 0078689

# River Corridor/K-Basins Closure
# Tri-Party Agreement Milestone Review
# Meeting Minutes
# June 19, 2008

Approval: _____ Date: 8/21/08
**J. Hedges** (H0-57)
*Ecology IAMIT Representative*

Approval: _____ Date: 8/22/08
**M.S. McCormick** (A5-11)
*DOE IAMIT Representative*

Approval: Craig Cameron for Date: 8/21/08
**N. Ceto** (B1-46)
*EPA IAMIT Representative, Chairperson*

Minutes Prepared by: _____ Date: 8/26/08
T.W. Noland (H8-12)
*Fluor Federal Services, Inc.*

| | | |
|---|---|---|
| Ayres, J.M. | Ecology | H0-57 |
| Bignell, D.T.* | WCH | H4-25 |
| Bilson, H.E. | FH | H8-20 |
| Blackburn J.E.* | WCH | H4-15 |
| Bond, R.* | Ecology | H0-57 |
| Bohnee, G. | NPT | |
| Boyd, A. | EPA | B1-46 |
| Buelow, L.C. | EPA | B1-46 |
| Cameron, C.E. | EPA | B1-46 |
| Ceto, N. | EPA | B1-46 |
| Charboneau, S.L.* | RL | A6-33 |
| Cimon, S.* | ODE | |
| Dagan, E.B.* | RL | A5-11 |
| Donnelly, J.W.* | WCH | H4-22 |
| Engelmann, R.H. | FH | H8-12 |
| Faulk, D.A.* | EPA | B1-46 |
| Fox, M.B. | WCH | B4-24 |
| Franco, J.R.* | RL | A3-04 |
| Gadbois, L.E.* | EPA | B1-46 |
| Guercia, R.F.* | RL | A3-04 |
| Harris, S. | CTUIR | |
| Hedges, J. | Ecology | H0-57 |
| Henry, D. | OOE | |
| Horst, L. | OOE | |
| Jim, R. | Yakama | |
| Johnson, W.F.* | WCH | H4-22 |
| Knox, K.E.* | KCR | |
| LaRue, D.N.* | WCH | H0-20 |
| Lobos, R.A. | EPA | B1-46 |
| McCormick, M.S. | RL | A5-11 |
| Niles, K. | OOE | |
| Noland, T.W.* | FH | H8-12 |
| Peres, M.W. | FH | X3-71 |
| Pettiette, P.L. | WCH | H0-21 |
| Piippo, R.E.* | FH | H8-12 |
| Post, T.C.* | RL | A3-04 |
| Price, J.B.* | Ecology | H0-57 |
| Romine, L.D. | RL | A6-33 |
| Ruscitto, D.G, | FH | A3-06 |
| Russell, R.W.* | ORP | H6-60 |
| Sands, J.P. | RL | A3-04 |
| Skinnarland, E.R. | Ecology | H0-57 |
| Spencer, C.G.* | WCH | H4-24 |
| Stevens, J.M.* | FH | R3-60 |
| Watson, D.J.* | FH | X3-79 |
| Weil, S.R.* | RL | A5-16 |
| Whalen, C.* | Ecology | H0-57 |
| Wilkinson, R.E. | FH | H8-46 |
| Administrative Record | | H6-08 |

*Attendees

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EDMC

**River Corridor/FFTF**
**Tri-Party Agreement Milestone Review**
**Meeting Minutes**
**June 19, 2008**

**River Corridor Closure Project portion of M-16/M-89/M-93/M-94**

DOE distributed a handout summarizing milestone status, accomplishments, planned actions, performance summary, and issues.

**River Corridor Milestone Status**

M-16-67, Submit a Characterization Sampling and Analysis Plan (SAP) for 618-10 and 618-11 Burial Grounds to EPA for approval as a Primary Document

DOE stated that a letter is being prepared to transmit the SAP to EPA.

M-16-56, Complete Interim Remedial Actions for 100-IU-2 and 100-IU-6

EPA stated that DOE and EPA are reviewing the draft TPA change package and are conceptually on agreement for the revised milestone.

M-16-94, Complete Interim Remedial Action at 100-B/C Area (not covered by M-16-45)

DOE stated that WCH has an action to schedule a workshop with EPA, Ecology, DOE and Fluor Hanford to identify the issues and determine how the schedule will be developed for 100-C-7.

**River Corridor Significant Accomplishments - For Last 3 Months**

M-16 - Remedial Action/Risk Assessment

Ecology expressed its ongoing concern regarding the regulatory strategy for the reactors in the final RODs for the reactor areas. DOE responded that they are looking into this.

**River Corridor Significant Actions Planned - For Next 3 Months**

Other

EPA expressed concern regarding funding for ERDF excavation. DOE responded that the contract minimum funding will be provided July 1, 2008, which will assure continued activity at ERDF.

DOE reported on the planned demolition of the 184-N and 116-N stacks on Saturday, June 21, 2008.

**K Basins Remediation - M-34 Milestone Review**

DOE provided a handout that was used to discuss the M-34 milestone status, significant accomplishments, upcoming activities, KBC project risk status, and total project baseline.

EPA inquired about transition of K-Basins activity to the new PRC contractor and DOE provided a generic discussion of the transition process.

Tri-Party Agreement

**June 19, 2008**

## River Corridor/K-Basins Closure Milestone Review

| | |
|---|---|
| Place: | EPA Conference Room, 309 Bradley Boulevard, Suite 115, Richland, WA |
| Time: | 10:00 am - 11:00 am |
| Chairperson: | Nick Ceto |

### Agenda

| | | |
|---|---|---|
| 10:00 am | M-16-00 | Complete Remedial Actions |
| | M-93-00 | Disposition of Surplus Reactors |
| | M-94-00 | 300 Area Surplus Facilities |
| | M-89-00 | 324 Bldg. Closure of MW Units |
| 10:45 am | M-34-00 | K-Basins Closure Project |
| 11:00 am | Adjourn River Corridor Milestone Review | |

*Tri-Party Agreement Major Milestone Management Review*
*June 19, 2008*

| Name | Organization | Mail Stop | Phone |
|---|---|---|---|
| Terry Noland | Fluor | H8-12 | 376-6574 |
| Kathy Knox | Knox Court Reporting | | 946-5535 |
| Ron Morrison | YAHSGS | | 376-2994 |
| Jack Donnelly | WCH | H4-22 | 372-2043 |
| Dale Black | FH | H8-12 | 376-8740 |
| DEENA LaTRUE | WCH | | 375-9431 |
| JEB BLACKBURN | WCH | | 372-9958 |
| Rick Engelmann | FH | H8-12 | 376-7485 |
| Tina M. Crane | FH | | 376-9789 |
| Rick Bond | Ecology | | 372-7885 |
| Alicia Boyd | EPA | | 376-4919 |
| Wayne Johnson | WCH | | 372-9664 |
| JANE HEDGES | ECY | | 372-7905 |
| Cheryl Whalen | ECY | | 372-7972 |
| John Price | ECY | | 372-7921 |
| Laura Below | EPA | | 376-6466 |
| Dave Einan | EPA | | 376-3883 |
| Larry Gadbois | EPA | | 376-9884 |
| [illegible] | FH | | 373-3285 |
| Jim Rasmussen | YAHSGS | | 376-0304 |
| Joe Franco | DOE RL | | 376 6628 |
| R F Guercia | RL | | 376-5454 |
| SHELLEY CIMON | OREGON | | (541) 240-0161 |
| Chris Smith | RL | | 372-1544 |
| Ellen Dayan | RL | | 376-3811 |
| DAVID KUSELITZ | FH | | 376-1998 |
| David Watson | FH | | 373-3250 |
| Roger Quintero | DOE-RL | | 373-0421 |

RIVER CORRIDOR CLOSURE PROJECT

# TPA Quarterly Review

For Period: March - May 2008

## River Corridor Milestones:

| | |
|---|---|
| M-16 | M-93 |
| M-89 | M-94 |

Tri-Party Agreement

U.S. Department of Energy
U.S. Environmental Protection Agency
Washington State Department of Ecology

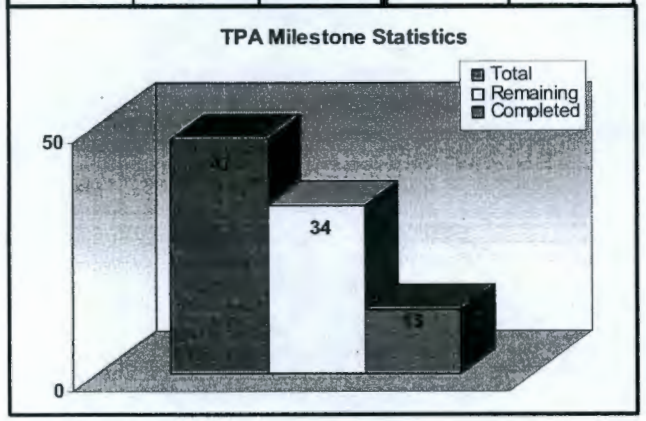
**June 19, 2008**

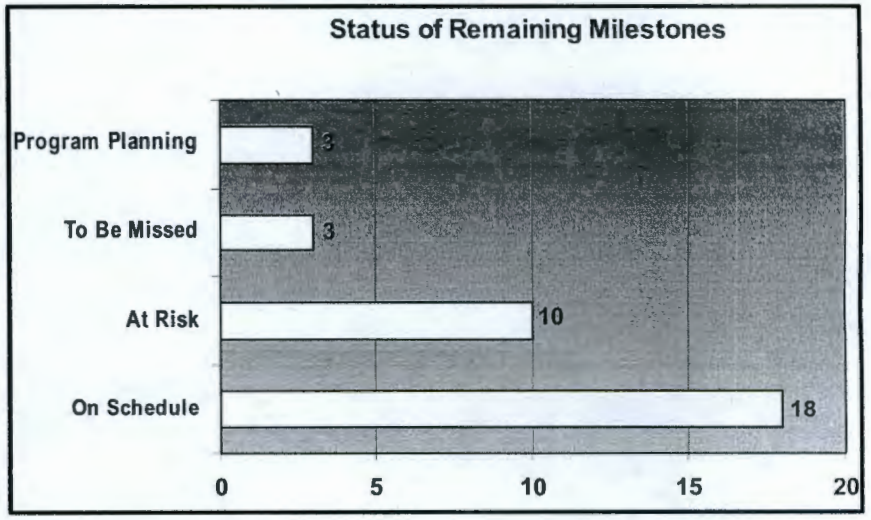
*Protecting the Columbia River*

E0803018

**TPA Milestone Statistics**
(Includes Targets and Commitment Milestones)

| Total | Remaining | Completed | Completed On | Completed Ahead |
|---|---|---|---|---|
| 47 | 34 | 13 | 2 | 11 |




## Quarterly Summary (March - May 2008)

- Completed one TPA milestone on 3/13/08 - **M-94-06**, Complete Demolition/Loadout of 3 of 19 Buildings (305B, 306E, 333) in 300 Area (due 6/30/08).

- TPA change requests:
  -- No change requests were approved during this reporting quarter.

## TPA Milestone Status Report

***Status as of: May 31, 2008***

| | TPA MS No. | Compliance Date | Milestone Title | Status | Comments |
|---|---|---|---|---|---|
| | **M-16 Milestones - Remedial Action / Risk Assessment** | | | | |
| 1 | M-16-45 | 12/31/2007 | Complete Interim Remedial Action for 100-B/C Area | COMPLETE | Milestone completed on 12/30/07. |
| 2 | M-16-67 | 06/30/2008 | Submit a Characterization Sampling and Analysis Plan (SAP) for 618-10 and 618-11 Burial Grounds to EPA for Approval as a Primary Document | On Schedule | RL provided Notice to Proceed on 2/26/08. SAP will be submitted to RL and EPA mid-June to meet milestone. |
| 3 | M-16-73 | 09/30/2008 | Initiate Substantial and Continuous Soil Remediation at 618-1 Burial Ground | On Schedule | |
| 4 | M-16-50 | 10/31/2008 | Initiate Remedial Actions for Remaining Waste Sites for 100-H Area | On Schedule | Excavation scheduled to start mid-July. |
| 5 | M-16-49 | 12/31/2008 | Complete Interim Remedial Actions for 100-F Area | On Schedule | |
| 6 | M-16-56 | 12/31/2008 | Complete Interim Remedial Actions for 100-IU-2 and 100-IU-6 | To Be Missed | A draft TPA change package was prepared and transmitted 2/28/08 to RL for review. RL/EPA met to discuss change package; a revised package is under development by RL and EPA. 110-day letter to be submitted when a more definitized number of waste sites expected to be done is ascertained. |
| 7 | M-16-61 | 12/31/2008 | Complete Interim Remedial Actions for Remaining High Environmental Priority 300-FF-2 Waste Sites (618-2, 618-3, 618-5, and 618-7) | At Risk | Sites 618-2, 618-3, 618-5 were completed under M-16-60 (12/28/06). Remediation of 618-7 began in December 2007. Milestone may be impacted due to uncertainties with number/content of drums in 618-7 Burial Ground. |
| 8 | M-16-58 | 04/30/2009 | Initiate Soil Remediation at K-West Basin | To Be Missed | See M-16-57 status; M-16-58 dependent on M-34 progress. |
| 9 | M-16-52 | 07/31/2009 | Initiate Response Actions for Remaining Waste Sites for 100-K Area Including Closure of the 1706-KE Waste Treatment System in Accordance with Section 5.5 of the Agreement Action Plan | At Risk | RL coordinating with K-Basin schedules. |
| 10 | M-16-57 | 10/31/2009 (compliance date) ——— 08/31/09 (Settlement Agreement date) | Initiate K-East Basin Soil Remediation | At Risk | RL coordinating with K-Basin schedules. |
| 11 | M-16-94 | 12/31/2009 | Complete Interim Remedial Actions at 100-B/C Area (not covered by M-16-45) | At Risk | RL working on design at 100-C-7 to dig to 35 feet. Additional technology evaluations for soil treatment using calcium polysulfite are being discussed and a path forward needs to be developed. |
| 12 | M-16-51-T01 | 12/31/2009 | Complete Excavation of 1 of 5 100-H Burial Grounds (118-H-1, 118-H-2, 118-H-3, 118-H-4, or 118-H-5) | On Schedule | Mobilization. |
| 13 | M-16-64 | 09/30/2010 | 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) (see Table 2 in TPA CR M-16-01-06) | On Schedule | Initial planning only. |

## TPA Milestone Status Report

*Status as of: May 31, 2008*

| | TPA MS No. | Compliance Date | Milestone Title | Status | Comments |
|---|---|---|---|---|---|
| 14 | M-16-51-T02 | 12/31/2010 | Complete Excavation of a Total of 3 of 5 100-H Burial Grounds (118-H-1, 118-H-2, 118-H-3, 118-H-4, or 118-H-5) | On Schedule | |
| 15 | M-16-51 | 12/31/2011 | Complete Interim Remedial Actions for 100-H Area | On Schedule | |
| 16 | M-16-47 | 12/31/2011 | Complete Interim Remedial Actions for 100-D Area | On Schedule | |
| 17 | M-16-74 | 09/30/2012 | Complete Interim Remediation (to include excavation, loadout, closeout sampling, backfill, and revegetation) for all 300 Area "Inside the Fence" Waste Sites North of Apple Street, Except that for the 300-RLWS, 300-15, 300-4, 300-268, and 300-123 Waste Sites, Remediation Need Only Be Completed Through Excavation and Loadout | On Schedule | Initial planning only. |
| 18 | M-16-53 | 12/31/2012 | Complete Interim Response Actions for 100-K Area | At Risk | Potential impact due to K-Basin schedule/milestones. See M-16-57 status also. NOTE: Under TPA CR M-34-04-01 -- 100-K Area remedial action is not complete until K-Basin sludge shipments for disposal off site have taken place. |
| 19 | M-16-55 | 12/31/2012 | Complete Interim Response Actions for 100-N Area | At Risk | |
| 20 | M-16-62 | 12/31/2012 | Complete Interim Remedial Actions for the Following 300-FF-2 Waste Sites: 300-8, 300-18, 300-VTS, 316-4, 600-47, 600-259, 618-2, 618-3, 618-5, 618-7, 618-8, and 618-13 (see Table 1 in TPA CR M-16-01-06) | On Schedule | |
| 21 | M-16-00A | 12/31/2012 | Complete All Interim Response Actions for the 100 Areas | At Risk | Remediation of high priority waste sites continues in order to be protective of groundwater and river, meet current milestones in other areas, and effectively utilize existing resources. K-Basin schedule may cause impact. |
| 22 | M-16-75 | 09/30/2013 | Initiate Substantial and Continuous Remediation on the 309 Facility Dedicated Radioactive Liquid Waste Sewer (300 RLWS) and the 300 Area Process Sewer (300-15) Systems | On Schedule | Preplanning stage. |
| 23 | M-16-69 | 09/30/2015 | Complete All Interim 300 Area Remedial Actions to Include Confirmatory Sampling of All Candidate Sites Listed in 300-FF-2 ROD (except for 618-10 and 618-11 Burial Grounds) | At Risk | PNNL plans to retain occupancy of some 300 Area buildings beyond 2015, which will also impact remediation of any waste sites under the buildings. |
| 24 | M-16-00B | 09/30/2018 | Complete All Interim 300 Area Remedial Actions Including 618-10 and 618-11 Burial Grounds | At Risk | PNNL plans to retain occupancy of some 300 Area buildings beyond 2015, which will also impact remediation of any waste sites under the buildings. |
| 25 | C-16-06C | TBD | Submit a Schedule and Establish Commitments to Complete the Remedial Investigation/Feasibility Studies and Proposed Plans in Support of the Final ROD for the 100 Area | Program Planning | RL, EPA, and Ecology are discussing schedules. |
| 26 | C-16-06D | TBD | Submit a Schedule and Establish Commitments to Complete the Remedial Investigation/Feasibility Studies and Proposed Plans in Support of the Final ROD for the 300 Area | Program Planning | RL, EPA, and Ecology are discussing schedules. |

## TPA Milestone Status Report

***Status as of: May 31, 2008***

| | TPA MS No. | Compliance Date | Milestone Title | Status | Comments |
|---|---|---|---|---|---|
| | **M-89 Milestones - 324 Bldg Non-Permitted MW Units Closure** | | | | |
| 1 | M-89-00 | 09/30/2010 | Complete Closure of Non-Permitted Mixed Waste Units in 324 Building REC B-Cell, REC D-Cell, and High Level Vault | On Schedule | Planning only. |
| | **M-93 Milestones - Reactors Final Disposition** | | | | |
| 1 | M-93-22 | 09/30/2011 | Complete 105-KE and 105-KW Reactor Interim Safe Storage | To Be Missed | Stop-work order was issued for both KE and KW work. Milestone will be missed based on the RL schedule provided in M-34-40-T02. |
| 2 | M-93-20 | 09/30/2012 | Complete 105-N Reactor Interim Safe Storage | On Schedule | Milestone is on schedule, but may be impacted by anticipated FY08/09 funding. Contractor bid evaluations have been completed. Bid package planned to be submitted to RL mid-June for approval. Based on the contractor bid schedules, the milestone should still be met if full funding is received in FY09, and contract is awarded by October 1, 2008. |
| 3 | M-93-00 | TBD | Complete Final Disposition of All 100 Area Surplus Production Reactor Buildings. 100 Area surplus production reactor buildings consist of the following: 105-D, 105-DR, and 105-H, 105/109-N (Ecology lead), and 105-B, 105-C, 105-F, 105-KE, and 105-KW (EPA lead). | Program Planning | |
| | **M-94 Milestones - 300 Area Surplus Facilities Disposition** | | | | |
| 1 | M-94-06 | 06/30/2008 | Complete the Selected Removal and/or Remedial Actions that are Selected for 3 of the Following 19 High Priority Facilities: 305B, 306E, 306W, 307 Retention Basins, 308, 309, 321, 323, 324, 324B, 325, 326, 327, 329, 333, 340, 3706, 307 Trench, and 3720; to include the 333 Facility | COMPLETE | Bldg 305B completed in Sep 2006. 306E above-grade (AG) demolition completed 12/22/06; AG loadout completed 5/3/07. Bldg 333 AG demolition was completed 9/28/06; AG loadout completed 2/23/08 with the removal of the Loewy press. 306E and 333 deferral forms signed on 3/13/08. RL sent completion letter to EPA on 3/14/08 (08-AMRC-0138). |
| 2 | M-94-07 | 12/30/2009 | Complete the Selected Removal and/or Remedial Actions that are Selected for 6 of the Following 19 High Priority Facilities: 305B, 306E, 306W, 307 Retention Basins, 308, 309, 321, 323, 324, 324B, 325, 326, 327, 329, 333, 340, 3706, 307 Trench, and 3720; to include the 306E, 306W, 3720, and 305B Facilities | On Schedule | Bldgs 305B, 306E, 333 completed under M-94-06 (March 2008). In addition, Bldg 3706 above-grade (AG) demolition completed 6/3/07; AG loadout completed 7/19/07. Bldg 306W AG demolition completed 9/28/07; AG loadout completed 12/15/07. Bldg 3720 AG demolition completed 7/17/07; below-grade demolition/loadout scheduled for August 2008. |
| 3 | M-94-03 | 09/30/2010 | Complete Disposition of Following Surplus Facilities: 303M, 332, 333, 334, 334A, 3221, 3222, 3223, 3224, 3225, 324, 324B, 327 (see TPA CH M-94-01-01, Table 1) | On Schedule | 3221,3222,3223,3224 demolished May 2002 by Fluor Hanford. 334 and 3225 (November 2005), 334A (December 2005), 303M (June 2006), and 333 (February 2008) demolished/loaded out by WCH. 303M pad remains. Sequenced with M-89-00. |
| 4 | M-94-08 | 12/31/2011 | Complete the Selected Removal and/or Remedial Actions that are Selected for 12 of the Following 19 High Priority Facilities: 305B, 306E, 306W, 307 Retention Basins, 308, 309, 321, 323, 324, 324B, 325, 326, 327, 329, 333, 340, 3706, 307 Trench, and 3720 | On Schedule | See M-94-06/M-94-07 status. |
| 5 | M-94-09 | 09/30/2013 | Complete the Selected Removal and/or Remedial Actions that are Selected for 15 of the Following 19 High Priority Facilities: 305B, 306E, 306W, 307 Retention Basins, 308, 309, 321, 323, 324, 324B, 325, 326, 327, 329, 333, 340, 3706, 307 Trench, and 3720; to include the 323 Facility and the 307 Trench | On Schedule | See M-94-06/M-94-07 status. |
| 6 | M-94-00 | 09/30/2015 | Complete Disposition of 300 Area Surplus Facilities to be Defined as the 220 Facilities Listed in the Hanford River Corridor Closure Contract Solicitation #DE-RP06-04RL14655 | At Risk | PNNL plans to retain occupancy of some 300 Area buildings beyond 2015, which will also impact remediation of any waste sites under the buildings. Some of the 220 facilities are no longer surplus and need to be removed from this milestone. |

# *Significant Accomplishments – For Last 3 Months:*

Placing Excavated Drum from 618-7 into Drum Penetrating Facility

126-D-2 Excavation

384 High Bay Demolition

## M-16 – Remedial Action / Risk Assessment:

- Completed demobilization at 100-B/C Area.
- Completed shipment of 13 spent nuclear fuel (SNF) pieces from 100-D to K-Basins.
- Completed backfill of all 100-F Area excavated sites.
- Completed demobilization of all equipment and personnel at 100-F.
- Shipped 100-F anomaly waste to ERDF.
- Awarded 100-H Area burial grounds and remaining sites remediation subcontract on 4/15/08.
- Continued actions to place 118-K-1 site in a safe shutdown condition.
- Continued excavation of 300 Area 618-7 Burial Ground; 319 drums processed.
- Submitted 618-10/11 non-intrusive sampling and analysis plan (SAP) on 5/6/08 to RL for review.
- Completed waste characterization sampling at 600-149 Small Arms Range site.
- Approved 9 waste site closure documents during reporting period.
- Completed development of the *Remedial Investigation Work Plan for Hanford Site Releases to the Columbia River* (Internal Draft).
- Continued Draft B development of the *River Corridor Baseline Risk Assessment (RCBRA) Report, Source and Groundwater Component.*
- Continued working with the Tri-Parties, Fluor Hanford, and WCH to further refine the path forward for the final River Corridor ROD strategy.
- Initiated data processing of the Light Detection and Ranging (LiDAR) and orthophotography data in support of the Inter-Areas orphan site evaluations.

## M-89 – 324 Bldg Non-Permitted Mixed Waste Units Closure:

- Relocated personnel out of the 324 building in order to facilitate deactivation activities in the administrative portions of the building. Conducted planning and characterization activities to begin hazardous material removal.

## M-93 – Reactors Final Disposition:

- Continued 109N subcontractor deactivation and hazardous material removal.
- Continued 105N office space hazardous material removal and asbestos abatement. Commenced subcontractor scaffold erection and asbestos abatement.
- Received 105N/109N demolition/safe storage enclosure bid proposals.

## M-94 – 300 Area Surplus Facilities Disposition:

- Completed deactivation and decommissioning of 12 buildings (323, 337B, 3718, 3718A, 3718B, 3718C, 3718G, 3718N, 3128, 3721, 3727, 3728).
- Completed demolition of 3503A and 384; loadout continuing.
- Completed 327 Basin draining.
- Submitted 327 Hot Cell One Time Request for Shipping, and Final Hazard Categorization to RL for review/approval.

## *Significant Accomplishments – For Last 3 Months (cont'd):*

### Other:

- Received approval of ERDF Waste Material Management Plan to allow utilization of compactors and 1:1 soil-to-debris ratio, and a 2:1 ratio for predominantly steel. Implementation occurred 4/21/08.
- Completed ERDF Cells 7/8 excavation activities on 5/21/08.
- Completed sealed double ring infiltrometer (SDRI) testing for ERDF Cells 7/8. RL and EPA concurred that ASTM requirements were met which allowed admix placement to begin.
- Through May 2008, more than 1.3 million tons of contaminated material have been disposed in ERDF since WCH assumed River Corridor cleanup responsibilities (8/27/05). More than 7.4 million tons of waste have been disposed since ERDF operations began in July 1996.

Preparing ERDF Cells 7/8 Admix Placement Subgrade

## *Significant Actions Planned – For Next 3 Months:*

### M-16 – Remedial Action / Risk Assessment:

- Initiate characterization of suspect SNF recently discovered at 100-D Area.
- Prepare CVPs/RSVPs for various 100-F waste sites.
- Initiate 100-H remediation activities at 118-H-1.
- Complete 118-K-1 project shutdown and closeout activities.
- Complete 600-149 Small Arms Range excavation.
- Continue excavation of 618-7 trenches.
- Submit 618-10/11 SAP to EPA mid-June.
- Complete/distribute *RCBRA Report, Source and Groundwater Component*, Draft B, for RL review.
- Distribute the *Remedial Investigation Work Plan for Hanford Site Releases to the Columbia River*, Draft A for Tri-Party and stakeholder review. Hold comment disposition working sessions with the Tri-Parties.
- Coordinate with Fluor Hanford's hydraulic hammer rig investigation at 100-D Area per interface agreement to analyze the vadose zone for chromium.
- Issue the *100-D Area Orphan Sites Evaluation Report*.

### M-89 – 324 Bldg Non-Permitted Mixed Waste Units Closure:

- Conduct hazardous material removal.

### M-93 – Reactors Final Disposition:

- Complete 109N subcontractor hazardous material removal.
- Continue 105N hazardous material removal and asbestos abatement.
- Submit 105N demolition/safe storage enclosure bid package to RL for approval.

### M-94 – 300 Area Surplus Facilities Disposition:

- Complete demolition of 321 Complex and 323 Mechanical Properties Laboratory.
- Complete loadout of 384 Power House.
- Excavate 327 basement ramp for hot cell removal.

### Other:

- Treat lead-contaminated soil from 618-7 Burial Ground.
- Continue placing admix layer in ERDF Cells 7/8.
- Begin Cells 7/8 geosynthetic liner installation.

# PERFORMANCE SUMMARY

## Contract Inception (8/25/05) through May 2008

**($K)**

| | IPB | | CUMULATIVE | | | SCHEDULE VAR | | COST VAR | |
|---|---|---|---|---|---|---|---|---|---|
| | BCWS | EAC | BCWS | BCWP | ACWP | $ | SPI | $ | CPI |
| D4 | 630,967 | 630,967 | 162,023 | 191,619 | 122,950 | 29,596 | 1.18 | 68,669 | 1.56 |
| Reactor ISS | 115,988 | 115,988 | 28,283 | 18,621 | 13,296 | -9,662 | 0.66 | 5,325 | 1.40 |
| Field Remediation | 432,865 | 432,865 | 146,340 | 152,365 | 134,114 | 6,025 | 1.04 | 18,251 | 1.14 |
| Waste Operations | 260,237 | 260,237 | 58,327 | 69,540 | 91,067 | 11,213 | 1.19 | -21,527 | 0.76 |
| ESFC | 57,410 | 57,410 | 14,218 | 23,875 | 14,989 | 9,657 | 1.68 | 8,886 | 1.59 |
| Mission/General Support | 323,259 | 323,259 | 101,867 | 101,867 | 114,518 | 0 | 1.00 | -12,651 | 0.89 |
| Transition | 3,979 | 3,979 | 3,979 | 3,979 | 3,752 | 0 | 1.00 | 227 | 1.06 |
| Undistributed Budget | 7,128 | 7,128 | | | | | | | |
| Contingency | 221,664 | 221,664 | | | | | | | |
| **TARGET COST TOTAL** | **2,053,496** | **2,053,496** | **515,037** | **561,865** | **494,686** | **46,828** | **1.09** | **67,179** | **1.14** |

## Schedule Variance (PMB): $46,828K

- Acceleration of 300 Area and 100-N Area building demolitions.
- Delayed approval/award of 105N demolition/safe storage enclosure subcontract.
- Stop-work at KE/KW Reactor ISS (RL direction).
- 100-F, 100-D, 100-B/C waste site accelerations/completions.
- 100 Area remediation delays due to discovery of chromium, anomalous waste, nuclear safety issues, quantity growth; delay at 618-7 Burial Ground due to high risk nature of the scope.
- Acceleration of Inter-Area flight surveys in support of orphan site evaluations.

## Cost Variance (PMB): $67,179K

- Significant underruns experienced in 300 Area building characterization, deactivation, and demolition activities.
- Significant underruns in 300 Area utility charges and S&M activities.
- Favorable cost experienced to-date in remediation of burial grounds at 100-F, 100-D, and 100-B/C Area waste sites, and in confirmatory sampling. Partially offset by increased costs associated with 118-K-1 readiness, slow production due to hard-to-detect radionuclides and anomalies and interim shutdown costs; 618-10/11 design solution submittal; and significant project support costs at all active dig sites.
- ERDF cost overruns in transport, treatment, and disposal of waste due to operational issues; overrun in purchase and leasing of additional equipment; and transportation and disposal subcontractor mobilization.
- Efficiencies realized during Inter-Areas sampling and flight surveys, preparation of Integrated Strategy for Cleanup Decisions, and orphan sites evaluations.
- RadCon, Industrial Safety, and Environmental Support services greater than planned.
- Increased Employee Concerns Program, conduct of operations, and regulatory interface resources.

# RCC Issues

- **M-16-56 - Complete Interim Remedial Actions for 100-IU-2 and 100-IU-6 (due 12/31/08).** Milestone will be missed.
  **Status:** At regulator request, remediation of the 600-149 waste site and plutonium criticality lab are high priority sites. A draft TPA change package was prepared. EPA provided comments to RL. A revised package is under development by RL and EPA.

- **M-16-94 - Complete Interim Remedial Actions at 100-B/C Area (not covered by M-16-45) (due 12/31/09).** Chromium contamination.
  **Status:** RL working on design at 100-C-7 to dig to 35 feet. Additional technology evaluations for soil treatment using calcium polysulfite are being discussed and a path forward needs to be developed.

- **116-N-1 Dispute.**
  **Status:** 116-N-1 CVP was finalized incorporating resolved comments as agreed to by RL and WCH in an August 2007 meeting. The 116-N-1 Waste Site Reclassification Form (WSRF), Rev. 0 CVP, and the comment response package for remaining unresolved comments were formally transmitted to RL on 9/28/07 for submittal to Ecology for approval. Ecology received the WSRF, signed by RL, at a meeting with RL on 10/24/07. Ecology agreed that source unit work was complete and backfull appropriate; however, Ecology formally rejected the WSFR for interim closure on 12/20/07. RL submitted a Statement of Dispute to Ecology on 1/18/08. Dispute was discussed at March and April IAMIT. Based on the April IAMIT, specific additional information will be added or clarified in the 116-N-1 CVP and then resubmitted for site reclassification approval. Revision to the CVP is in progress.

- **ERDF Soil-to-Debris Ratio**. On 6/18/07 WCH began using daily operational cover (DOC) to maintain the required 3:1 soil-to-debris compaction ratio.
  **Status:** The ERDF Placement Optimization and Settlement Monitoring Test Plan was approved by RL and EPA. Compaction test pad construction began on 8/13/07 in an effort to reduce the soil-to-debris ratio. Waste Material Management Plan was revised and subsequently approved to utilize 1:1 soil-to-debris ratio, except for large steel which will be at a 2:1 soil-to-debris ratio. Implementation of the 1:1 ratio was achieved on 4/21/08. **This issue is closed.**

# Hanford K Basins Remediation

## *Tri-Party Agreement M-34 Milestone Review*

*U.S. Department of Energy*
*Richland Operations Office (RL)*
*River Corridor Project*

*June 19, 2008*

# TPA Milestone Status

## Remaining Milestones Due Fiscal Year 2008-2009

| Number | Milestone Title | Due Date | Status/Comments |
|---|---|---|---|
| M-34-30 | Initiate Sludge Treatment<br>This interim milestone will be complete following treatment and packaging of the first unit of sludge into a form that is certifiable for disposal offsite. | 12/31/2008 | Anticipated to be missed. A change package per M-34-40 based on M-34-40-T01 and M-34-40-T02 was transmitted with proposed adjustments to this milestone. |
| M-34-32 | Complete Removal of the K East Basin Structure<br>This interim milestone will be complete when spent nuclear fuel, sludge, debris and water are removed from the K East Basin and the upper building and concrete basin are removed. | 09/30/2009 | On Schedule. |
| M-34-31 | Complete Sludge Treatment<br>This interim milestone will be complete following treatment and package of all sludge for disposal offsite. | 11/30/2009 | Anticipated to be missed. A change package per M-34-40 based on M-34-40-T01 and M-34-40-T02 was transmitted with proposed adjustments to this milestone. |
| M-34-40-T01 | Submit a detailed description of overall work scope and interfaces for 100K Area Closure | 01/31/2008 | Complete. |
| M-34-40-T02 | Submit a detailed schedule and budget profile for 100K Area Closure | 03/31/2008 | Complete. |
| M-34-40 | Submit 100K Area Change Package with proposed milestone changes. | 05/31/2008 | Complete. |
| M-34-00A | Complete removal of the K Basins and their contents.<br>Unless otherwise noted, the term "K Basins" is used to denote both K East and K West Basins.<br>Note: This milestone will be complete when both K East and K West Basins, spent nuclear fuel, sludge, debris, and water are removed. | 03/31/2009 | Anticipated to be missed. Requires completion of M-34-31 that will involve removal of sludge from K West Basin for treatment. A change package per M-34-40 based on M-34-40-T01 and M-34-40-T02 was transmitted with proposed adjustments to this milestone. |

# *Significant Accomplishments and Status*

**Overall Project**

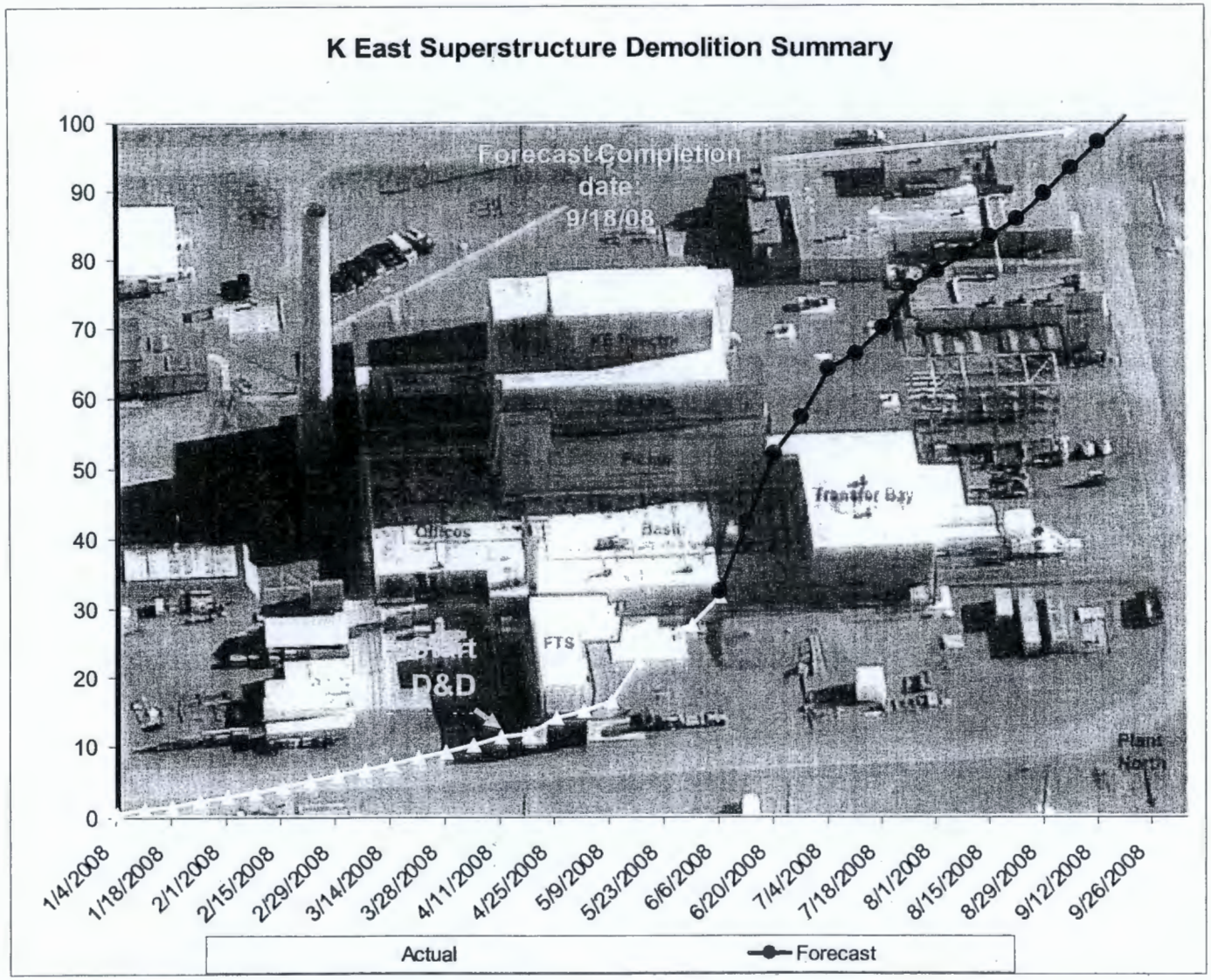
- A detailed schedule and budget profile for 100K Area closure was submitted to EPA.
- A TPA change package with proposed changes to M-34 milestones was submitted to EPA.

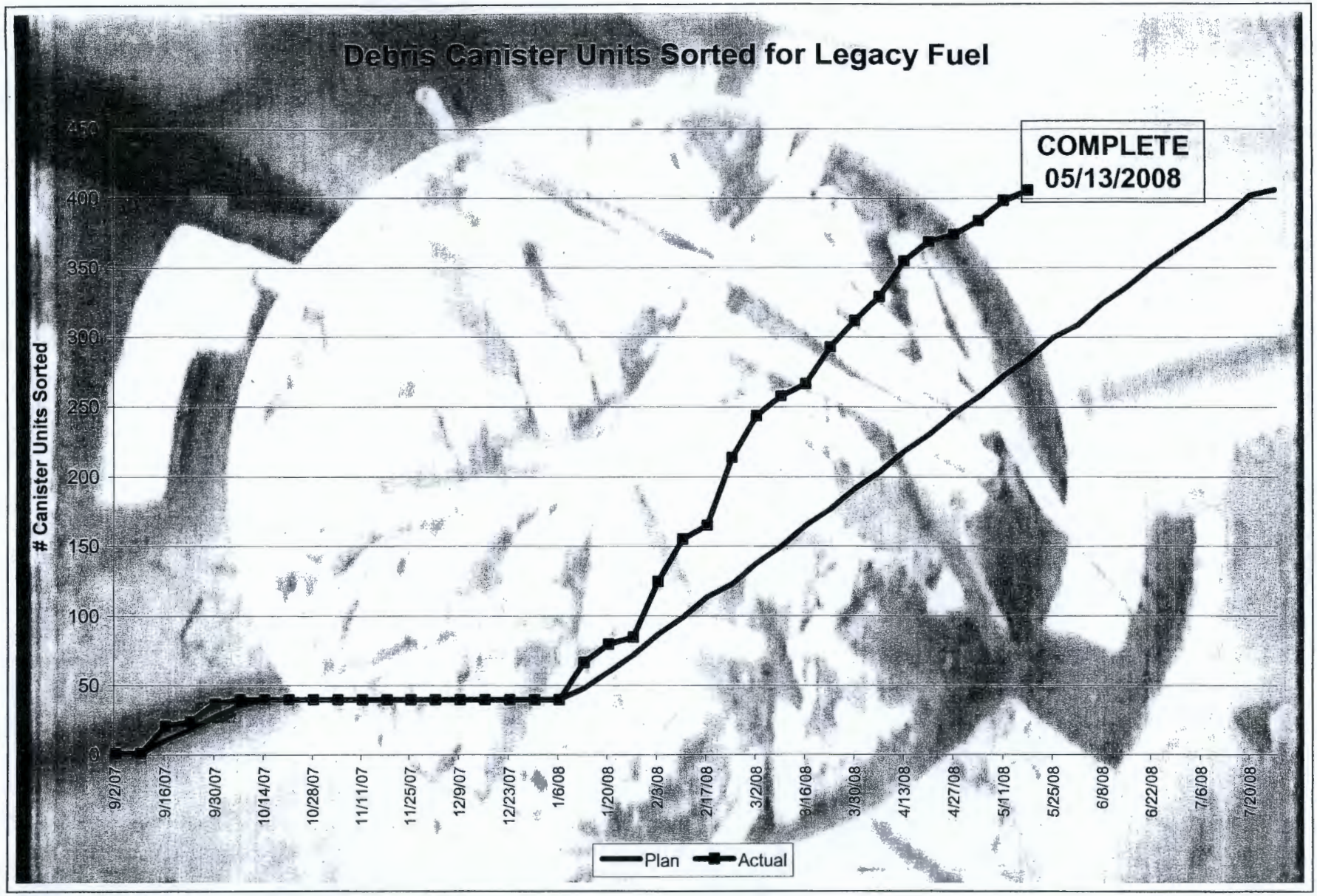
**K East Basin**

- Dewatering of the Basin was completed.
- Utility services to the K East Basin have been disconnected.
- Basin was filled with a controlled density fill to facilitate building demolition.
- Super structure demolition has commenced.

**K West Basin / Cold Vacuum Drying Facility**

- Completed training and maintenance to restore fuel processing equipment to service for upcoming Multi-Canister Overpack (MCO) shipments of spent nuclear fuel found during sludge and debris removal.
- Completed debris canister sorting to prepare for legacy fuel processing.
- Performed readiness self-assessment in preparation for upcoming Operational Readiness Reviews (ORRs).


K East Superstructure Demolition Summary
100
90
80
70
60
50
40
30
20
10
0
Forecast Completion date: 9/18/08
Transfer Bay
Offices
Basin
FTS
Plant D&D
Plant North
1/4/2008
1/18/2008
2/1/2008
2/15/2008
2/29/2008
3/14/2008
3/28/2008
4/11/2008
4/25/2008
5/9/2008
5/23/2008
6/6/2008
6/20/2008
7/4/2008
7/18/2008
8/1/2008
8/15/2008
8/29/2008
9/12/2008
9/26/2008
Actual
Forecast


Debris Canister Units Sorted for Legacy Fuel
# Canister Units Sorted
450
400
350
300
250
200
150
100
50
0
9/2/07
9/16/07
9/30/07
10/14/07
10/28/07
11/11/07
11/25/07
12/9/07
12/23/07
1/6/08
1/20/08
2/3/08
2/17/08
3/2/08
3/16/08
3/30/08
4/13/08
4/27/08
5/11/08
5/25/08
6/8/08
6/22/08
7/6/08
7/20/08
COMPLETE
05/13/2008
Plan
Actual

# *Significant Accomplishments and Status - continued*

## Sludge Treatment

- Engineering:
  - *Conceptual design activities for both above and below water grouting of container sludge continues.*
  - *An analysis of alternative means of dispositioning sludge is in progress which includes treatment at 100K, treatment and/or storage at the 200 Areas, and treatment and/or storage off Hanford Site.*
  - *An evaluation of the feasibility of managing knock-out pot sludge as spent nuclear fuel has started.*
  - *Testing needs have been identified in a test plan as required to support Critical Decision 1.*
  - *Design was completed on the equipment that will be used to sample container sludge.*

# Significant Accomplishments and Status - continued

**Sludge Treatment - continued**

- Testing:
  - *Testing at Maintenance and Storage Facility (MASF) of the system to be used for retrieving settler tube sludge was successful.*
  - *Testing at MASF on the system that will be used to filter the solids from the effluent from the sludge consolidation container that will receive the sludge transferred from the settler tubes was started.*
  - *Testing at an offsite facility continues in evaluating grout mixtures with sludge simulants under water and above water.*
  - *Testing at MASF of the system that will be used to sample container sludge has been successfully completed.*
  - *Testing at PNNL using the WTP M-1 test loop for testing of rheology modifiers, solids instrumentation, and mixing is being planned.*
- Sludge Characterization:
  - *A Data Quality Objective (DQO) for sampling all sludge streams is being prepared with input from WIPP.*
  - *A Sampling Analysis Plan (SAP) and Quality Assurance Project Plan (QAPjP) for sampling container sludge was initiated.*

# *Upcoming Activities (Next Three Months)*

**K East Basin**

- Complete demolition preparations for office and basin.
- Complete demolition preparations for F/G line.
- Complete Fuel Transfer System (FTS) and office demolition.
- Complete Basin demolition.
- Complete F/G line demolition.
- Complete removal of all of K East superstructure.

**K West Basin / Cold Vacuum Drying Facility**

- Complete ORRs for MCO restart operations.
- Remove found fuel from K West Basin.
- Treat found fuel at Cold Vacuum Drying Facility (CVDF) and ship to Canister Storage Building (CSB).

# *Upcoming Activities (Next Three Months)*

**Sludge Treatment**

- Continue with conceptual design activities associated with retrieval, transfer, assay, and treatment by solidification of containerized sludge, and package handling systems.
- Complete the alternative analysis and selection process.
- Respond to WIPP comments and approve the "DQO Document for Sludge Characterization" that addresses sludge characterization for Containers, Settler Tanks, and Knock Out Pots.
- Design and testing for Settler Tank and KOP sludge sampling system.
- Continue CD-1 testing for critical technology elements:
  - Investigate sludge rheology modifiers
  - Develop basic grout/sludge formulations
  - Assess solids measurement process control instrumentation
  - Evaluate sludge mixing hardware
  - Top retrieval testing from K West sludge containers

# KBC Project Risk Status

Risks are those factors associated with the Project, both existing and emerging, that can result in cost and schedule impacts. The process by which risks are identified and managed is described in the "KBC Project Risk Management Plan," KBC-28211.

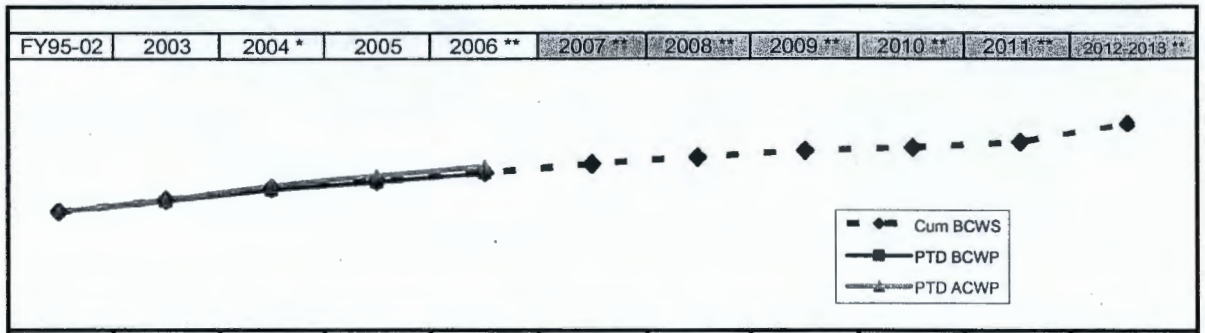
| Sub-project | Major Remaining Risks with "Possible" or "Likely" Likelihood of Occurrence and Risk Mitigation | Emerging Risks and Risk Mitigation |
|---|---|---|
| **K East Basin** | 1. None at this time | |
| **K West Basin** | 1. Future fuel and sludge handling will have potential to deposit additional sludge on K West Basin floor. Risk Mitigation: Design sludge handlings systems with provisions to minimize depositing additional sludge on basin floor.<br>2. Need to process "found spent nuclear fuel" with a water treatment system with limited remaining life. Risk Mitigation: Limit operation of integrated water treatment system to just those times required for processing remaining spent nuclear fuel.<br>3. Receipt of more spent nuclear fuel from other cleanup activities at Hanford. Risk Mitigation: Coordinate with RL and River Corridor Contractor. | |

# KBC Project Risk Status - continued

Risks are those factors associated with the Project, both existing and emerging, that can result in cost and schedule impacts. The process by which risks are identified and managed is described in the "KBC Project Risk Management Plan," KBC-28211.

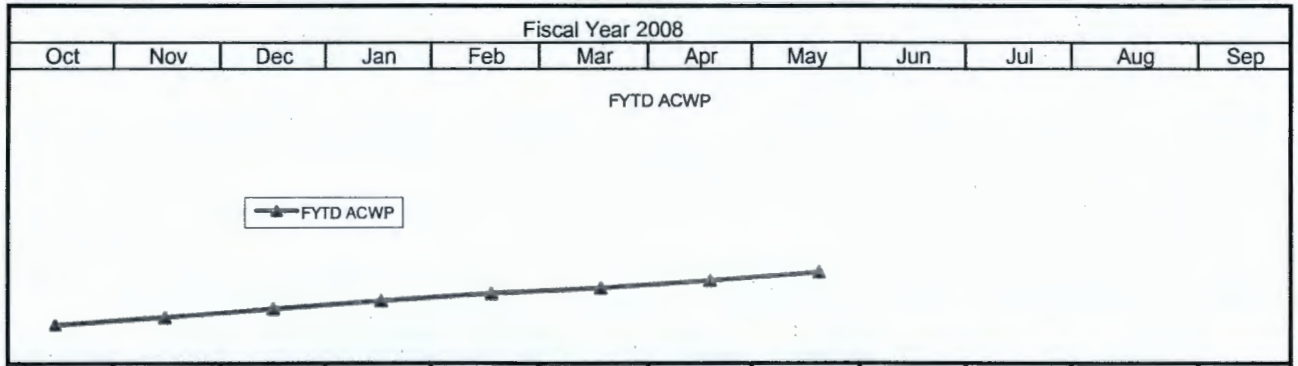
| Sub-project | Major Remaining Risks with "Possible" or "Likely" Likelihood of Occurrence and Risk Mitigation | Emerging Risks and Risk Mitigation |
|---|---|---|
| **Cold Vacuum Drying Facility (CVDF) Fuel Processing** | 1. Equipment failure extends processing duration or preparation efforts. Risk Mitigation: Maintain preventative maintenance program. | |
| **Sludge Treatment** | 1. Results form the Testing program yield different outcome than expected forcing redesign and/or different technology selection. Risk Mitigation: Conduct testing necessary to support Critical Decision-1 in a timely manner.<br>2. PAS-1 cask not available for transporting sludge samples when the project requires. Risk Mitigation: Continue interface with Washington Closure Hanford (the contractor responsible for the cask) or lease a dedicated cask for STP needs.<br>3. Feedback from CCP/CBFO and it's stakeholders. Risk Mitigation: Obtain feedback in a timely manner to minimize impact to project schedule. | |

# PBS RL-0012 – Total Project Baseline




| | FY95-02 | 2003 | 2004 * | 2005 | 2006 ** | 2007 ** | 2008 ** | 2009 ** | 2010 ** | 2011 ** | 2012-2018 ** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cum BCWS | 1,268,535 | 1,431,581 | 1,591,179 | 1,687,648 | 1,808,200 | 1,925,764 | 2,022,437 | 2,108,034 | 2,155,095 | 2,228,624 | 2,493,231 |
| PTD BCWS | 1,268,535 | 1,431,581 | 1,591,179 | 1,687,648 | 1,808,200 | 1,925,764 | 1,987,317 | | | | |
| PTD BCWP | 1,268,535 | 1,419,776 | 1,579,222 | 1,680,783 | 1,797,077 | 1,913,193 | 1,973,377 | | | | |
| PTD ACWP | 1,268,535 | 1,431,581 | 1,623,357 | 1,766,198 | 1,885,753 | 1,999,585 | 2,061,991 | | | | |
| % Sch | 50.9% | 57.4% | 63.8% | 67.7% | 72.5% | 77.2% | 81.1% | 84.6% | 86.4% | 89.4% | 100.0% |
| % Cmpl | 50.9% | 56.9% | 63.3% | 67.4% | 72.1% | 76.7% | 79.1% | | | | |
| SPI | 1.00 | 0.99 | 0.99 | 1.00 | 0.99 | 0.99 | 0.99 | | | | |
| CPI | 1.00 | 0.99 | 0.97 | 0.95 | 0.95 | 0.96 | 0.96 | | | | |

| Life Cycle | |
|---|---|
| *BAC= | 2,493,231 |
| EAC= | 2,567,052 |
| BCWS= | 1,987,317 |
| BCWP= | 1,973,377 |
| ACWP= | 2,061,991 |
| SV= | (13,940) |
| CV= | (88,614) |

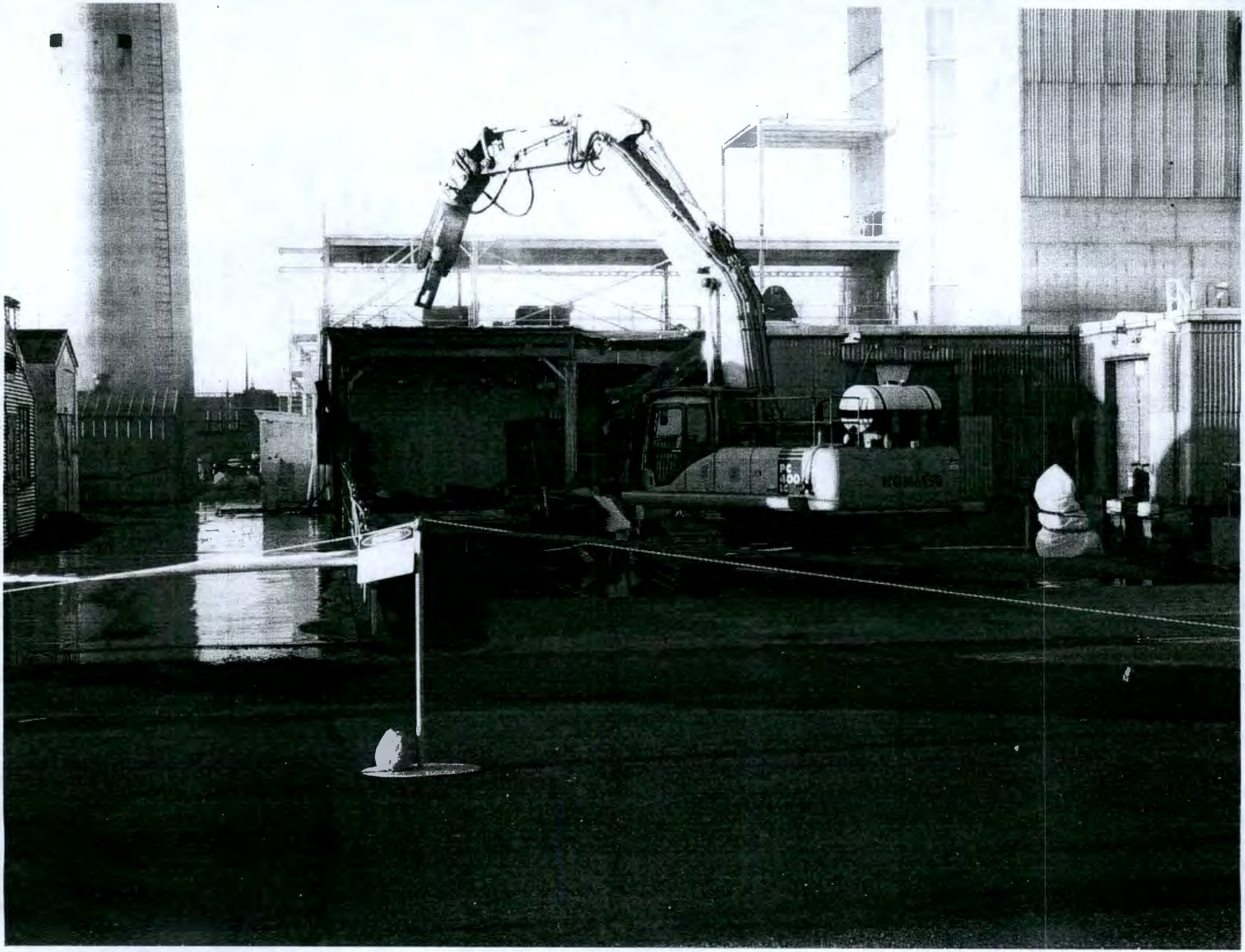



| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FYTD ACWP | 5,013 | 13,062 | 22,520 | 31,276 | 38,970 | 45,018 | 53,082 | 62,405 | | | | |

* PHMC Rebaseline Sludge Retrieval & Disposition Project and Decontamination & Decommission Project
** FH KBC EIR Validated Baseline

# *PBS RL-012*
# *Project Performance through May FY 2008*
**($ in thousands)**

| | FYTD ACWP |
|---|---|
| Safe and Compliant (Peres) | $ 12,497 |
| Sludge Retrieval and Disposition (Peres) | $ 14,261 |
| Sludge Treatment (Ruscitto) | $ 9,890 |
| K East D&D (Wilkinson) | $ 21,268 |
| Contract Transition Prep (Office of President) | $ 147 |
| Closure Services | $ 4,342 |
| **TOTAL** | $62,405 |


PC
400
LC
KOMATSU