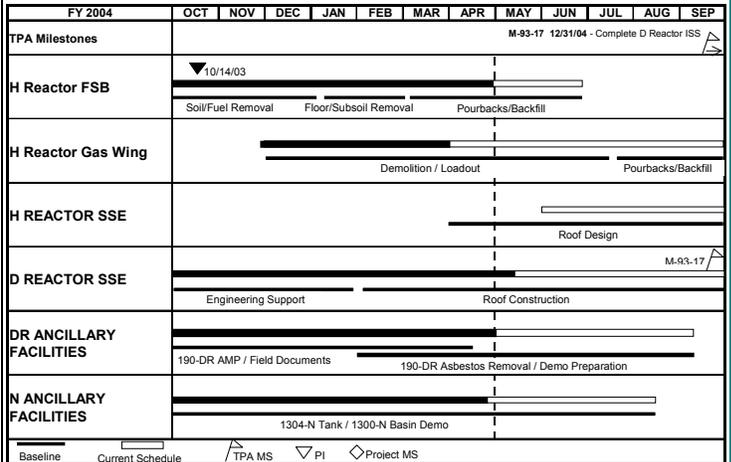
FYTD: (\$2,797K)

- 100 Area S&M utilizing fewer resources than expected.
- 117-DR demolition/loadout efficiencies.
- 190-DR asbestos removal less than anticipated.

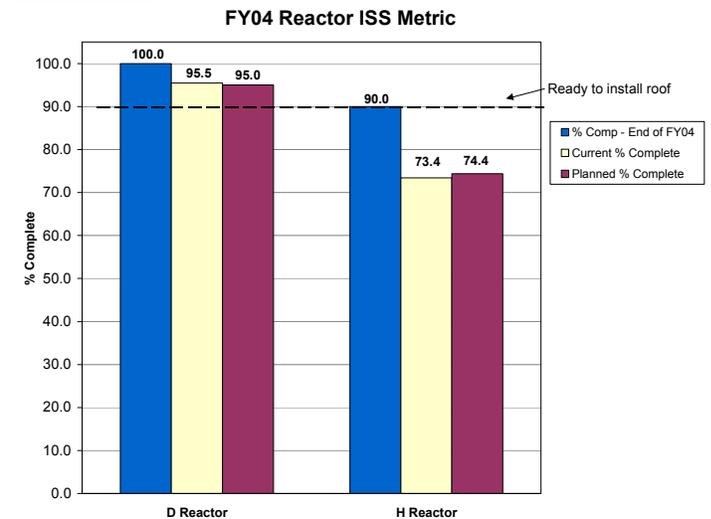
### TPA MILESTONES:

- M-93-11, Complete F Reactor ISS (due 9/30/04); **completed 1/15/04, more than 8 months ahead of schedule.** (Physical ISS work completed in August; regulators approved S&M Plan on 1/15/04.)
- M-93-17, Complete D Reactor ISS (due 12/31/04); **forecast 9/30/04.**

### SUMMARY SCHEDULE:



### ISS METRIC:



### PERFORMANCE INCENTIVES:

Remove a Gold Chart radiological facility by 3/1/04. **Demolished above-grade portion of 1304-N Tank. Completed 4/2/04.** Tank base will remain in place due to upcoming 1300-N Basin demolition.

### ISSUES:

None for this reporting period.

# ENVIRONMENTAL RESTORATION REMEDIAL ACTION PROJECT

April 2004 Monthly Report

### SAFETY:

FYTD: 3 first aids; 0 recordable; 0 lost workday cases  
Current Month: None

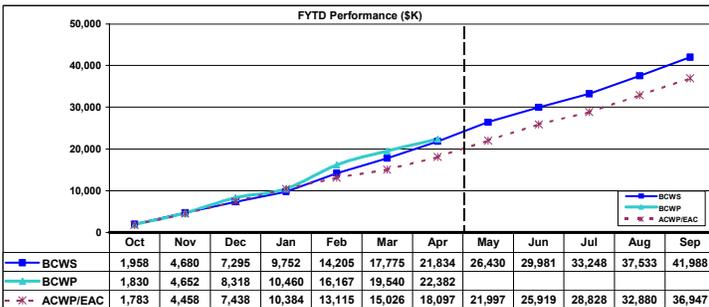
### HIGHLIGHTS:

- Completed overburden removal from 118-B-3 Burial Ground.
- Completed backfill of 118-B-4, B5, B10, and C2 Burial Grounds.
- Completed confirmatory sampling at B/C site 600-232.
- Initiated remediation of 116-K-2 Mile Long Trench.
- Awarded subcontract for remediation of 116-N-1 Crib .
- Received RL/regulator approval of the 100 Area Remaining Sites Explanation of Significant Difference (ESD).**
- Completed 300 Area road improvement construction at Pit 6 entrance and at entrance to 316-4 and 600-259.
- Issued the 300 Area Unrestricted Land Use ROM Cost Estimate.**
- Prepared hazard matrix for 618-7 investigation. Currently working on investigation options for presentation to management.
- Completed an Unreviewed Safety Question (USQ) for the safety analysis for the 116-C-3 Chemical Waste Tanks.
- Initiated chromium sampling at 100 D Area.
- Issued CVPs Rev. 0 for 116-KW-3 Retention Basin, 116-K-1 Crib, and 100 B/C South Effluent Pipelines; issued CVP Rev. A for 118-B-5 and 118-B-10 Burial Ground.

### UPCOMING KEY ACTIVITIES:

- Complete 100 B/C pipeline backfill in May.
- Finalize mobilization and readiness assessment for 116-N-1 Crib. Begin remediation in June.
- Complete 100 D Area chromium sampling in May.
- Issue 100 and 300 Area RDR and SAP documents with RL/regulator approval of ESDs.
- Issue RFP for 300 Area East Side Remediation Package in early May.

### PERFORMANCE:



- SV: \$548K; 2.5%.** 300 Area backfill/regrade completed significantly ahead of schedule. B/C Burial Ground remediation ahead of schedule due to revised work approach. Partially offset by delays in the 618-7 Field Investigation, the D Area Chrome Investigation, and the IU2/IU6 Geophysical/Sampling Activities.

- CV: \$4,285K; 19.1%.** 300 Area backfill/regrade subcontract award less than plan; N Area final contract closeout less than planned; favorable settlement for previous site subcontract litigation.

### EAC TRENDS:

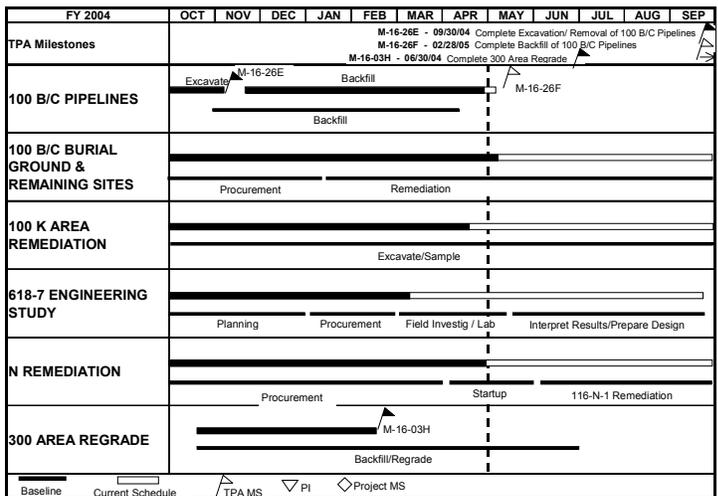
Current Month: (\$298K)  
FYTD: (\$5,041K)

- Labor reductions at N Area, 300 Area, and Group 4; 300 Area backfill/regrade subcontract efficiencies; favorable settlement for previous site subcontract litigation; waste minimization efforts at BC site 600-232.

### TPA MILESTONES:

- M-16-03H, Complete 300-FF-1, 618-4, and 618-5 Burial Ground regrade (due 6/30/04); completed 2/19/04, more than 4 months ahead of schedule.**
- M-16-26E, Complete excavation/removal of 100 B/C pipelines (due 9/30/04); completed 11/5/03, nearly 11 months ahead of schedule.**
- M-16-26F, Complete backfill of 100 B/C pipelines (due 2/28/05); forecast 5/7/04.**

### SUMMARY SCHEDULE:



### PERFORMANCE INCENTIVES:

- Complete 10 Gold Chart release sites by 3/1/04. **Completed on 2/23/04.**
- Complete 300-FF-1/618-5 Burial Ground regrade by 3/1/04. **Completed on 2/19/04.**

### ISSUES:

- New DOT radiological shipping requirements (10/01/04).

# ENVIRONMENTAL RESTORATION WASTE OPERATIONS PROJECT

April 2004 Monthly Report

### SAFETY:

FYTD: 6 first aids; 1 lost restricted; 0 lost workday cases  
Current Month: 2 first aids (contusion/abrasion)

### HIGHLIGHTS:

- Received 40,910 tons of waste at ERDF during April; 262,312 tons during FY04; 4,780,077 tons of contaminated material have been disposed in ERDF since operations began in July 1996.
- Suspended ERDF operations on five separate days in April due to high winds.
- Resolved depleted uranium/oil sampling issues with subcontractor. Revising waste profiles to accommodate resolution of sampling issues.
- Completed polychlorinated biphenyl (PCB) annual document report.
- Continued treatment of 183-H Basin waste. Initiated additional bench scale testing to develop a more cost effective treatment formula for precipitated crystals (4,700 drums).
- Received and disposed of the final major shipments of demolition debris from 233-S. Only miscellaneous worksite cleanup wastes remain.
- Began receiving waste shipments from 116-K-2 Mile Long Trench and 118-B-1 Burial Ground.
- Continued admix production in April with 27,403 tons; a total of 48,522 tons produced to date (34% complete). During April, 31,860 tons were installed in Cell 6, totaling 47,120 tons installed (33% complete).
- Construction subcontractor changed out the soil/bentonite mixing pugmill due to regular equipment failures. Post changeout sieve and permeability tests show no impact to admix output.
- Completed the lysimeter installation in Cells 5/6 on April 29.
- Producing gravel at Pit 30. Gravel is being conveyed and stockpiled near Cells 5/6.

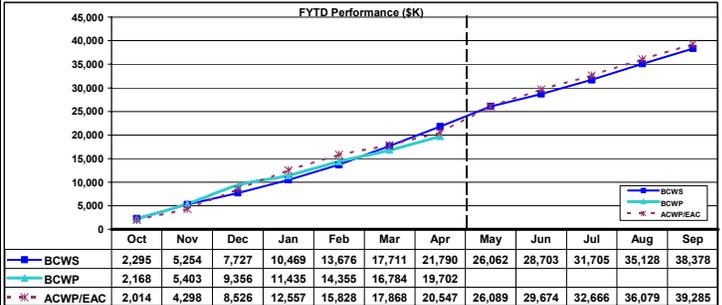
### UPCOMING KEY ACTIVITIES:

- Procure compliant waste packaging containers for shipping higher activity waste from 100-N Cribs and for compliance with newly promulgated regulations that become effective in October.
- Complete bench-scale testing of a less costly formula for 183-H Basin waste treatment.
- Review/approve waste profiles for returning treated uranium chips-in-oil waste to Hanford for disposal in ERDF (M-16-031). Approval of waste profiles is expected first week in May.
- Commence receipt of low-level fraction of waste from FH's TRU Retrieval Project. Waste will initially be sent to PeCOS for treatment, prior to ERDF disposal. Future ERDF treatment options are being evaluated.
- Begin Cells 5/6 liner placement in May.

### TPA MILESTONES:

M-16-031, Complete treatment of drummed waste from 618-4 Burial Ground (due TBD); *forecast 6/30/04.*

### PERFORMANCE:



- SV:** (\$2,088K); (9.6%). ERDF expansion behind schedule due to inclement weather and recurring pugmill equipment failures. Subcontractor changed out pugmill to eliminate future failures; schedule expected to be recovered.
- CV:** (\$845K); (4.3%). Increase in uranium chips-in-oil treatment costs.

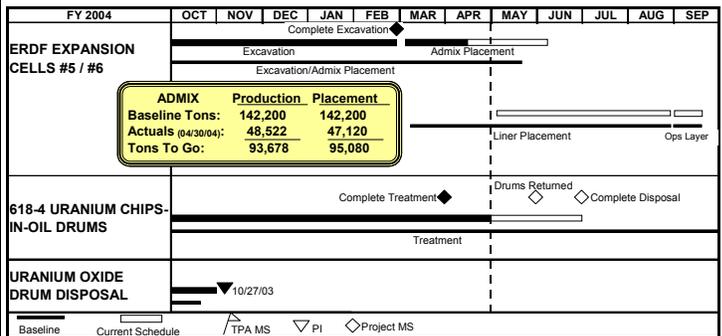
### EAC TRENDS:

Current Month: (\$153K)

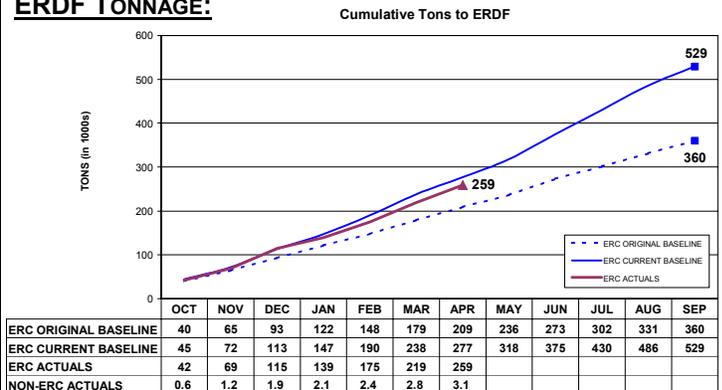
FYTD: \$907K

- Increased cost for treatment/disposal of uranium chips-in-oil.

### SUMMARY SCHEDULE:



### ERDF TONNAGE:



### ISSUES:

- Non-ERC Hanford Waste to ERDF. Evaluate the acceptance criteria of Hanford Site waste disposal.
- Efforts to support FH on TRU Waste Retrieval Project - M-91-40.

# ENVIRONMENTAL RESTORATION RISK ASSESSMENT AND SITE CLOSURE PROJECT

April 2004 Monthly Report

## SAFETY:

No first aid, recordable, or lost workday cases experienced FYTD.

## HIGHLIGHTS:

### 100/300 Area:

- Continued development of General Work Plan for the River Corridor Baseline Risk Assessment (RCBRA).
- Completed and posted draft of Work Plan Sections 1-6 on Web page for Tribes and stakeholders review.
- Completed review of existing sampling data and posted compilation report on Web page.
- Completed all scheduled rad surveys along reactor shoreline areas (100 D/H and 300 Areas) including 100 K cemetery.

### 100 B/C Pilot:

- Completed Round 1 sampling and draft Data Summary for 2003.
- Completed draft (Round 2) Field Sampling Plan for 2004; submitted to RL/regulators for review. Commenced Round 2 sampling.
- Initiated sampling for Native American plants in cooperation with the Wanapum.

### Columbia River Component:

- Completed draft *Columbia River Corridor Component of the River Corridor Baseline Risk Assessment Project: Basis and Assumptions on Project Scope* and transmitted for Tribe, stakeholder, and public review.
- Finalized Communication/Consultation Plans for RCBRA Project with all Tribes.

### Closure Activities:

- Issued report RA&SC-SA-04-02 for self-assessment of waste site closure documentation.
- Documented cleanup verification data needs for 118-B-1 Burial Ground staging pile areas and for below cleanup level soil.
- Revised draft DQA procedure template/checklist to be consistent with Remaining Sites Verification Packages.
- Presented "Orphan Sites" alternatives for BCP to RL.
- Completed installation of long-term monitoring plots.
- Completed lead-sheath cable Sample Analysis Plan.

## UPCOMING KEY ACTIVITIES:

### 100/300 Area:

- Begin screening-level evaluation of data as part of DQO process.
- Transmit General Work Plan decisional draft in late May.

### 100 B/C Pilot:

- Incorporate RL/regulators comments into Field Sampling Plan.

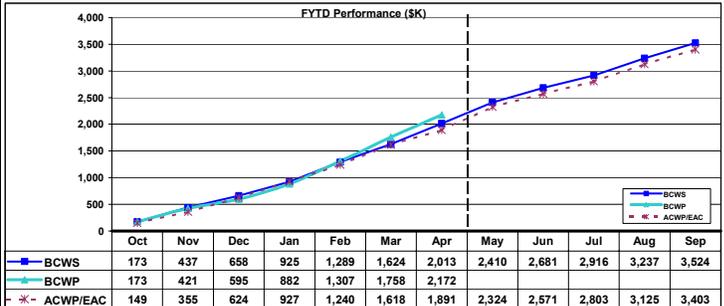
### Columbia River Component:

- Meet with Tribes, HAB, and Natural Resource Trustees to discuss Columbia River Component Basis and Assumptions (B&A) document.
- Develop preliminary schedule.

### Closure Activities:

- Finalize requirements for cleanup verification documents for Confirmatory Sampling and/or Remaining Sites.
- Update database for cleanup verification sample location metadata for 100 Area.
- Develop BCP to support orphan site activities.
- Complete lead-sheath cable Waste Control Plan and commence sampling.

## PERFORMANCE:



- SV: \$160K; 7.9%.** B/C Risk Assessment Report Computational Method completed, and risk calcs started, ahead of schedule. Columbia River Component objectives/issues definition and draft B&A completed ahead of schedule.
- CV: \$282K; 12.9%.** Columbia River Component objectives/issues definition and draft B&A document required fewer resources than planned due to lessons learned from 100/300 Area. Preliminary gamma surveys were conducted with continually improving efficiencies.

## EAC TRENDS:

Current Month: (\$168K)

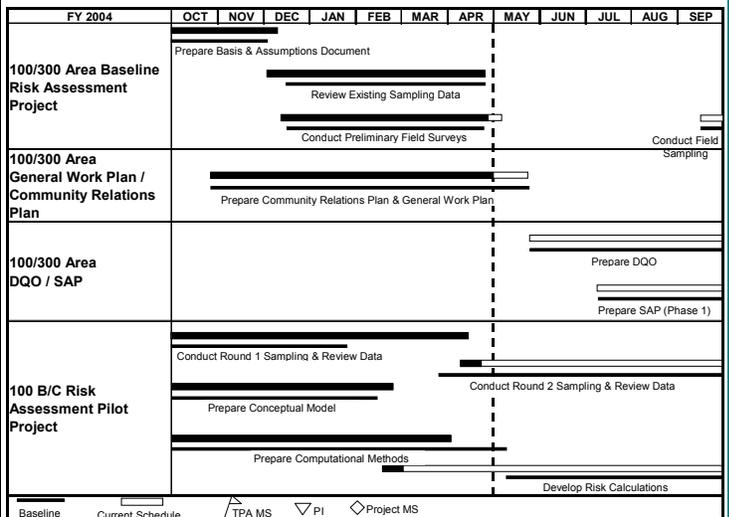
FYTD: (\$121K)

- Re-evaluation of resources required to perform remaining scope.

## TPA MILESTONES:

No FY04 milestones.

## SUMMARY SCHEDULE:



## ISSUES:

None for this reporting period.

# ENVIRONMENTAL RESTORATION PROGRAM MANAGEMENT AND SUPPORT PROJECT

April 2004 Monthly Report

## SAFETY:

FYTD: 3 first aid; 0 recordable-only; 1 lost workday case  
Current month: None

## HIGHLIGHTS:

### *Safety and Health:*

- Safety & Health (S&H) is leading a cross-functional Process Improvement Plan (PIP) analyzing the interaction of the work planning and safety processes. The team includes S&H, Field Support, Engineering and Business functions, and will expand as needed as the PIP proceeds.
- RadCon is procuring state-of-the-art monitoring equipment that will significantly reduce the influence of radon on radiological counting activities.
- Industrial Hygiene developed requirements for beryllium work at 618-7 Burial Ground, and participated in the preliminary design hazards assessment.

### *Technical Services:*

- Completed the Hanford Site Air Operating Permit Annual Compliance Certification Report.
- Completed Phase 1 of the Emergency Planning and Community Right-to-Know Act (EPCRA) Toxic Release Inventory Report for quantities of listed toxic chemicals used during calendar year 2003.
- Completed field activities of the 2004 annual Institutional Controls assessment.
- Completed the quality assurance and technical audit of the Lionville, PA Laboratory; no significant issues.

## UPCOMING KEY ACTIVITIES:

### *Safety and Health:*

- DOE-HQ rescheduled the Voluntary Protection Program (VPP) review to June.

### *Technical Services:*

- EPCRA release/usage information that exceeded the toxic thresholds for CY 2003 due to FH in May.
- Institutional Controls assessment report due to RL in June.
- Site-wide Air Operating Permit Annual Compliance Certification Report due to regulators in July.

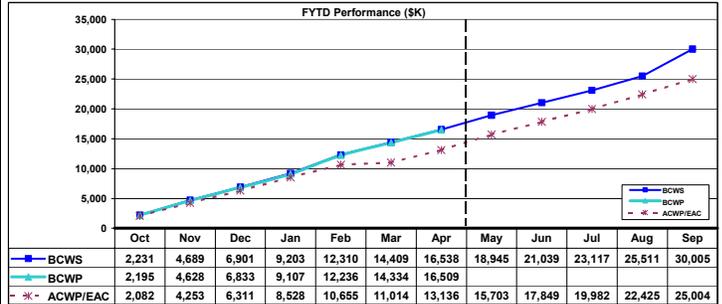
## ASSESSMENTS:

FY 2004 ERC Assessment Data										
Assessments	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Scheduled	14	15	16	19	22	26	29	23	29	20
Scheduled / Performed	11	12	13	16	15	19	21			
Past Due Completed	0	0	0	0	4	1	3			
Unscheduled / Performed	5	4	4	10	5	2	5			
Total Performed	16	16	17	26	24	22	29			

*Significant Finding:* CAR 04-S&H-06. Lack of procedural coordination regarding implementation of hazard identification and control processes.

*Action Planned:* Corrective action plan is in development.

## PERFORMANCE:



- **SV:** (\$29K); (0.2%). N/A
- **CV:** \$3,373K; 20.4%
- **Technical Services:**
  - Underrun in Regulatory Support, Design Engineering, Technology Applications, and Sample and Data Management due to more direct project support.
- **QA&S:**
  - Lost full-time manager and 3 staff, which have not been replaced. Temporary personnel are being used to reduce impacts. Assessment scope has been reduced requiring fewer hours to perform each assessment.
- **Other:**
  - Prior-year rebill accounting adjustments were realized in March. Reduction of estimated performance fee.

## EAC TRENDS:

Current Month: \$309K  
FYTD: (\$5,000K)

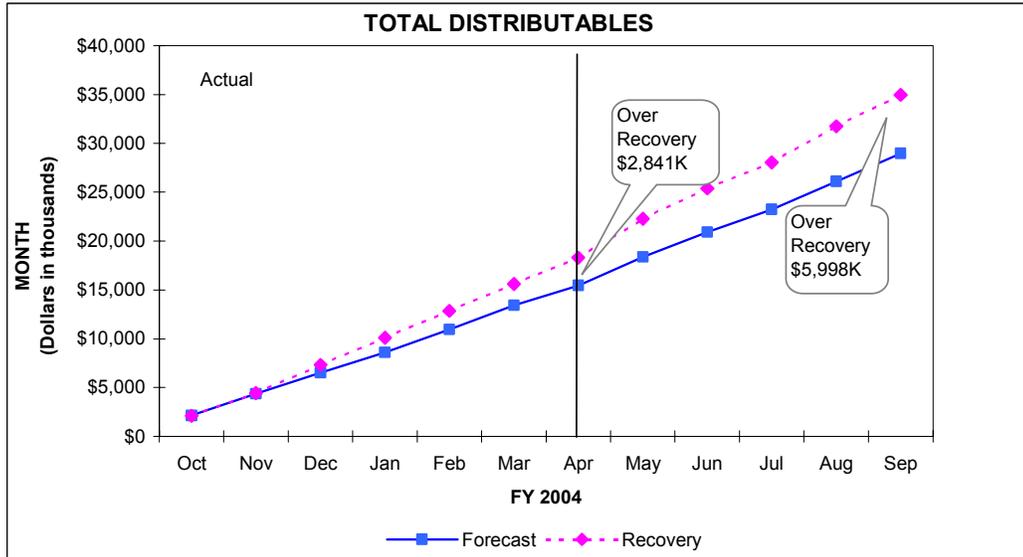
- Prior-year rebill adjustments and FY04 fee forecast reduction.
- Staffing reductions; staff charging more direct project support.

## ISSUES:

None for this reporting period.

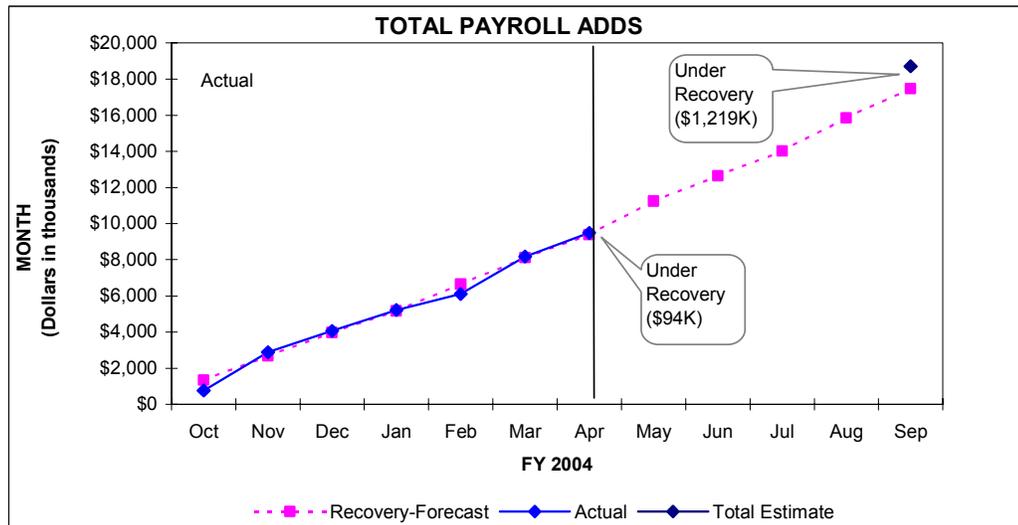
## ENVIRONMENTAL RESTORATION RECOVERY OF DISTRIBUTABLE COST

April 2004 Monthly Report



	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Budget	2,289	2,801	2,242	2,533	2,906	2,680	2,625	3,084	2,545	2,458	3,083	2,914	32,161
Forecast	2,132	2,235	2,143	2,078	2,356	2,495	2,027	2,919	2,543	2,305	2,862	2,875	28,970
Recovery	2,113	2,310	2,908	2,765	2,750	2,751	2,710	3,973	3,101	2,672	3,694	3,222	34,968

Over/Under Recovery													
Monthly	-20	75	765	688	394	256	683	1,054	558	367	831	347	5,998
Cum	-20	55	820	1,508	1,902	2,158	2,841	3,895	4,453	4,819	5,651	5,998	



	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Recovery-Budget	1,410	1,790	1,437	1,448	1,878	1,637	1,616	1,998	1,542	1,490	1,963	1,796	20,006
Recovery-Forecast	1,347	1,329	1,298	1,204	1,476	1,467	1,264	1,860	1,408	1,366	1,832	1,630	17,481
Actual	761	2,117	1,187	1,148	892	2,079	1,295						18,700

Over/Under Recovery													
Monthly	586	-788	111	56	584	-612	-32						
Cum	586	-202	-90	-34	550	-62	-94						-1,219