

**River Corridor/Remediation of 100-K Area
Tri-Party Agreement Milestone Review
Meeting Minutes
June 17, 2010**

Approval: June A. Hedges by John B. Price 7/15/2010 Date: _____

J. Hedges
Ecology I/AMIT Representative

Approval: [Signature] Date: 7/21/10

M.S. McCormick
DOE I/AMIT Representative

Approval: [Signature] Date: 7-15-2010

R.A. Lobos
EPA I/AMIT Representative

Minutes Prepared by: [Signature] Date: 7/22/10

T.W. Noland
Mission Support Alliance, LLC

| | | | |
|---------------------|---------|-----------------------|---------|
| Balone, S.N.* | RL | Lobos, R.A.* | EPA |
| Bignell, D.T. | WCH | McCormick, M.S. | RL |
| Black, D.G. | CHPRC | Menard, N.M.* | Ecology |
| Blackburn J.E. | WCH | Morrison, R.D.* | MSA |
| Bond, R.* | Ecology | Neath, J.P.* | RL |
| Bohnee, G. | NPT | Niles, K. | OOE |
| Buelow, L.C. | EPA | Noland, T.W.* | MSA |
| Bryson, D.C. | RL | Piippo, R.E. | MSA |
| Call, P.K. | RL | Potter, R.D. | MSA |
| Cameron, C.E. | EPA | Price, J.B. | Ecology |
| Cimon, S.* | ODE | Riffe, D.J. | CHPRC |
| Dagan, E.B. | RL | Romine, L.D.* | RL |
| Donnelly, J.W.* | WCH | Russell, R.W. | ORP |
| Einan, D.R. | EPA | Sands, J.P. | RL |
| Faulk, D.A. | EPA | Skinnarland, E.R. | Ecology |
| Foley, B.L.* | DOE | Smith, D.C.* | RL |
| Franco, J.R. | RL | Teynor, T.K. | RL |
| French, M.S. | RL | Vanni, J.* | Yakama |
| Gadbois, L.E. | EPA | Watson, D.J.* | CHPRC |
| Glossbrenner, E.T.* | RL | Whalen, C.* | Ecology |
| Guercia, R.F. | RL | Williams, J.D. | CHPRC |
| Harris, S. | CTUIR | Williamson, R.U.* | WCH |
| Hedges, J.* | Ecology | Wintczak, T.M. | WCH |
| Henry, D. | OOE | Wise, B.K. | MSA |
| Jim, R. | Yakama | Yasek, D.M.* | WCH |
| Johnson, W.F.* | WCH | Administrative Record | |
| Knox, K.E.* | KCR | *Attendees | |

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**River Corridor/Remediation of 100-K Area
Tri-Party Agreement Milestone Review
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June 17, 2010**

River Corridor Closure Project - Milestones M-16/M-89/M-93/M-94

DOE-RL distributed a handout on the quarterly summary for the period March 2010 through May 2010, which included the milestone status, significant accomplishments, significant actions planned for the next three months, performance summary, and issues. All of the milestones are on schedule, with the exception of M-16-47, which is currently at risk.

Quarterly Summary

TPA Change Request M-16-09-06 for removal of pipeline segments 100-D-31: 10, 11 and 12 is in RL concurrence. The pipelines will be removed after the building is demolished. The building is sitting over pipelines 10, 11 and 12. A bat study will be performed before the building is demolished.

Milestone Status

Regarding M-16-64, WCH stated that backfill of the final remaining waste site was completed last week, and RL has signed off on the Cleanup Verification Package (CVP) and Remaining Site Verification Package (RSVP) for transmittal to Ecology. EPA initiated a discussion regarding the four at-risk milestones M-16-47, M-16-55, M-16-145 and M-16-00A. WCH acknowledged that any milestone designated as at risk should be included in the milestone status and the basis for risk. WCH stated that M-16-55 (100-N) is listed as at risk for several reasons. Preparations for remediation in the 100-N Area are under way, with the sequencing and scheduling of D4 work being one challenge. Another challenge is clarifying the three or four remedies identified the Record of Decision (ROD) and what defines completion for bioremediation (one of the remedies). Also, a recent discovery of waste sites that are not accessible because they are underneath the reactor building presents a challenge. WCH stated that the intent is to meet with EPA and Ecology to discuss clarification of the at-risk milestones regarding some of the scope of work.

M-16-145 encompasses waste sites in the reactor area outside the fence lines, and some new waste sites have been discovered. Confirmatory sampling has not been completed, and it is unknown whether the milestone completion date will be impacted.

A new contractor, FE&C, is scheduled to start field remediation work in the next 30 days at 100-N. A request for proposal (RFP) is out for a new contractor in the 100-D area, and the contract is on schedule to be implemented by the end of this summer. RL noted that efforts are under way to integrate start of FR work at 100-N without interfering with D4 and ISS work.

Significant Accomplishments - For Last 3 Months

M-89 - 324 Bldg Non-Permitted MW Units Closure - Yakama Nation (YN) inquired about documentation regarding the decision that the 324 Building would not need a RCRA permit. WCH noted that Ecology ordered closure of 324 under a formal settlement agreement around 1994. RL submitted a closure plan in accordance with the legal order and has been working to the closure plan since that time. The M-89 milestone was created during that time to govern some aspects of the closure. It was also noted that the closure plan went through a public comment period, and the focus sheet should provide additional clarification.

Performance Summary

The performance summary, including Recovery Act funding, was provided.

RCC Issues

Next Steps and Path Forward Regarding Continued Use of RESRAD for Chemicals

RL stated that the next steps in the path forward regarding the use of RESRAD are being worked with EPA and Ecology and is in support of the interim action closures that are currently under way. A meeting with EPA and Ecology to address the modeling in general for the final Record of Decision (ROD) is also planned.

Obtaining Approval of 100-D Waste Site Closeout Documents

RL stated that this issue is associated with the three waste sites discussed during the May 20, 2010 Inter-Agency Management Integration Team (IAMIT) meeting. RL is planning to send the final revised CVP/RSVPs for the three waste sites to Ecology next week, and requested an expedited response from Ecology.

YN expressed concern regarding the source of backfill for the waste sites at 100-D and the cleanup levels that are being used. Ecology asked YN whether its concern encompassed backfilling all waste sites or at D Area or certain sites that have had issues. YN responded that its concern is associated with certain sites that have been identified as exceeding cleanup levels.

Breached 324 B-Cell Sump Liner May Impact 324 Plan and Schedule

RL stated that a subcontractor to WCH will be doing characterization investigations underneath the liner to determine whether it will be acceptable to move the 324 B-Cell off the liner.

Hanford 100-K Remediation for Applicable M-16 and M-93 Milestones

A summary of the TPA milestone status, 100K project risk status, and PBS RL-12 and PBS RL-

41 project performance was provided. EPA initiated a discussion regarding Milestone M-16-155, which has been changed to M-15-116. M-15-116 is the treatability test plan for vadose zone soils at the K West head house area. The treatability test plan is on schedule to meet the milestone date and be delivered to the regulators by August 31, 2010. The plan has been drafted and is in internal review.

M-16-140, Submit Revised RD/RA Work Plans for 100K Area RODs as Primary Document(s) per HFFACO 11.6 with New Proposed Milestones Including the Following: (see handout)

RL provided a color-coded chart delineating the scope included in the Remedial Design/Remedial Action (RD/RA). M-16-140 is due March 31, 2011; however, the individual RD/RAs will be released in series between now and March 31. During that time, there will be discussions to set dates for the milestones that are specified in the RD/RA work plans.

M-16-53 and M-16-143 Facilities Status

The first closure documentation for Phase 1 activities in 1706 (M-16-53) is planned for completion by the end of calendar year 2010. RL will send Ecology an e-mail with an approximate time frame that the documentation will be submitted for review.

RL noted that the 183.1 West head house has been taken down. Six feet of soil surrounding the facility has been removed, which was contaminated with sodium dichromate (chrome VI), and results from sampling indicated that more soil removal is needed to 15 feet. The soil remediation will be coordinated with the removal of the south wall of the sedimentation basin (20 feet high) and the treatability test that is being performed there. The concrete from the sedimentation basin is clean and will be used for backfilling in U Canyon.

100K Project Risk Status

RL noted that the risk status for the subprojects K West Basin, Facility D4, and sludge treatment have not changed since the last quarterly report. An emerging risk is the additional contamination at waste sites resulting in additional volume having to be removed.

Tri-Party Agreement Major Milestone Management Review
June 17, 2010

| Name | Organization | Mail Stop | Phone |
|---------------------------|-----------------|-----------|---------------------------|
| Terry Noland | MSA | | 36-6574 |
| Kathy Knox | Knox Reporting | | 946-5535 |
| Jean Danni | Jean Danni | | 945-1100 |
| Jack Donnelly | WCH | | 372-2043 |
| Regena Williamson | WCH | | 372-9127 |
| Rod Cobos | EPA | | 376-3749 |
| Cheryl Whalen | Ecology | | 372-7972 |
| Shirley Gilman | ODOE | | (541) 963-0853 |
| Nina Menard | ECY | | 372-7941 |
| Chris Smith | DOE-RL | | 372-1544 |
| Joe Akrate | DOE | | 872-0649 |
| JANE HEDGES | ECY | | 372-7905 |
| Ron Marrison | MSA/TPA1 | | 376-2994 |
| Donna Usek | WCH | | 312-9229 |
| Wayne Johnson | WCH | | 372-9664 |
| Steve Balone | DOE-RL | | 376-0286 |
| Ellwood Glassbrenner | DOE-RL | | 3765828 |
| Rick Bond | Ecology | | 372-7885 |
| David Watson | CH 2nd Hill | | 373-3250 |
| Byron Fagan | DOE-RL | | 376-7097 |
| Larry Romae | DOE-RL | | 376-4747 |
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June 17, 2010

River Corridor/Remediation of 100-K Area Milestone Review

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

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

10:30 am M-16-00C Remediation of 100-K Area
M-16-53
M-16-140
M-16-143
M-93-22

11:00 am Adjourn Milestone Review

RIVER CORRIDOR CLOSURE PROJECT

TPA Quarterly Review

For Period: March - May 2010

River Corridor Milestones:

M-16

M-93

M-89

M-94

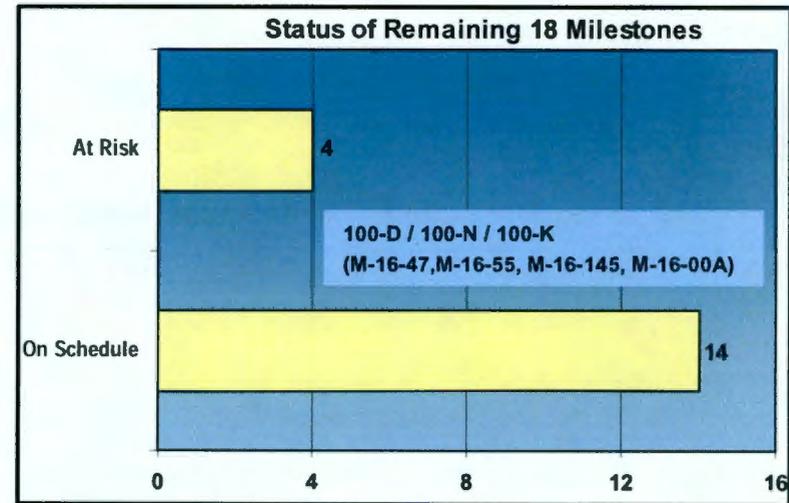
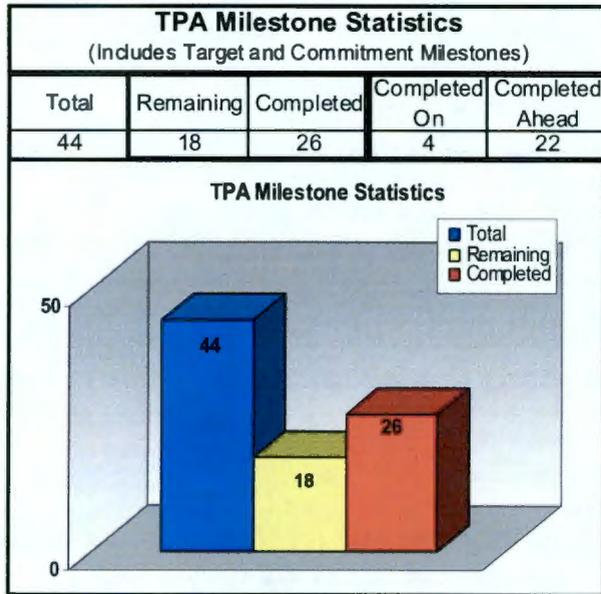


Tri-Party Agreement

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

June 17, 2010

Protecting the Columbia River



Quarterly Summary (March – May 2010)

- Completed one TPA milestone:
 - M-16-94 - Complete Interim Remedial Actions at 100-B-11, 100-B-14, 100-B-16, 118-B-9, 100-C-9, 600-232, 100-B-18, 100-B-19, 100-B-20, 100-B-21, 100-B-22, 100-B-23, 100-B-24, 100-B-25, 100-B-26, 100-B-27, 100-B-28, 118-C-3:3, 126-B-2, 600-230, 100-B-17, 600-233 (due 11/30/10) - 4/16/10
- No TPA change requests were approved during the past quarter. TPA change request M-16-09-06 (100-D Area) is in RL concurrence and will be transmitted to Ecology.

RIVER CORRIDOR CLOSURE PROJECT

For Period: March – May 2010

| TPA MS No. | Compliance Date | Title | Status | Comments |
|---|-----------------|---|-------------|--|
| M-16 Milestones - Remedial Action (milestones through 12/31/2011) | | | | |
| M-16-64 | 09/30/10 | Complete Interim RA, Except Revegetation, for Following 300-FF-2 Waste Sites (300-259, 303-M SA, 303-M UOF, UPR-300-46, UPR-300-17, and 618-1) | On schedule | Completion expected summer 2010. |
| M-16-51-T02 | 12/31/10 | Complete Excavation of 3 of 5 100-H Burial Grounds | On schedule | |
| M-16-51 | 12/31/11 | Complete Interim RA for 100-H Area | On schedule | |
| M-16-47 | 12/31/11 | Complete Interim RA for 100-D Area | At risk | Delays in obtaining regulatory approval of closeout documents and its impact on backfill put milestone at risk. Additionally, TPA CR M-16-09-06 proposes removal of several 100-D-31 segments. |
| M-89 Milestone - 324 Bldg Non-Permitted MW Units Closure | | | | |
| M-89-00 | 09/30/12 | Complete Closure of Non-Permitted Mixed Waste Units in 324 Bldg REC B-Cell, REC D-Cell, and High Level Vault | On schedule | |
| M-93 Milestone - Reactors Final Disposition | | | | |
| M-93-20 | 09/30/12 | Complete 105N Reactor ISS | On schedule | ISS in progress. |
| M-94 Milestone - 300 Area Surplus Facilities Disposition (milestones through 12/31/2011) | | | | |
| M-94-08 | 12/30/11 | Complete Removal and/or RA for 11 of Following Facilities: 305B, 306E, 306W, 307 Retention Basins, 308, 309, 321, 323, 324, 324B, 327, 333, 340, 3706, and 3720 | On schedule | 305B, 306E, 333 completed under M-94-06 (March 2008). 3706, 306W, 3720 completed under M-94-07 (March 2009). |

Significant Accomplishments – For Last 3 Months:

M-16 – Remedial Action / Risk Assessment:

- Started equipment mobilization for concrete removal at 100-C-7.
- Continued overburden removal and loadout of 100-D-31 pipelines.
- Continued 100-D/100-H Area waste site closure verification sampling.
- Completed excavation and loadout of six waste sites in 100-IU-2/6.
- Awarded 100-N remaining sites remediation subcontract.
- Initiated backfill at 618-1 Burial Ground.
- Awarded 300 Area remediation subcontract for north of Apple Street waste sites.
- Completed Phase III groundwater upwelling characterization field activities (in support of remedial investigation of Hanford Site releases to Columbia River).
- Issued 100-F/IU-2/IU-6 – Segment 1 Orphan Sites Evaluation Report, Rev. 0.
- Received approval of 15 waste site closure documents during this reporting period.
- American Recovery and Reinvestment Act (ARRA) - Issued RFP for 100-F Area remediation; received bids.
- ARRA - Completed 618-10 vertical pipe unit (VPU) and trench radiological characterization activities.
- ARRA - Completed 618-10 VPU soil sampling activities.

M-89 – 324 Bldg Non-Permitted MW Units Closure:

- Initiated grout placement in REC B-Cell, High-Level and Low-Level vaults, and SMF south cell.
- Completed high bay demolition.

M-93 – Reactors Final Disposition:

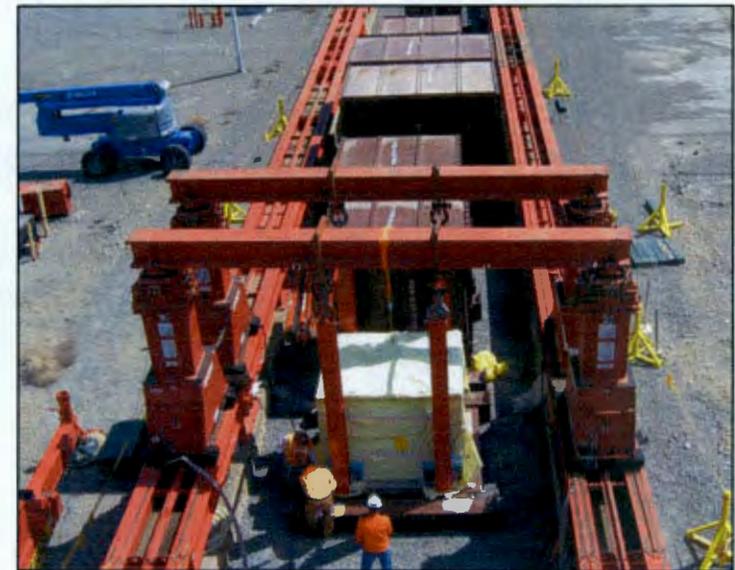
- Continued 109N safe storage enclosure (SSE); continued 105N SSE design.
- Continued 105N above/below-grade demolition and loadout.

M-94 – 300 Area Surplus Facilities Disposition:

- Installed gantry and track for 327 hot cell removal; removed Hot Cells A-I and upper SERF cells from building and built grout boxes.
- Completed above-grade demolition and loadout of 336 High Bay Testing Facility and 338 Maintenance Building.



Plastic Sleeve Containing Soil Sample (618-10)



327 Facility Hot Cell Removal

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

- For period of March through May 2010, disposed more than 464,000 tons of waste in ERDF.
- ARRA – Completed excavation of Super Cell 10, nearly four months ahead of schedule.
- ARRA – Started manufacturing and placing bentonite admix in Super Cell 9.
- ARRA – Started construction of Super Cells 9/10 crest pad buildings.
- ARRA – Issued notice-to-proceed for design of equipment, truck, and container maintenance shops, and ERDF operations center.
- ARRA – Received final design for fueling station.



Admix Production

Significant Actions Planned – For Next 3 Months:**M-16 – Remedial Action / Risk Assessment:**

- Initiate 100-N remaining sites remediation activities.
- Begin 100-N bioremediation pilot system operation.
- ARRA - Award 100-F remediation subcontract.
- ARRA – Award confirmatory sampling subcontract
- ARRA – Commence 618-10 intrusive characterization.
- Deliver Draft B of the RCBRA report ecological and human health volumes to RL/regulators for review.

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

- Complete 324 SMF Cell, REC C-Cell, and REC Cell ductwork fixative application; complete B-Cell and A-Cell grouting.
- Continue deactivation/decommissioning of 324 support areas.

M-93 – Reactors Final Disposition:

- Begin 105N Fuel Storage Basin above-grade demolition.
- Complete 109N SSE structural steel erection.

M-94 – 300 Area Surplus Facilities Disposition:

- Begin 327 above-grade demolition.
- Continue shipping gloveboxes from 308 laboratory to Perma-Fix.
- Accept transfer of 307 Basins, 310 TEDF, 340, and 3790 facilities for disposition.

ERDF:

- ARRA – Complete Super Cell 9 admix placement.
- ARRA – Start placement of bentonite admix for Super Cell 10.
- ARRA – Receive bids for batch plant.
- ARRA – Complete designs for container, equipment, and truck maintenance shops, and ERDF operations center.

PERFORMANCE SUMMARY (includes ARRA)
Contract Inception (8/25/05) through May 2010
 (\$K)

| | IPB | | CUMULATIVE | | | Previous Quarter Comparison | | | |
|--------------------------|------------------|------------------|------------------|------------------|----------------|-----------------------------|---------------|----------------|----------------|
| | BCWS | EAC | BCWS | BCWP | ACWP | SCHEDULE VAR (\$) | | COST VAR (\$) | |
| | | | | | | Feb | May | Feb | May |
| D4 | 659,806 | 541,682 | 290,335 | 354,908 | 231,910 | 53,194 | 64,573 | 113,622 | 122,998 |
| Reactor ISS | 120,767 | 113,751 | 70,720 | 51,087 | 48,039 | -17,103 | -19,633 | 3,609 | 3,048 |
| Field Remediation | 611,634 | 646,797 | 305,827 | 302,607 | 264,609 | 9,055 | -3,220 | 41,131 | 37,998 |
| Waste Operations | 414,039 | 393,000 | 173,515 | 226,379 | 204,874 | 34,061 | 52,864 | 3,577 | 21,505 |
| ESFC | 52,391 | 54,814 | 37,043 | 38,167 | 34,532 | 1,655 | 1,124 | 4,003 | 3,635 |
| Mission/General Support | 324,995 | 444,615 | 189,077 | 189,077 | 190,849 | 0 | 0 | -3,199 | -1,772 |
| Transition | 3,979 | 3,747 | 3,979 | 3,979 | 3,747 | 0 | 0 | 232 | 232 |
| Contingency | 155,991 | 155,991 | | | | | | | |
| TARGET COST TOTAL | 2,343,601 | 2,354,397 | 1,070,496 | 1,166,204 | 978,560 | 80,863 | 95,708 | 162,976 | 187,644 |

Schedule Variance (PMB): \$95,708K

- Acceleration of 300 Area and 100-N Area building demolitions.
- Stop-work at KE/KW Reactor ISS (RL direction).
- Accelerated remediation work at 100-D/H burial grounds and accelerated completion of 100-B-14 and 100-C-9; offset by negative variances associated with CLIN 3 and 100-K/300 Area descope, as well as delays at 100-N, 300 Area, and 100-IU-2/6 waste sites.
- Transportation, treatment, and disposal support to accelerated work in FR and D4 Projects.

Cost Variance (PMB): \$187,644K

- Significant underruns experienced in 300 Area building characterization, deactivation, and demolition activities.
- 100-D/F/H and 300 Area burial grounds remediation underruns. Partially offset by significant project support costs at all active dig sites.
- Costs have been less than planned due to Waste Operations efficiencies achieved in waste treatment, transportation, and construction. These efficiencies and increased waste volumes have more than offset cost overruns in direct project support.

ARRA - Performance Summary
April 2009 through May 2010
 (\$K)

| | IPB | | CUMULATIVE | | | Previous Quarter Comparison | | | |
|---------------------------|----------------|----------------|---------------|---------------|---------------|-----------------------------|---------------|---------------|--------------|
| | BCWS | EAC | BCWS | BCWP | ACWP | SCHEDULE VAR (\$) | | COST VAR (\$) | |
| | | | | | | Feb | May | Feb | May |
| RL0041.R1.2 & .3 - ERDF | 115,000 | 100,914 | 34,864 | 47,958 | 39,457 | 7,646 | 13,094 | 2,620 | 8,501 |
| RL0041.R1.2 - M/G Support | 2,095 | 2,095 | 2,095 | 2,095 | 1,705 | 0 | 0 | 85 | 390 |
| RL0041.R1.3 - Acc Rem | 18993 | 16505 | 2225 | 2678 | 1043 | 447 | 453 | 351 | 1,635 |
| RL0041.R2 - 618-10 | 64,978 | 64,958 | 13,848 | 14,191 | 16,988 | 2,273 | 343 | -1,656 | -2,797 |
| Contingency | 12,795 | 12,795 | | | | | | | |
| TARGET COST TOTAL | 213,862 | 197,266 | 53,032 | 66,922 | 59,193 | 10,365 | 13,890 | 1,400 | 7,729 |

Schedule Variance (PMB): \$13,890K

- ERDF equipment purchases and various projects are running ahead of schedule.
- Schedule efficiencies were gained at 100-IU confirmatory sampling sites when several WSRFs were prepared with no sampling or closure documentation necessary.
- Cone penetrometer installation and characterization, as well as soil sampling, are complete. Also, infrastructure design ahead of schedule, and infrastructure construction started ahead of schedule.

Cost Variance (PMB): \$7,729K

- ERDF cell construction and disposal upgrades are realizing efficiencies.
- Fewer comments received and streamlining the confirmatory sampling process (e.g., going to WSRFs) have resulted in positive cost variances in several accounts. Also, artificial positive cost variance in the non-site specific support (NSSS) as the budget is level-loaded across the whole activity, but the subcontractor is not scheduled to start for several months.
- 618-10 water line design has expended additional costs evaluating alternatives, and costs for intrusive characterization mobilization were much greater than planned. The extended duration of non-intrusive characterization has resulted in more hotel costs than planned.

RCC Issues

- Next steps and path forward regarding continued use of RESRAD for chemicals.
- Obtaining approval of 100-D waste site closeout documents.
- Breached 324 B-Cell sump liner. May impact 324 plan and schedule.

Hanford 100-K Remediation
Tri-Party Agreement Milestone Review
for Applicable
M-16 and M-93
Milestones

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

June 17, 2010



EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

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TPA Milestone Status

Remaining Milestones Due Fiscal Year 2009-2010

| Number | Milestone Title | Due Date | Status / Comments |
|---------------|---|-----------------|---|
| M-16-00C | COMPLETE ALL INTERIM RESPONSE ACTIONS FOR THE 100K AREA. | TBD | See M-16-140 |
| M-16-53 | COMPLETE THE INTERIM RESPONSE ACTIONS FOR THE 100K AREA WITHIN THE PERIMETER BOUNDARY AND TO THE RIVER FOR PHASE 1 ACTIONS. | 12/31/2012 | On Schedule |
| M-16-140 | SUBMIT REVISED RD/RA WORK PLANS FOR 100K AREA RODS AS PRIMARY DOCUMENT(S) PER HFFACO 11.6 WITH NEW PROPOSED MILESTONES INCLUDING THE FOLLOWING: <ul style="list-style-type: none"> • COMPLETE REMOVAL OF THE K WEST BASIN. • COMPLETE REMOVAL OF ALL SLUDGE (INCLUDES CONTAINER, SETTLER TANK SLUDGE) FROM K WEST BASIN EXCEPT KNOCKOUT POT CONTENTS. • COMPLETE REMOVAL OF KNOCKOUT POT CONTENTS. • COMPLETE TREATMENT AND PACKAGING OF FIRST CONTAINER OF TRU SLUDGE WASTE CERTIFIABLE FOR DISPOSAL AT WIPP. • COMPLETE TREATMENT AND PACKAGING OF SLUDGE FOR DISPOSAL AT WIPP. • BEGIN 105KW REACTOR INTERIM SAFE STORAGE. • COMPLETE 105KW REACTOR INTERIM SAFE STORAGE. • INITIATE SOIL REMEDIATION UNDER K WEST BASIN. • COMPLETE ALL INTERIM RESPONSE ACTIONS AT THE 100K AREA. | 03/31/2011 | On Schedule On Schedule On Schedule On Schedule On Schedule On Schedule On Schedule On Schedule On Schedule |
| M-16-143 | COMPLETE THE INTERIM RESPONSE ACTIONS FOR THE 100K AREA WITHIN THE PERIMETER BOUNDARY AND TO THE RIVER FOR PHASE 2 ACTIONS. | 12/31/2015 | On Schedule |
| M-93-22 | COMPLETE 105KE REACTOR INTERIM SAFE STORAGE IN ACCORDANCE WITH THE REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN. | 07/31/2014 | On Schedule Current planning is focused on reactor core removal vs. interim safe storage |



EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

M-016-140 Status

- Develop Integrated RD/RAWP Schedule – COMPLETE
- Submit Draft A RD/RA Work Plans for M-016-140 Milestone - Due: March 31, 2011
- Individual RD/RAWPs are discriminated by color below.

| Milestone Item | Existing RD/RA Work Plan | Recommended RD/RA Work Plan (numbers correspond to section on integrated schedule) | Decision Document |
|---|--|--|---|
| Complete Removal of the K West Basin | DOE/RL-96-17 R6 "RDR/RAWP for the 100 Area" | 1a) Develop new RD/RAWP for the K West Basin Deactivation. Use the K East Deactivation RDR/RAWP as a model to start with. 1b) Develop new RD/RAWP for K West Basin Removal and Demolition | Interim Action ROD for 100 Areas Remaining Sites, EPA/ROD/R10-99/039-ESD, Feb. 2004. ROD for K Basin Interim Remedial Action |
| Complete Removal of All Sludge (Includes Container, Settler Tank Sludge) From K West Basin Except Knockout Pot (KOP) Contents | | 2) Develop new RD/RAWP for K West Basin Sludge removal (excludes KOP contents that will be managed as spent nuclear fuel [SNF]) | ROD for K Basin Interim Remedial Action |
| Complete Removal of KOP Contents | The current "RDR/RAWP for K Basins Interim Remedial Action" DOE/RL-99-89 R1, describes the remedial design for SNF removal and since the KOP contents will be removed as SNF, this will be the bases upon which changes will be managed. | 3) As the KOP contents will be removed as SNF, changes in the existing design may be processed as a TPA Change Notice to the existing RDR versus revising the current document. | ROD and ROD Amendment for K Basin Interim Remedial Action |
| Complete Treatment and Packaging of First Container of TRU Sludge Waste Certifiable for Disposal at WIPP | DOE/RL-2006-06 RO "RD/RAWP for K Basins Interim Remedial Action, Sludge Treatment and Interim Storage" is obsolete as it is based on an approach that was not implemented. | 4) Revise DOE/RL-2006-06 RO or develop new RD/RAWP for K Basins Sludge Treatment | ROD and ROD amendment for K Basin Interim Remedial Action |
| Complete Treatment and Packaging of Sludge for Disposal at WIPP | DOE/RL-2006-06 RO "RD/RAWP for K Basins Interim Remedial Action, Sludge Treatment and Interim Storage" is obsolete as it is based on an approach that was not implemented. | 4) Revise DOE/RL-2006-06 RO or develop new RD/RAWP for K Basins Sludge Treatment | ROD and ROD amendment for K Basin Interim Remedial Action |



M-016-140 Status - continued

| Milestone Item | Existing RD/RA Work Plan | Recommended RD/RA Work Plan (numbers correspond to section on integrated schedule) | Decision Document |
|--|--|---|--|
| Begin 105KW Reactor Interim Safe Storage | DOE/RL-2005-26 R0 "RAWP for KE/KW Reactor Facilities and Ancillary Facilities" | 5) DOE/RL-2005-26 R0 may require revision. | EE/CA 2005-86 and 100-K Action Memo |
| Complete 105KW Reactor Interim Safe Storage | DOE/RL-2005-26 R0 "RAWP for KE/KW Reactor Facilities and Ancillary Facilities" | 5) DOE/RL-2005-26 R0 may require revision. | EE/CA 2005-86 and 100K Action Memo |
| Initiate Soil Remediation Under K West Basin | DOE/RL-96-17 R6 "RDR/RAWP for the 100 Area" | 6) DOE/RL-96-17 R6 may not require any further updates. TPA-CN-320 defines completion dates for 100K Area (inside the fence) soil wastes sites. | Interim Action ROD for 100 Areas Remaining Sites, EPA/ROD/R10-99/039-ESD, Feb. 2004 |
| Complete All Interim Response Actions at the 100K Area | | 7) New integrated Response Action Work Plan that includes the integrated schedule for all response actions to complete this milestone. | ROD for 100A Burial Grounds, EPA/ROD/R10-00/121, and ROD for Liquid Waste Sites. Also applicable to RODs/Decision Documents identified above. |



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M-016-053 and M-016-143 Facilities Status

| Phase 1 M-016-053: December 31, 2012 | Phase 2 M-016-143: December 31, 2015 | Phase 3 (to be determined) |
|---|---|------------------------------------|
| 110KE Gas Storage Facility | 115KW Gas Recirculation Building | 105KW Water Tunnel |
| 115KE Gas Recirculation Building | 116KW Reactor Exhaust Stack | 142K CVDF |
| 116KE Reactor Exhaust Stack | 117KW Exhaust Air Filter Building | 1506K1 Fiber Optics Hut |
| 117KE Exhaust Air Filter Building | 118KW Horizontal Control Rod Storage Cave | 165KE Power Control Bldg |
| 118KE Horizontal Control Rod Storage Cave | 119KW Exhaust Air Sampling Building | 142KA CVDF Generator Bldg |
| 119KE Exhaust Air Sampling | 166AKE Oil Storage Facility | 165KW Power Control Bldg |
| 1706KE Radiation Control Counting Lab | 166KE Oil Storage Vault | 167K Cross-tie Tunnel Bldg |
| 1706KEL Developmental Lab | 166KW Oil Storage Vault | 1717K Maintenance Shop |
| 1706KER Water Studies Recirculation Bldg | 1705KE Effluent Water Treatment Pilot Plant | 1724K Maintenance Shop |
| 1713KE Warehouse | 1713KER Shop Building | 1724KA Storage Shed |
| 1714KE Oil and Paint Storage Shed | 1713KW Warehouse | 181KE River Pump House |
| 183.4KW Clearwell | 1714KW Oil and Paint Storage Shed | 183KE Chlorine Vault |
| 183.1KW Head House | 1720K Administration Office Building | 183.2KE Sedimentation Basin |
| 181KW River Pump House | 1724KB Gas Bottle Storage Facility | 183.3KE Filter Basin |
| 183.2KW Sedimentation Basin | 182K Emergency Water Reservoir Pump House | 183.4KE Clearwell |
| 183.3KW Filter Basin | 183.5KW Lime Feeder Building | 183.1KE Headhouse |
| MO048 Construction Lunch Trailer | 183.6KW Lime Feeder Building | 183.5KE Lime Feeder |
| MO060 Conference Trailer | MO101 Administration | 183.6KE Lime Feeder |
| MO872 Leased trailer | MO102 Administration | 185K Potable Water Treatment Plant |
| MO873 Leased trailer | MO214 Administration | 1908K Outfall Structure |
| MO969 HPT Change Trailer | MO382 Office | 1908KE Outfall Structure |
| | MO401 Administration | 190KE Main Pump House |
| | MO402 Administration | 190KW Main Pump House |
| | MO442 Classroom/Office | MO054 Construction Lunch Room |
| | MO506 CVDF Lunch Room | MO500 Administration |
| | MO507 CVDF Conference Room | MO236 KW Ops/HPT Change |
| | MO907 Administration | MO237 KW Construction Forces |
| | MO917 CVDF Administration | MO323 CVD Change Trailer |
| | MO928 Administration | MO955 Conference Room |

Field Work In Progress

Demolition Complete

Closure Actions and Documentation Complete



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M-016-53 and M-016-143 Waste Sites Status

| Phase 1 ⁽¹⁾ M-016-053: 31-Dec-12 | | Phase 2 ⁽¹⁾ M-016-143: 31-Dec-15 | | Phase 3 ⁽¹⁾ (to be determined) | M-016-57 (Initiate soil remediation at K East Basin) |
|---|-----------|---|----------|--|--|
| 100-K-3 | 100-K-71 | 100-K-1 | 120-KE-2 | 100-K-35 | UPR-100-K-1 |
| 100-K-6 | 100-K-77 | 100-K-4 | 120-KE-3 | 100-K-43 | |
| 100-K-18 | 100-K-79 | 100-K-5 | 120-KE-4 | 100-K-47 | |
| 100-K-19 | 116-KE-1 | 100-K-13 | 120-KE-5 | 100-K-55 | |
| 100-K-34 | 116-KE-3 | 100-K-14 | 120-KE-6 | 100-K-56 | |
| 100-K-36 | 116-KE-6A | 100-K-25 | 120-KE-8 | 100-K-72 | |
| 100-K-37 | 116-KE-6B | 100-K-27 | 120-KE-9 | 100-K-73 | |
| 100-K-38 | 116-KE-6C | 100-K-48 | 120-KW-6 | 100-K-74 | |
| 100-K-46 | 116-KE-6D | 100-K-49 | 126-KE-2 | 100-K-75 | |
| 100-K-53 | 118-KE-2 | 100-K-54 | 130-K-2 | 100-K-80 | |
| 100-K-55 | 120-KW-1 | 100-K-55 | 130-KE-2 | 100-K-81 | |
| 100-K-56 | 120-KW-2 | 100-K-56 | 130-KW-1 | 100-K-82 | |
| 100-K-57 | 120-KW-3 | 100-K-60 | 130-KW-2 | 116-K-3 | |
| 100-K-62 | 120-KW-4 | 100-K-61 | 132-KW-1 | 116-KE-2 | |
| 100-K-63 | 120-KW-5 | 100-K-66 | 1607-K1 | 116-KW-2 | |
| 100-K-64 | 120-KW-7 | 100-K-67 | 1607-K2 | 118-KW-1 | |
| 100-K-68 | 130-KE-1 | 100-K-83 | 1607-K4 | 128-K-2 | |
| 100-K-69 | 132-KE-1 | 116-KW-1 | 1607-K5 | | |
| 100-K-70 | 1607-K3 | 118-KW-2 | 1607-K6 | | |
| | | 120-KE-1 | | | |

Field Work In Progress

Field Work Complete

Closure Actions and Documentation Complete



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M-093-022 Status

- The following CERCLA documentation was approved:
 - Radiological Air Monitoring Plan for 105KE Reactor Core Characterization
- The NEPA Supplement Analysis and Amended ROD to support 105KE Reactor dismantlement have been drafted and sent to DOE-HQ for review and approval.
- The EE/CA for 105KE Reactor Dismantlement has been drafted and is in RL internal review.
- Core boring is complete for cores 1, 2, and 3. Core 4 boring is anticipated to complete this week. Access port 4C will be video taped and surveyed to establish radiological conditions and the graphite core will be scraped for sampling.



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100K Project Risk Status

Risks are those factors associated with the Project, both existing and emerging, that can result in cost and schedule impacts.

| Sub-project | Major Remaining Risks with "Possible" or "Likely" Likelihood of Occurrence and Risk Mitigation | Emerging Risks and Risk Mitigation |
|-------------------------------|---|--|
| K West Basin | <p>Future fuel and sludge handling will have potential to deposit additional sludge on K West Basin floor.</p> <p>Mitigation: Design sludge handling system with provisions to minimize depositing additional sludge on basin floor.</p> | |
| Facility D4 | <p>Drawing unavailability / errors or undocumented facility configuration modifications cause work stoppage during facility isolation.</p> <p>Mitigation: Where necessary, hand-over-hand tracing is being performed. Utility isolation project will deactivate electrical and water over wide area, minimizing risk to incomplete isolation.</p> | |
| Sludge Treatment | <p>Results from the testing program yield different outcome than expected forcing redesign and/or different technology selection.</p> <p>Mitigation: Conduct testing necessary to support Critical Decision-2/3 in a timely manner.</p> | |
| Waste Site Remediation | | <p>Risks have been realized associated with radiological conditions at waste site UPR-100-K-1 requiring additional controls and increased volumes of waste to manage resulting in more time and resources than expected.</p> |



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PBS RL-0012 – Project Performance

| WBS & Title | Contract to Date (\$000) | | | | | BAC |
|---|--------------------------|---------------|---------------|--------------|--------------|---------------|
| | BCWS | BCWP | ACWP | SV | CV | |
| 012.01 - Program Management | 10717 | 10717 | 10041 | 0 | 676 | 25862 |
| 012.02 - Basin Operations & Maintenance | 16163 | 16163 | 18221 | 0 | -2058 | 64700 |
| 012.03 - Facility Operations | 7059 | 7059 | 7884 | 0 | -825 | 42287 |
| 012.09 - Sludge & Fuel Disposition Management | 3090 | 3090 | 3302 | 0 | -212 | 5051 |
| 012.11 - 100K Facilities Deactivation | 524 | 524 | 545 | 0 | -21 | 524 |
| 012.13 - KE Basin Demolition | 9220 | 9220 | 10403 | 0 | -1183 | 9220 |
| 012.14 – KW Basin Decontamination & Deactivation | 0 | 0 | 0 | 0 | 0 | 16015 |
| 012.15 0 KW Basin Demolition | 0 | 0 | 0 | 0 | 0 | 24961 |
| 012.16 - Sludge Treatment Project | 54999 | 51927 | 50541 | -3072 | 1386 | 267872 |
| 012.90 - Assessments - PBS RL-12 | 4616 | 4616 | 5195 | 0 | -579 | 13276 |
| 012.98 - Transition | 21768 | 21768 | 21768 | 0 | 0 | 21768 |
| 012.99 - PBS RL-12 G&A and Direct Distributables | 16959 | 16959 | 16670 | 0 | 289 | 85388 |
| TOTAL RL-0012 - SNF Stabilization and Disposal | 145115 | 142043 | 144571 | -3072 | -2528 | 576924 |



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PBS RL-0012 – Project Performance - continued

- Schedule Performance (-\$3.1M / -2.1 %)
 - The STP negative variance is due to: 1) Management decisions to hold procurement of the MCO's and the IWTS/MCO system refurbishments until engineering evaluations were conducted (-\$1.6M); 2) difficult contract negotiations with the Phase 2 technology vendors (-\$0.7M); 3) several subcontracts for the Engineered Container Retrieval, Transport, and Storage (ECRTS) were not awarded as planned (-\$0.5M); and 4) Settler Tank sampling activities not starting due to the impact of the Settler Retrieval pump issues (-\$0.3M).
- Cost Performance (-\$2.5M / -1.8%)
 - The 100K negative variance (-\$3.6M) has two main components: 1) the impact to demolition and waste shipments from the K East Basin excavation has a variance of (-\$1.2M). The effort was completed in FY2009. 2) K West Basin Operations (-\$2.4M) impacts remaining from implementation of operational controls after a potential inadequacy in the safety analysis (PISA) was declared preventing the operation of the Integrated Water Treatment System (IWTS) in the K West Basin in prior months and cost to maintain aging facilities in the 100K Area.
 - The STP positive variance (+\$1.4M) is due to: 1) efficiencies in testing support and materials for the Engineered Container Retrieval and Transportation Systems (ECRTS) and MASF facility costs have been less than planned to support a TRL-3 assessment (+\$0.3M); 2) due to success of the KOP inspection activities, the design and testing requirements are proving to be less than originally planned (+1.1M).
 - The PBS RL12 G&A and Assessments negative variance (-\$0.3M) is related to the overall cost overrun of the PBS, drawing a larger allocation of this costs to the PBS.



PBS RL-0041 – Project Performance

| WBS and Title | Contract to Date (\$000) | | | | | BAC |
|--|--------------------------|--------|-------|-------|-------|--------|
| | BCWS | BCWP | ACWP | SV \$ | CV \$ | |
| 041.02.01.01 - 100K Area Planning & Integration | 624 | 530 | 332 | -95 | 197 | 1992 |
| 041.02.02.01 - 100-K Group 1 Structures Remediation | 20683 | 18306 | 12351 | -2377 | 5955 | 29962 |
| 041.02.02.02 - 100-K Group 1 Remediation | 10799 | 10628 | 12566 | -171 | -1938 | 40963 |
| 041.02.03.01 - 100-K Group 2 Structures Remediation | 1474 | 1688 | 869 | 215 | 819 | 8947 |
| 041.02.03.02 - 100-K Group 2 Remediation | 291 | 229 | 93 | -62 | 137 | 27708 |
| 041.02.04.01 - 100-K Group 3 Structures Remediation | 100 | 602 | 154 | 502 | 448 | 42293 |
| 041.02.04.02 - 100-K Group 3 Remediation | 7 | 0 | 0 | -7 | 0 | 14129 |
| 041.02.06.01 - KW Deactivation | 7682 | 12640 | 5545 | 4958 | 7095 | 20269 |
| 041.02.07.01 - 100K Area Utilities Reroute | 20130 | 10657 | 8991 | -9473 | 1666 | 21758 |
| 041.02.08.01 - 105KE Reactor Disposition - ISS | 7141 | 6368 | 5383 | -773 | 985 | 9512 |
| 041.02.08.02 - 105KW Reactor Disposition | 0 | 0 | 13 | 0 | -13 | 68342 |
| 041.02.08.03 - Site Preparation | 1844 | 1841 | 1206 | -3 | 634 | 12355 |
| 041.02.08.04 - 105KE Obstruction Removal | 2330 | 2514 | 1691 | 184 | 823 | 20553 |
| 041.02.08.05 - Core Removal | 4283 | 3970 | 3135 | -314 | 834 | 25241 |
| 041.02.08.06 - 105KE Demolition | 0 | 0 | 0 | 0 | 0 | 12112 |
| 041.02.08.07 - 105 KE/ KW Reactor Footprint Waste Sites | 0 | 0 | 0 | 0 | 0 | 13227 |
| 041.02.10.01 - RL41 Transition Subc Assignments | 0 | 0 | 28 | 0 | -28 | 0 |
| 041.02.11.01 - 100K Project Management | 6861 | 6749 | 8844 | -112 | -2095 | 67582 |
| 041.02.12.01 - 100K Bioremediation | 0 | 0 | 0 | 0 | 0 | 4622 |
| 041.90.01.01 - PBS RL-0041 Assessments, MSC Services to PRC | 2073 | 2073 | 2679 | 0 | -606 | 27496 |
| 041.90.02.01 - PBS RL-0041 Assessments, PRC Services to PRC | 0 | 0 | 0 | 0 | 0 | 0 |
| 041.98.01.01 - WBS 041 Ramp-up/Transition Fac | 0 | 0 | 0 | 0 | 0 | 0 |
| 041.98.01.02 - WBS 041 Ramp-Up/Transition IRM | 0 | 0 | 0 | 0 | 0 | 0 |
| 041.98.01.03 - WBS 041 ARRA Training | 0 | 0 | 0 | 0 | 0 | 0 |
| 041.98.01.04 - WBS 041 ARRA Relocation & Contract Proposal | 0 | 0 | 0 | 0 | 0 | 0 |
| 041.98.01.05 - WBS 041 Project Services Distribution | 9472 | 9472 | 7156 | 0 | 2316 | 12158 |
| 041.98.02.01 - PBS RL-41 PRC Rewards and Recognition Program | 0 | 0 | 0 | 0 | 0 | 0 |
| 041.99.01.17 - PBS RL-41 PRC General & Administrative | 11969 | 11969 | 7864 | 0 | 4104 | 54107 |
| 041.99.01.18 - PBS RL-41 PRC Direct Distributables | 3611 | 3611 | 3150 | 0 | 461 | 31043 |
| Total -RL-0041 -Nuc Fac D&D -RC Closure Proj | 111375 | 103848 | 82053 | -7528 | 21795 | 566373 |



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PBS RL-0041– Project Performance - continued

- Schedule Performance (-\$7.5M /-6.8%)
 - The negative schedule variance is primarily due to utility re-route delays (-\$9.5M) and facility demolition delays (-\$3.0M) at 183.1KW Head House where work is paused while adjacent waste sites are remediated, 115KE and 117KE where work is paused until after 116KE demolition, and at a few other facilities requiring asbestos abatement due to insulator availability. This variance is offset by the acceleration of K West Deactivation debris removal campaign (+\$5.0M).
- Cost Performance (+\$21.8M/+21.0%)
 - The positive cost performance is from facility demolition (+\$7.2M), K West Deactivation debris removal campaign (+\$7.1M), G&A/direct distributables (+\$6.9M) being less than planned, K East Reactor activities (+\$3.3M) being conducted more efficiently. This variance is being offset by project management (-\$2.1M) where general site cleanup labor has been utilized more than planned and waste site remediation (-\$1.8M) due to cost corrections from ERDF and additional contamination encountered above planned quantities.



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