

Environmental Restoration Contract

Monthly Performance Report

August 2004



Accelerating Cleanup ...



Removing asbestos from steam generator supply lines. N Reactor, now being decommissioned, was the world's first dual-purpose plutonium production reactor.



Department of Energy
Richland Operations Office



Bechtel Hanford, Inc.
Environmental Restoration Contractor



CH2MHILL Hanford Inc.



ENVIRONMENTAL RESTORATION EXECUTIVE SUMMARY

August 2004 Monthly Report

SAFETY:

As of August 31, the ERC worked approximately **905,900** hours since the last lost workday incident, which occurred on October 28, 2003. The ERC has experienced **88%** injury free workdays during FY04. Thus far in 2004, the ERC has experienced an increase in the OSHA Recordable Case Rate compared to the 2003 rate. Current calendar month: 7 first aids; 1 recordable-only

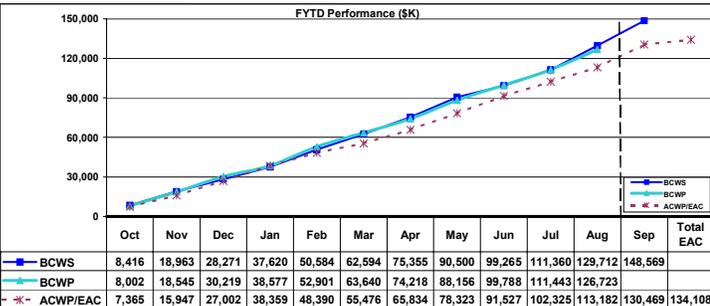
HIGHLIGHTS:

- Completed explosive demolition of H Reactor below-grade gas wing and outer rod room.
- Initiated tasks in preparation of demolition of 6 small buildings in 100-N Area.
- Walked down six 300 Area buildings to identify FY05/06 characterization and D&D scope.
- Initiated backfill of the 116-N-3 Crib, Trench, and pipelines.
- Completed clean overburden removal at 118-K-1 Burial Ground.
- Completed loadout of 118-B-3 with exception of lead.
- Initiated 618-7 Burial Ground investigation.
- Initiated 618-1 and 118-K-1 Burial Grounds final designs.
- Achieved a significant milestone of 5 million tons disposed in ERDF on August 30.
- Received final shipment (14th) of treated uranium waste and disposed in ERDF. This completes TPA Milestone M-16-03I.
- Completed 100-B/C Pilot Round 2 sampling.
- Completed field walkdown for 100-B/C orphan site task.

UPCOMING KEY ACTIVITIES:

- Complete D Reactor SSE and S&M Plan - September.
- Complete H Reactor SSE design - September.
- Complete excavation of 118-B-1 Burial Ground.
- Initiate excavation in 618-3, 316-4, and 600-259.
- Construct ERDF Cells 5/6 crest pad buildings.
- Complete 100/300 Area risk assessment Rev. 0 work plan - September.
- Complete field investigations/historical research for 100-B/C Area.

PERFORMANCE:



- SV:** (\$2,989K); (2.3%). 1802-N asbestos removal delayed due to late BCP approval; late excavator delivery; 300-FF-2 mobilization delay, 100-B/C BG/Remaining Sites, and N Area remediation/ backfill behind schedule.
- CV:** \$13,541K; 10.7%. 300 Area backfill/regrade subcontract award less than plan; favorable settlement for previous site subcontract litigation; fewer resources required for 100 Area S&M; August rate rebill; prior-year rebill accounting adjustments.

EAC TRENDS:

Current Month: (\$5,067K)
FYTD: (\$14,461K)

- Labor underruns for all RA projects; 300 Area backfill/ regrade efficiencies; favorable settlement for previous site subcontract litigation; August rate rebill; prior-year rebill accounting adjustments.

TPA MILESTONES:

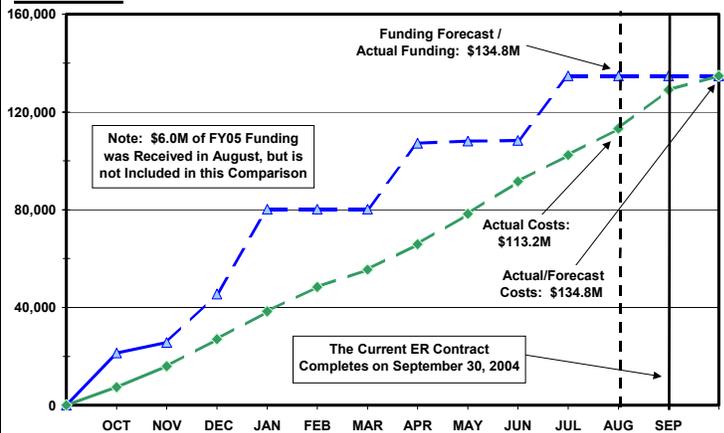
FY04 planned and completed TPA milestones:

- 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/completed in FY04:

- M-16-26F, Complete 100 B/C pipeline backfill (due 2/28/05); *completed 5/7/04.*
- M-16-03I, Complete 618-4 drum treatment (due TBD); *completed 8/4/04.*
- M-93-17, Complete D Reactor ISS (due 12/31/04); *forecast 9/30/04.*

FUNDING:



PERFORMANCE INCENTIVES:

- SPI = 1.12 FYTD through August.
- Remove a Gold Chart radiological facility by 3/1/04. *Demolished above-grade portion of 1304-N Tank. Completed 4/2/04. Tank base demolition will be accomplished along with 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:

- Presence of mercury and fluctuating oxygen levels in 107-N has impacted resin tank sampling; IH is running tests.

ENVIRONMENTAL RESTORATION FACILITIES DECOMMISSIONING PROJECT

August 2004 Monthly Report

SAFETY:

- FYTD: 19 first aids; 3 recordable-only; 3 lost restricted; 0 lost workday; 0 skin contaminations
- Current Month: 5 first aids (2 strains, 3 heat stress)

HIGHLIGHTS:

H Reactor:

- Completed explosive demolition of below-grade gas wing and outer rod room. Subcontractor demobilized on 8/19/04.
- Completed Area 5 stairwell removal.
- Completed 60% SSE design drawings/calculations. Design is on schedule for final submittal by mid-September.

D Reactor:

- Installed major portion of roofing and siding.
- Submitted S&M Plan to RL/regulators for review.

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

- Completed LARADS of EDB.
- Completed demolition/loadout of surround/annulus EDB material.
- Completed ~30% of EDT base demolition.

190-DR Facility:

- Completed required characterization sampling.

1802-N Steam Piping:

- Approaching goal of 70% complete for FY04 asbestos removal activities.

100-N Small Building Demolition:

- Removed fire protection system from facilities.
- Initiated asbestos removal.
- Started removal of lead washers for disposal.

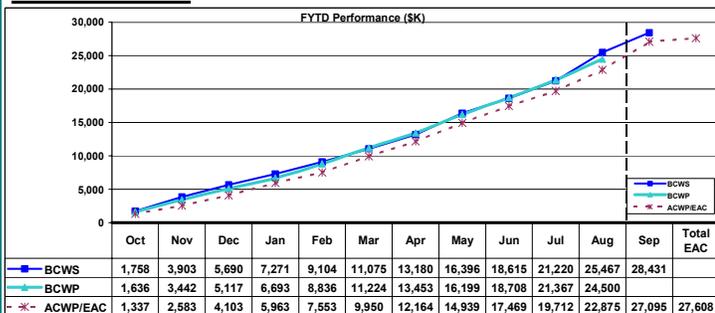
300 Area Building Characterization:

- Walked down 313, 314/314B, 333, 334A, 303-M buildings on 8/9/04 to identify FY05/06 characterization and D&D scope.

UPCOMING KEY ACTIVITIES:

- Complete D Reactor SSE and S&M Plan - September. (see issues)
- Complete H Reactor SSE design - September.
- Complete H Reactor FSB backfill (except pourback areas) - September.
- Complete demolition of 6 small buildings at 100-N - September.
- Initiate transite removal at 190-DR - September.
- Complete turnover (from FH) of 313, 314/314B buildings - September.

PERFORMANCE:



- SV:** (\$966K); (3.8%). Late start for H Reactor gas wing demolition (impacted by weather/equipment delays); late excavator delivery, and 1802-N asbestos removal delayed due to late BCP approval.
- CV:** \$1,625K; 6.6%. August rate rebill; fewer resources required for 100 Area S&M; less project support/oversight required for DR ancillary facilities D&D; excavator less than planned; offset by H Reactor demolition utilizing more resources than planned.

EAC TRENDS:

Current Month: (\$940K)

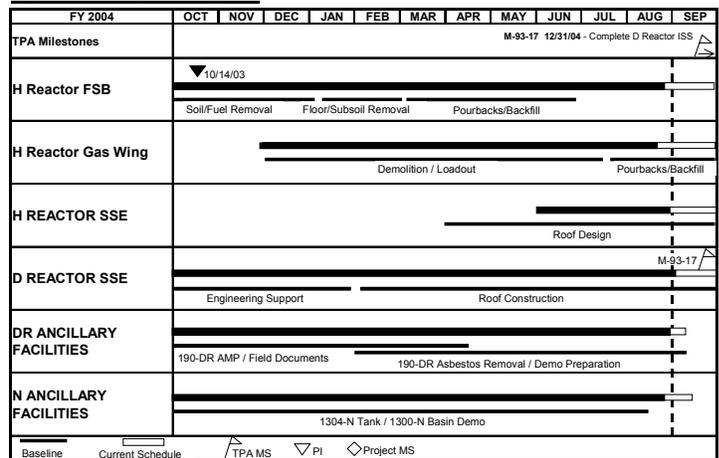
FYTD: (\$823K)

- August rate rebill
- H Reactor increase in explosive demolition Phase 2, and anticipated overtime in to-go schedule. Increase in equipment rentals.
- 117-DR demolition/loadout efficiencies.
- 190-DR asbestos removal less than anticipated.
- D Reactor increased due to subcontractor change orders.

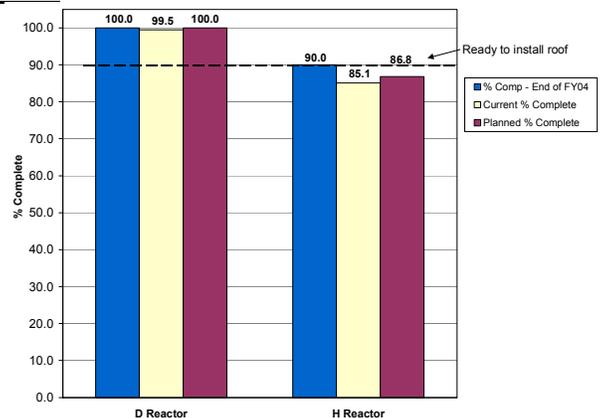
TPA MILESTONES:

- 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 demolition will be accomplished along with 1300-N Basin demolition.**

ISSUES:

- D Reactor SSE completion by end of FY04 is a concern.
- Presence of mercury and fluctuating oxygen levels in 107-N has impacted resin tank sampling; IH is running tests.

ENVIRONMENTAL RESTORATION REMEDIAL ACTION PROJECT

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SAFETY:

FYTD: 4 first aids; 0 recordable; 0 lost workday cases
Current Month: 1 first aid (laceration)

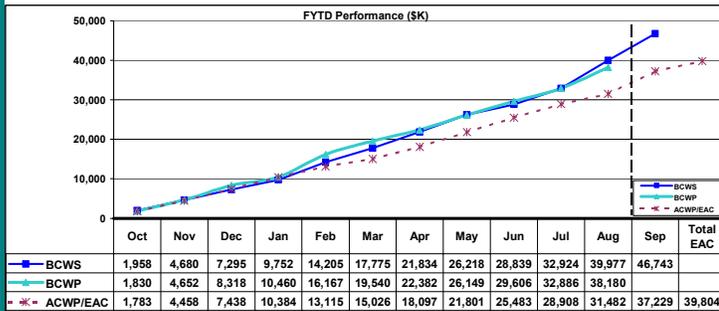
HIGHLIGHTS:

- Initiated backfill of the 116-N-3 Crib, Trench, and pipelines.
- Completed clean overburden removal at the 118-K-1 Burial Ground.
- Continued remediation activities at the 116-K-2 Mile Long Trench, 116-KE-4 Retention Basin, and effluent process pipelines.
- Completed loadout of 118-B-3 with exception of lead.
- Continued excavation and loadout at 118-B-1 BG.
- Characterized mercury tubes from 118-B-1 under Level B and initiated planning for treatment of mercury at the AOC of 118-B-1.
- Established shielded sorting area for "hot items" at 118-B-1.
- Analyzed bids for 100-B/C Remaining Pipelines and Sewers (RPAS) contract.
- Initiated training for 300-FF-2 East Side subcontractor. Initiated work on the south queue.
- Initiated the 618-7 Burial Ground investigation.
- Received regulator approval for seven 100-F Area Remaining Sites confirmatory sample designs.
- Initiated the 100-H Area geophysical survey.
- Initiated 618-1 and 118-K-1 Burial Grounds final designs.
- Submitted 116-C-3 and 618-2 Authorization Basis (AB) documents for RL review.
- Issued 8 Rev. 0 RSVPs.

UPCOMING KEY ACTIVITIES:

- Complete 618-7 field investigation and issue summary report.
- Initiate excavation in 618-3, 316-4, and 600-259.
- Issue 618-1 Burial Ground final design.
- Complete and receive regulator approval for ten 100-F Area confirmatory sample designs.
- Initiate and complete confirmatory sampling efforts for four 100-F Area remaining sites.
- Receive RL safety evaluation reports (SER) for 116-C-3 and 618-2 AB documents and issue final documents.
- Complete excavation of 118-B-1.
- Treat mercury at 118-B-1 and transport to ERDF.
- Complete confirmatory sampling at 118-B-3.
- Award the RPAS subcontract.

PERFORMANCE:



- SV:** (\$1,797K); (4.5%). 300-FF-2 mobilization, B/C Burial Ground and Remaining Sites, and N Area remediation/backfill behind schedule; partially offset by K Area remediation ahead of schedule. Project is currently forecasting \$2,575K schedule variance carryover (100-B/C - \$1.9M; 100-N - \$575K; 100-FR - \$62K).
- CV:** \$6,698K; 17.5%. August rate rebill; 300 Area backfill/regrade subcontract award less than plan; IP2 container efficiency due to blending high and low dose material and re-evaluation of FY04 S/C requirements; favorable settlement for previous site subcontract litigation; labor underruns in all RA projects due to limited resource availability and efficiencies.

EAC TRENDS:

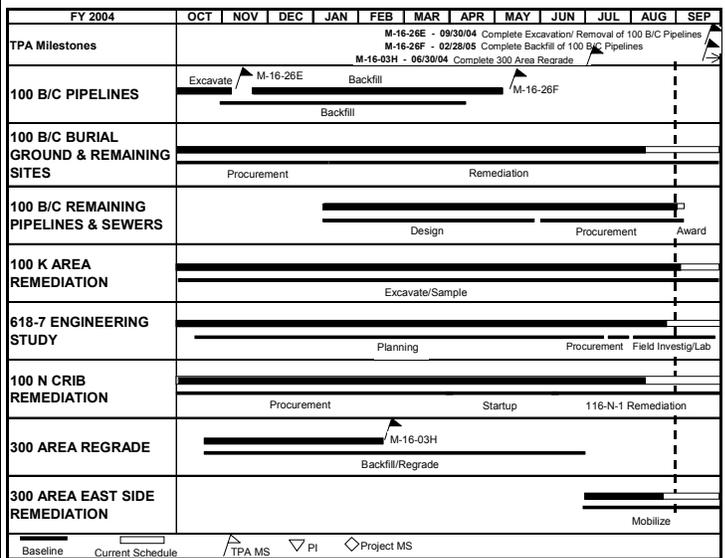
Current Month: (\$1,891K)
FYTD: (\$6,939K)

- August rate rebill ~ \$1M; labor underruns in all project areas; subcontract efficiencies including IP2s, 300 Area backfill/regrade, and favorable settlement for previous site subcontract litigation; waste minimization efforts at B/C site 600-232; B/C waste min offset by significant overruns on 118-B-1 BG resources and volumes.

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); *completed 5/7/04; more than 9 months ahead of schedule.*

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:

Potential fuel located at 118-B-1 BG on 9/14/04. All operations suspended until final determination of spent nuclear fuel is made.

ENVIRONMENTAL RESTORATION WASTE OPERATIONS PROJECT

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SAFETY:

FYTD: 8 first aids; 1 recordable-only; 1 lost restricted; 0 lost workday cases
Current Month: 1 recordable-only (insect bite)

HIGHLIGHTS:

- Received 60,600 tons of waste at ERDF during August; 481,800 tons during FY04; 4,999,500 tons of contaminated material have been disposed in ERDF since operations began in July 1996 (above numbers as of August 29).
- Achieved a significant milestone of 5 million tons disposed in ERDF on August 30. Milestone celebration scheduled for September 22.
- Poured additional mega-macro pads in preparation for lead macro-encapsulation that will take place in September.
- Received final shipment (14th) of treated uranium waste from Permafrix (Tennessee) and placed in ERDF for disposal. This completes TPA Milestone M-16-03I.
- Received approval for final design of the 218-W-4C Trench waste structural vaults.
- Received BCP approval for road-paving work related to removing the steam pipe overpass on ERDF Avenue. Commenced work on a plant forces work review, design and procurement package.
- Received a total of 12 ion exchange modules from Fluor Hanford's (FH) Spent Nuclear Fuel Project during August.
- Began receiving waste consisting of demolished office trailers (the "fruit fly trailers") from FH's B-Laydown area cleanup.
- Completed 8-oz textile and composite placement in Cell 6.
- Began operations layer placement in Cell 6 on August 19.
- Completed Cell 6 crest pad building foundation placement.
- Began primary gravel placement in Cell 5 on August 17.
- Began operations layer placement in Cell 5 on August 31.
- Completed form work for Cell 5 crest pad building.

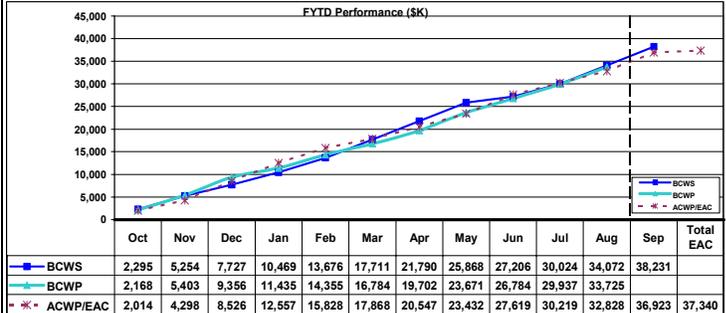
UPCOMING KEY ACTIVITIES:

- Receive full release to proceed with fabrication of IP-2 containers during September.
- Complete operations layer in Cell 6 early September.
- Complete gravel system installation in Cell 5 early September.
- Complete operations layer in Cell 5 in mid-September.
- Construct crest pad buildings.
- Complete documentation for MLLW from 218-4C-W waste.
- Complete ERDF access road improvements by September end.

TPA MILESTONES:

M-16-03I, Complete treatment of drummed waste from 618-4 Burial Ground (due TBD); *completed 8/4/04.*

PERFORMANCE:



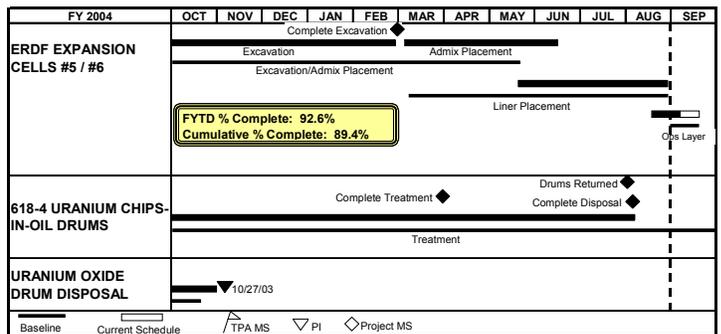
- SV:** (\$347K); (1.0%). Delay in IP-2 container fabrication, will be carried over to FY05.
- CV:** \$897K; 2.7%. August rate rebill; two subcontract accruals understated.

EAC TRENDS:

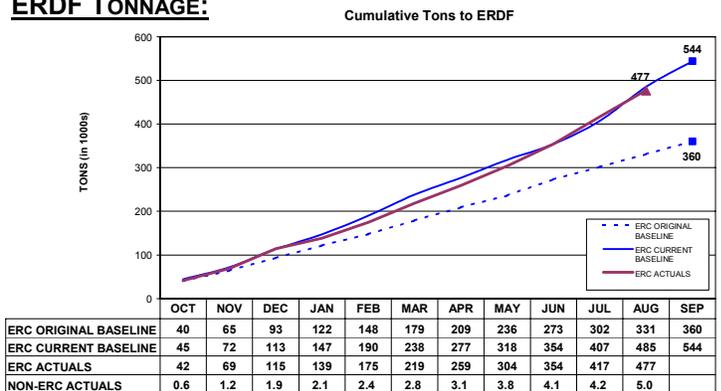
Current Month: (\$1,851K)
FYTD: (\$890K)

- August rate rebill and understated accruals.

SUMMARY SCHEDULE:



ERDF TONNAGE:



ISSUES:

None for this reporting period.

ENVIRONMENTAL RESTORATION RISK ASSESSMENT AND SITE CLOSURE PROJECT

August 2004 Monthly Report

SAFETY:

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

HIGHLIGHTS:

100/300 Area:

- Completed DQO issues interviews with RL, HAB, regulators, Tribes, and Trustees. Incorporated approximately 300 comments from the DQO issues.
- Incorporated comments from the 60-day review of the Work Plan for the 100 Area and 300 Area Component of the RCBRA; 217 comments were received.
- Conducted preliminary evaluations of past stack release on lands between waste sites.

100-B/C Pilot:

- Collected culturally significant plants for isotope/chemical analysis.
- Completed Round 2 sampling.
- Received EPA approval of the 100-B/C Pilot Project Field Sampling Plan for 2004 Sampling, DOE/RL-2004-53, Draft A.

Closure Activities:

- Issued review comments for 600-232 Remaining Sites Verification Package.
- Completed field walkdown for 100-B/C Area for Orphan Site task.
- Continued historical research for 100-B/C transformer sites for the Orphan Site task.
- Completed self-assessment checklists for 117-DR and 105-F site closure documentation.

Other:

- Received laboratory results for the lead-sheathed telecommunications cable asphalt insulating material.

UPCOMING KEY ACTIVITIES:

100/300 Area:

- Complete Rev. 0 work plan in September.
- Hold DQO issues discussion work shop on September 20.

100-B/C Pilot:

- Issue 100-B/C Pilot Project Field Sampling Plan for 2004 Sampling, DOE/RL-2004-53 Rev. 0.

Columbia River Component:

- Begin developing subcontractor work orders for FY05 resources.

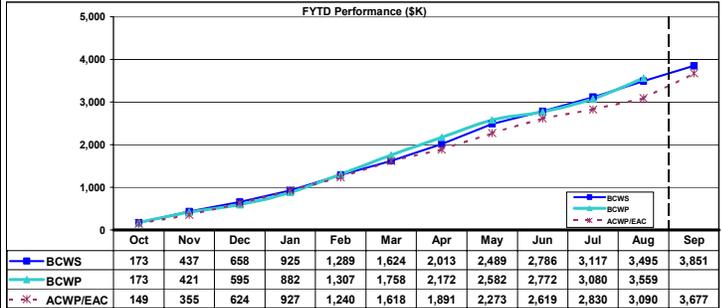
Closure Activities:

- Complete field investigations and historical research for 100-B/C Area.
- Complete inputs for draft of 100-B/C Area Orphan Site report.
- Complete self-assessment of D&D site closure documentation.
- Support design of work flowchart for a CVP-RSVP site closure documentation process.

Other:

- Complete soil sampling for lead-sheathed telecommunications cable, and submit samples for laboratory analysis.

PERFORMANCE:



- SV:** \$64K; 1.9%. B/C Pilot Round 2 sampling has increased resource loading in August and September that will recover the schedule.
- CV:** \$469K; 13.2%. August rate rebill. Columbia River Component Objectives/ Issues Definition and completion of the B&A document required fewer resources to complete due to lessons learned and greater work efficiencies. B/C Pilot Round 2 sampling charges have not been invoiced.

EAC TRENDS:

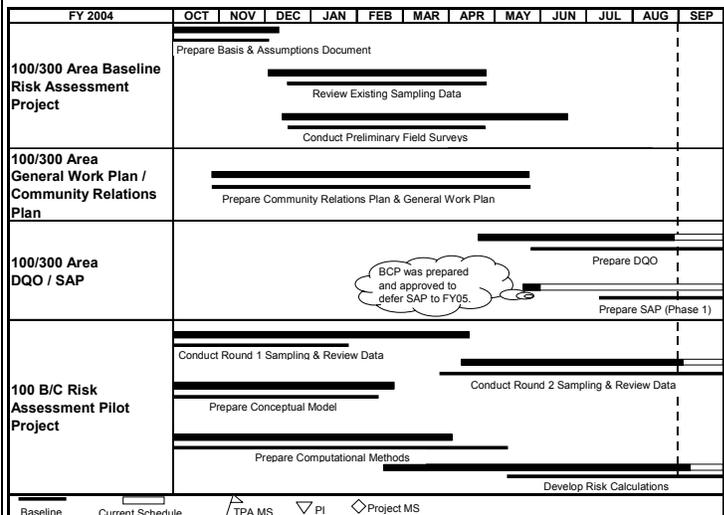
Current Month: (\$60K)
FYTD: (\$174K)

- August rate rebill.
- Columbia River Component B&A document development less than planned.

TPA MILESTONES:

No FY04 milestones.

SUMMARY SCHEDULE:



ISSUES:

None for this reporting period.

ENVIRONMENTAL RESTORATION PROGRAM MANAGEMENT AND SUPPORT PROJECT

August 2004 Monthly Report

SAFETY:

FYTD: 7 first aids; 0 recordable-only; 1 lost workday case
Current month: 1 first aid (abrasion)

HIGHLIGHTS:

Safety and Health:

- RadCon supported the removal of high dose rate debris at the 100-B/C burial ground project. Support included use of advanced technology equipment to analyze materials in-situ in real time.
- The RCF staff supported development of specialized instrumentation to measure tritium for transferability at the 100-B/C remedial action project. The ability to determine transferability on a project will allow for rapid posting decisions.
- Held an Emergency Action Plan training session for the 618-7 Remediation Project Facility Emergency Response Organization.
- Completed the 190-DR Site Specific Health and Safety Plan (SSHASP) and the 190-DR Lead Work Plan. The HASP Team concept was beneficial in creating an effective HASP in a timely manner.
- Completed and submitted the Integrated Environment, Safety, and Health Management System Description (ISMSD), BHI-01199, Rev. 5, and the FY2004 ISMS Annual Report to RL (CCN 116104).
- Formed a task team with Field Safety and Engineering to review and modify the HASP and Hazard Control Documents to support the RL's RFP tour.
- The Hazard Analysis and Control Six-Sigma PIP Team completed the first round of deliverables. These deliverables were the revised ISMSD, and the four MA-02 procedures that explain "How We Do Work." This effort took several months, and is important for how it sets the stage for future improvements to the overall safety program.

Technical Services:

- Submitted the Septic System Annual Report and the Hanford Site Air Operating Permit Semi-Annual Report to RL for transmittal to the Washington State Department of Health.
- Completed the RCRA Mapping and Marking Report which was submitted to Fluor Hanford, Inc. for inclusion in the site-wide report.
- Facilitated Technical Solutions Workshop (EM-23 funded) for evaluating technologies to support decommissioning of high dose rate equipment in the 107-N facility.
- Issued the final Annual Nuclear Criticality Safety Assessment; one observation was noted and corrected immediately.
- Issued for review a draft engineering guide for shop inspection of commodities procured through material/service requisitions.
- Completed the FY05/06 DWP for cost accounts within Technical Services.
- Provided sample and data management support – collected 452 samples, issued 7 sample authorization forms (SAF), closed 2 SAFs, issued 5 sample disposition records (SDR), and validated 1 data package.

UPCOMING KEY ACTIVITIES:

Safety and Health:

- The Hazard Analysis and Control PIP Team will revise procedures affected by changes made to BHI-MA-02 starting with five key procedures in the Safety and Health, Engineering, and Field Support manuals.

Technical Services:

- Submit Septic System Annual Report to Washington State Department of Health by September 30.
- Submit FY04 Mapping and Marking Report to Ecology by September 30.

ASSESSMENTS:

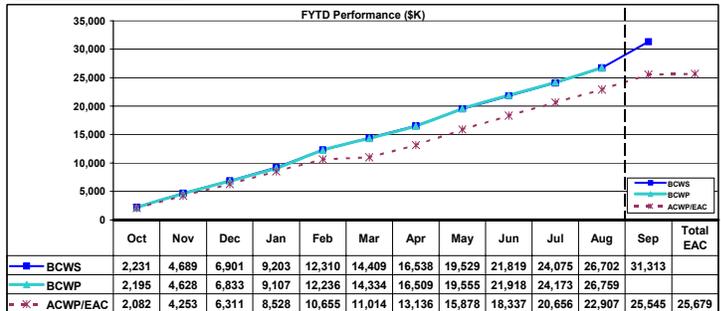
FY 2004 ERC Assessment Data												
Assessments	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Scheduled	14	15	16	19	22	26	29	24	29	19	27	26
Scheduled / Performed	11	12	13	16	15	19	21	22	23	18	22	
Past Due Completed	0	0	0	0	4	1	3	2	1	0	1	
Unscheduled / Performed	5	4	4	10	5	2	5	7	2	5	3	
Total Performed	16	16	17	26	24	22	29	31	26	23	26	

Significant findings identified in August included:

- Inadequate implementation of requirements for subcontractor hot work activities (CARs 04-WO-03, 04-RA-01, 04-FD-10).
- Deficient asbestos removal operations in work performance and work package preparation (CAR 04-FD-11).
- Improper procedure revision (CAR 04-RC-06).
- RadCon Program Implementation Training not being provided to requisite ERC staff members (CAR 04-RC-07).

Corrective action plans are in development.

PERFORMANCE:



- **SV:** \$57K; 0.2%. N/A

- **CV:** \$3,852K; 14.4%

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, of which 2 have recently been replaced. Assessment scope has been reduced requiring fewer hours to perform each assessment.
- **Other:**
 - Prior-year rebill accounting adjustments were realized in March.
 - August rate rebill.

EAC TRENDS:

Current Month: (\$325K)

FYTD: (\$5,634K)

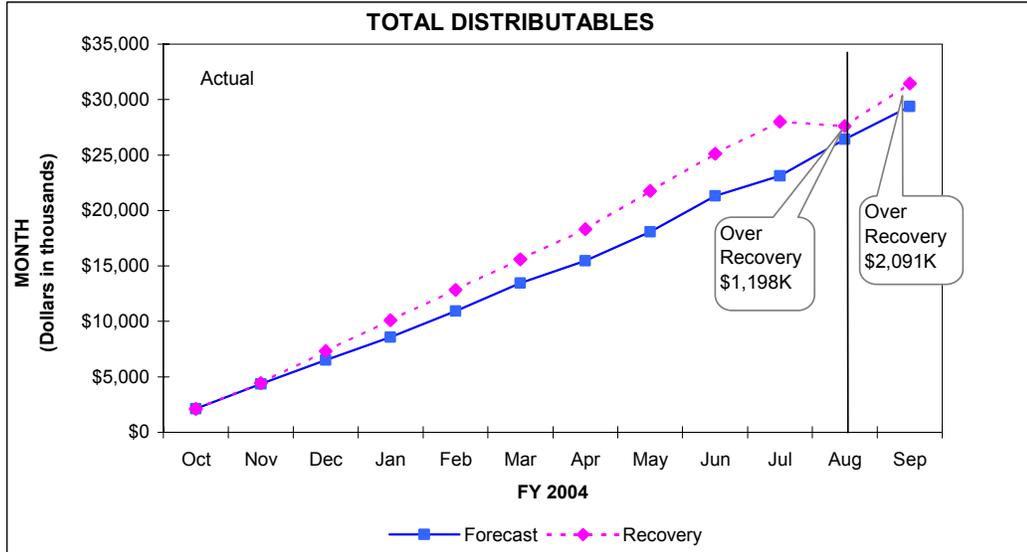
- Prior-year rebill adjustments and FY04 fee forecast reduction.
- August rate rebill.
- Staffing reductions; staff charging more direct project support.

ISSUES:

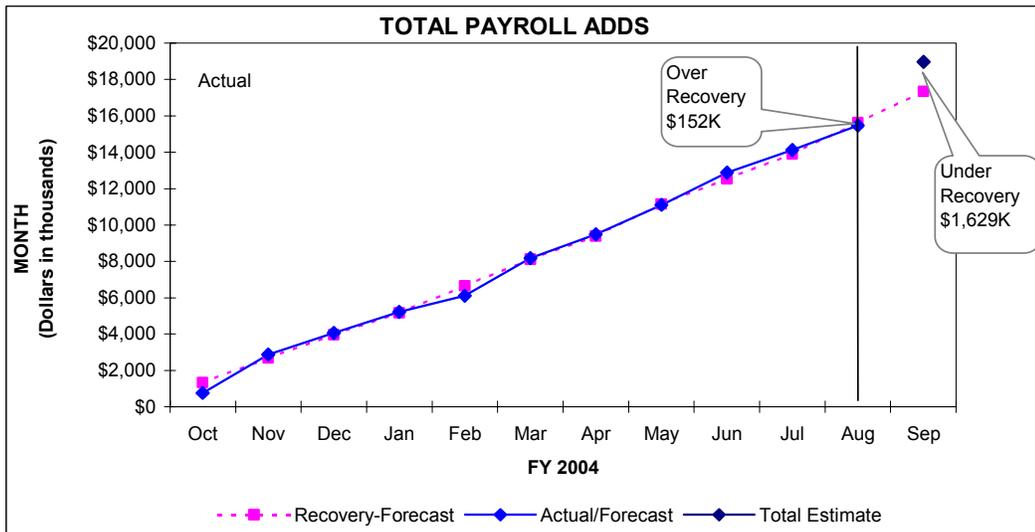
None for this reporting period.

ENVIRONMENTAL RESTORATION RECOVERY OF DISTRIBUTABLE COST

August 2004 Monthly Report



	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
	Act	Fcst											
Budget	2,289	2,801	2,242	2,533	2,906	2,680	2,625	3,143	2,605	2,534	3,173	3,048	32,579
Forecast	2,132	2,235	2,143	2,078	2,356	2,495	2,027	2,608	3,240	1,798	3,296	2,963	29,369
Recovery	2,113	2,310	2,908	2,765	2,750	2,751	2,710	3,449	3,366	2,888	-405	3,856	31,460
Over/Under Recovery													
Monthly	-20	75	765	688	394	256	683	841	126	1,091	-3,700	893	2,091
Cum	-20	55	820	1,508	1,902	2,158	2,841	3,682	3,808	4,898	1,198	2,091	



	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	2,035	1,461	1,606	2,173	2,007	20,500
Recovery-Forecast	1,347	1,329	1,298	1,204	1,476	1,467	1,264	1,767	1,392	1,372	1,702	1,734	17,350
Actual	761	2,117	1,187	1,148	892	2,079	1,295	1,624	1,781	1,243	1,340		18,979
Over/Under Recovery													
Monthly	586	-788	111	56	584	-612	-32	143	-389	129	362		
Cum	586	-202	-90	-34	550	-62	-94	49	-340	-211	152		-1,629