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River Corridor/Central Plateau
Tri-Party Agreement Milestone Review
Meeting Minutes
July 21, 2011

Approval: _____ Date: 8/18/11
J. Hedges
Ecology IAMIT Representative

Approval: _____ Date: 8.18.11
J.D. Dowell
DOE IAMIT Representative

Approval: _____ Date: 8/18/11
D.A. Faulk
EPA IAMIT Representative

Minutes Prepared by:
_____ Date: 8/11/11
T.W. Noland
Mission Support Alliance, LLC

Blackburn, J.E.*	WCH
Bloom, R.W.*	CHPRC
Bohnee, G.	NPT
Bond, F.W.*	Ecology
Butler, D.H.*	MSA
Brown, M.J.*	Ecology
Call, P.K.	RL
Cameron, C.E.*	EPA
Chang, A.*	Ecology
Charboneau, B.L*	RL
Cimon, S.*	ODE
Collins, M.S.*	RL
Covert, B.C.*	WCH
Cox, W.G.*	CHPRC
Dittmer, L.M.*	CHPRC
Dover, G.L.*	WCH
Dowell, J.D.*	RL
Faulk, D.A.*	EPA
Franco, J.R.	RL
French, M.S.*	RL
Gadbois, L.E.*	EPA
Goswami, D.*	Ecology
Harris, S.	CTUIR
Hedges, J.*	Ecology
Henry, D.	OOE
Holten, R.A.	RL
Jim, R.	Yakama
Johnson, W.F.*	WCH
Kaldor, R.A.*	MSA
Killoy, S.E.*	WRPS
Knox, K.E.*	KCR
Lobos, R.A.*	EPA
Louie, C.S.	RL
Lynch, J.J.*	ORP
Manolopoulus, V*	MSA
Mattlin, E.M.	RL
Menard, N.M.*	Ecology
Niles, K.	OOE
Noland, T.W.*	MSA
Ortiz, S.M.*	RL
Piippo, R.E.*	MSA
Price, J.B.*	Ecology
Russell, R.W.	ORP
Salony,C.H.	RL
Shoemake, J. *	CHPRC
Singleton, D.G.*	Ecology
Skinnarland, E.R.	Ecology
Teimouri, A.E.*	HQ
Teynor, T.K.*	RL
Vance, J.G.*	MSA
Vanni, J.*	Yakama
Watson, D.J.*	CHPRC
Whalen, C.*	Ecology
Yasek, D.M.*	WCH
Administrative Record	

*Attendees

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River Corridor Closure Project - Milestones M-16/M-89/M-92/M-93/M-94

Quarterly Summary April - June 2011 - DOE-RL reported that five change requests related to field remediation in the 100 Areas were approved by Ecology in June. DOE-RL proposed the change requests due to the high number of waste site reclassification forms, sampling instructions and work instructions that needed Ecology approval. Deferral of backfill and revegetation was agreed to in an effort to provide more flexibility for document approval, and to allow for more efficiency in the field work associated with the deeper chrome sites. Ecology stated that the information DOE-RL provided with the change requests was very thorough and well planned out as to which sites would be impacted by further remediation for the high chrome sites.

EPA noted that the original plan was to have all the final Record of Decisions (RODs) in place to complete all interim actions before the M-16-00A due date of 12/31/12, and suggested scheduling meetings to discuss the path forward for sites that potentially would not be completed. EPA added that if some of the actions for the ROD were not completed by the due date, an Explanation of Significant Difference (ESD) may be needed for those sites.

Yakama Nation (YN) asked why the final RODs won't be in place. EPA explained that the first ROD is associated with the 100-K Area, and DOE-RL has significant comments on that. DOE-RL will be working through the comments with the regulators on that first ROD with a goal in mind to not repeat the same issues and to set the standard for the following RODs. DOE-RL responded that the intent is to meet the September 20, 2011 date for submitting the 100-K ROD for review to the regulators. Ecology noted that it will be receiving three major documents for review in September, and DOE-RL acknowledged that it will be a challenge for Ecology to complete those reviews.

EPA requested that DOE-RL take the action to set up a meeting to review the scope of milestone M-16-00A. Ecology requested that DOE-RL provide its plan for transitioning from the interim action RODs to the final RODs. It was agreed to include this topic during the meeting DOE-RL will schedule.

Milestone Status:

M-16-55/M-16-00A - DOE-RL noted that these two at-risk milestones are anticipated to be met, but there are challenges posed in the N-Area with coordinating the field remediation and D4 work within a very small space.
M-89-00 - DOE-RL reported that two samples have been obtained from underneath the 324-B

hot cell. The first sample result was at a low dose of about 30 millirem at 30 centimeters. The alpha counts from the first sample were about 8 nanocuries per gram, which indicates that the soil would not designate as transuranic. The second sample was taken from where the higher concentrations of contamination are, and the results were about 9R.

Significant Accomplishments - For Last 3 Months:

M-16 - Remedial Action/Risk Assessment - DOE-RL reported on the status of remediation in the 618 burial ground trenches. One area of work is remediating hundreds of small bottles that came from the 300 Area labs and were placed in the burial grounds. The bottles are either empty or contain residual amounts of fluid. Some of the contents of the bottles were sampled, which used up all of the liquid. Combined with process knowledge and the current samples taken, DOE-RL has an idea of what the waste stream is. It was determined that sampling all of the bottles was not practical, and that less handling of the bottles was prudent from a worker safety and environmental standpoint.

DOE-RL, with support from EPA, has developed a method to remediate the bottles. The plan is to place a tray with sides in the bottom of the trench and put some soil mixed with fixative in the tray. The bottles will be placed in the tray, broken and mixed into the soil, and then grouted in place before taking the grouted chunk to the Environmental Remediation Disposal Facility (ERDF) for disposal. EPA noted that when the tray contains enough bottles to grout, the batch will be treated for Land Disposal Restrictions (LDR). All of the work in the trench will be done remotely by operators. EPA drafted an ESD to implement the plan, and Ecology has concurred with the plan. EPA noted that the need for an ESD is because the ROD calls out to remove, treat and dispose (RTD) within the operable unit or at ERDF, and the difference in this case is that treatment is being combined with the removal step in-trench.

EPA inquired about the status of the remedial action report for 100-BC-1, noting that it is a critical document due September 30, 2011. DOE-RL stated that it is internal review, and EPA requested submittal of the document for concurrent review. EPA also noted that the 200-UP-1 ROD follows the 100-K Area ROD, and requested notification from DOE-RL by August 1, 2011 if the current scheduled dates can't be met. DOE-RL responded that there were no foreseen barriers to meeting the schedule for submittal of the RODs. Ecology inquired about the status of the Performance Assessment (PA) for ERDF. DOE-RL responded that the modeling work is ongoing and the PA is moving forward.

Significant Actions Planned - For Next Six Months - DOE-RL reported that the 100-C-7 waste site has a fairly narrow plume that will probably end up going down to the groundwater. 100-C-7:1 has fairly widespread contamination which is at 50 feet depth, and digging there is continuing. EPA inquired about the power line problem. DOE-RL responded that contamination was noted at the west side wall, and it is believed the contamination goes underneath the 13.8 KV power line, which supplies power to the Central Plateau. DOE-RL is working with the electrical facilities to determine a solution for addressing the contamination without having to move the power lines, which would be very costly and take about a year to complete. EPA

indicated that since the area would not be designated for residential type activities in the future, and if DOE-RL can show that it is being protective of the groundwater by cutting off the external pathway of contamination, EPA would be amenable to remediation in lieu of moving the power lines.

DOE-RL noted an action that has been completed but was not listed on today's summary. The final two spent fuel shipments from the K Area were completed. The final loadout was completed in one multi-canister overpack (MCO).

Ecology inquired about the status of Volume 1 of the human health risk assessment report (RCBRA). WCH responded that it is in the comment/resolution phase in DOE-RL, and it should be released in early fall of this year. Ecology asked if the RCBRA isn't completed, how the information be incorporated into the remedial investigation feasibility studies (RI/FS). EPA responded that during a Hanford Advisory Board (HAB) meeting yesterday, DOE-RL indicated that the RCBRA will be delivered on September 20, 2011.

Performance Summary - The project performance for baseline and American Recovery and Reinvestment Act (ARRA) continues with a positive schedule and cost variance. There is a 38 million dollar positive cost variance under ARRA, and approval has been received to use the funds to extend work through the end of calendar year 2011. Additional work will done in waste operations at ERDF, which will free up base funds for other work. The contract requirements for remediation of 618-10 burial grounds will be met by the end of September 2011, with about ten million dollars underspent, which will allow for continuing remediation in the burial grounds.

Issues - DOE-RL noted an issue that was not included on the summary today, which is the path forward for the bottles in the 618-10 and 618-11 burial grounds.

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

Milestone Status - DOE-RL noted that the list of milestones expanded from last quarter as a result of successful negotiations with EPA. The Phase 1 milestones, which is moving K Basin sludge to the Central Plateau, are included in the expanded summary. The knockout pots (KOP) and material processing are also included, and DOE-RL has committed to dates for the K West Reactor interim safe storage (ISS) by December 31, 2019 and completing the interim response actions of facility removal and waste site remediation by December 31, 2020.

DOE-RL stated that the budget will be a challenge in FY 2012 at the current levels the contractors have been given. The facilities to be demolished inPhase 1 of M-16-53 will be completed by the end of September 2011, and in 2012 most of the focus will be on the waste sites. For the remainder of 2011, work on facilities that cannot be completed will not be started, and what funds are left will be put towards waste site remediation to meet M-16-53 Phase 1.

DOE-RL reported that the water level of the Columbia River continues to be high, and at one point the protective berms that were installed by the water facility intake structures were under

about eight to ten feet of water. The level has come down below the berm and remediation is under way on the west pumphouse. The berm, which consists of three- to five-inch aggregate rock, held up well. Remediation of the K East pumphouse has been restricted due to nesting cliff swallows, a protected migratory species, which are being monitored on a daily basis. It's estimated that the birds will leave by the end of this month, and then the work will continue there.

M-016-53 and M-016-143:

Accomplishments - DOE-RL noted that the last bullet should read 105KE Reactor instead of 105KE Basin.
Work Planned Next 90 Days - DOE-RL reported that it is on track to complete all of the ARRA key performance parameters (KPPs). Twenty-three facilities will be taken out, and opportunities to take out several more will be pursued. Asbestos abatement will be done on the 183KE chemical storage tanks adjacent to the sedimentation basin.
Facilities Status - DOE-RL noted that M-16-00C, Phase 3 is no longer TBD and has a date of December 31, 2020.
Waste Sites Status - DOE-RL reported that significant progress was made during last quarter and this quarter. There were several failed confirmatory sampling no action required (CSNA) sites in Phase 1 that were remediated. DOE-RL believes that 100-K-63, which is one of the culturally sensitive areas, is ready to clean-close. Meetings have been held with tribal members to discuss options. Artifacts (shell fragments) were found, which was unexpected, when the trench was opened. YN asked about the status of the proposal to do a site-specific KD value for the area. DOE-RL responded that verification sampling is under way, and select values in the area will be reviewed. Ecology asked about the status for 100-K-79, which has a status of mixed failed CSNA and RTD. DOE-RL stated that part of the area is undergoing RTD and part of the area was designated CSNA, which will also undergo RTD.

M-016-170 and M-016-172:

Accomplishments - DOE-RL reported that the KOP pretreatment has been completed and the final results are being analyzed. So far the STP systems have operated as planned, and the goal to raise the density above nine was met (9.8). The end result is to minimize the number of MCOs that have to be used for the KOP material. The original estimate done last year was that 15 MCOs would be needed, and now the estimate has been reduced to four to six MCOs, which would result in a substantial cost and schedule savings. When the size density and large size reduction was completed during pretreatment, the product materials were measured up to 500 R on contact. YN asked if the debris that was sorted out was as hot as the product material. DOE-RL responded that everything is surveyed, and the debris (aluminum wiring, grafoil) was not as hot as the product material. The debris will go into a shielded IP-2 container in a block of concrete and sent to ERDF. Currently all the material is still under water and contained in separate containers to maintain inventory control.
Work Planned Next 90 Days - A level 3 readiness assessment will be performed by the contractor at the K West Basin cold vacuum drying facility and the canister storage building (CSB) in

preparation for processing the last found fuel MCO. The KOP product material collected during the pretreatment process will be loaded into an MCO and taken out of the basin to the CSB for interim long-term storage. That will be the last step to declare the basin fuel free. Fuel-vacuuming and videotaping of the basin floor is ongoing, and roughly two-thirds of that work has been completed, with the goal to be finished by September 30, 2011.

M-016-171 and M-016-173:

Work Planned Next 90 Days - The contractor held an internal design review for sludge treatment, and the recommendation is to use warm water oxidation with two enhancements: 1) milling to crush the sludge to less than 100 microns; 2) using a Fenton reagent, which is a iron-peroxide type material, that would speed up oxidation. The contractor's final report on the recommendation is expected at the end of this week, and that will be the basis for DOE-RL to commit to two new milestones to EPA and the public. The first milestone is due in March 2012 to release a validated report and a testing program at the lab and bench scale, and then to come back with final milestones by 2015 for the Phase 2 work (sludge treatment and packaging).

M-016-174, M-016-175, M-016-176 - DOE-RL noted that these are three new milestones. The K West annex is a modification to the existing spent fuel transfer annex and will be a Category 2 facility. The annex is critical path, and needs to be built, validated and ready to operate to move forward with sludge retrieval and removal.
Accomplishments - The PNNL characterization report on the settler tube sludge provided a basis for validation that the system design parameters are sufficient and protective.

M-93-22 KE Reactor Interim Safe Storage - The contractor has been selected to do interim safe storage (ISS); however, due to funding constraints in FY 2012, completion of ISS is on hold. The design will be completed, and if funding is available in 2012, the contractor will proceed with filling the effluent piping holes or place temporary barriers. When the budget profile becomes clearer in 2012, a decision will be made to plan for ISS in 2013 if it can't be done in 2012.
100K Project Risk Status - DOE-RL stated that there has been no change in project risk status.

Project Performance:

PBS RL-0012 - Overall the project is slightly behind schedule and over budget. There were delays in getting the KOP processing system and the KOP pretreatment system hardware into full production and operation. There were some last-minute recommendations by the operators for tool refabrication, but the schedule is anticipated to be recovered to meet the milestone.

PBS RL-0041 - The project (combined base and ARRA funding) is working overtime to regain schedule. EPA noted that progress is being made at K Basins, but some of the work may fall behind, depending on the FY12 budget. Ecology asked about the impact from the upcoming layoffs. DOE-RL responded that the layoffs are a key part of planning to ensure work can be done safely. The impact to operations at the cold vacuum drying facility and K West Basin will

be minimal. There are other areas where the impacts may be more of a challenge. DOE-RL noted that there is a potential for a second layoff, and it's difficult to assess the risk in some areas.

Lifecycle Report - M-36-01

The first lifecycle report is on schedule to be formally transmitted to EPA and Ecology by the end of next week. The 2012 lifecycle report is being prepared for submittal at the end of January 2012, which will start the regular schedule for a January 31 submittal each year. Due to the overlap of the 2011 and 2012 reports, there will be very little difference between the two reports. EPA inquired about the total that has been spent on Hanford cleanup since inception of the TPA in 1989, indicating that it would be useful information to have. MSA responded that the data is easily accessible from 1997 forward. The amount from 1989 to present was estimated by MSA to be around 30 billion, but it was noted that it is difficult to resurrect numbers from 1989 to 1997 because the data was rolled into the defense budget and then rolled out. MSA stated that the amount from 1989 to present is something that could be researched for the 2013 report.

PFP Closure Project - TPA Milestone M-083

M-083-42 - DOE-RL noted that the transition and dismantlement of the 241-Z waste treatment facility is complete. EPA stated that its expectation is that the Z-361 tank will be closed consistent with the final configuration of 241-Z tanks since they are in the same footprint area. EPA noted that DOE-RL is considering leaving the shells of the 241-Z tanks in place, and if the shell of Z-361 is left in place, the efforts to do so should be coordinated.
Accomplishments - DOE-RL noted that the 2736-Z/ZA/ZB is ready for demolition, but due to budget uncertainties, the demolition may not take place this year. The revised pencil tank size-reduction system in PRF is much more efficient and the schedule is recovering.
Schedule and Cost Performance - Approval has been received to carry ARRA funding through the end of this calendar year. The project is behind on cost and schedule performance. The first set of layoffs will start in August, and the teams will be reduced from 18 to six or seven teams starting in FY12. The workers will be monitored closely to ensure they are staying focused and perform the work safely.
Non-Regulatory Issues - The potential funding shortfall in FY12 will be addressed with EPA and Ecology in a meeting next Thursday (7/28/11).

TPA Milestone M-26-01 - Land Disposal Restrictions Report

Accomplishments - DOE-RL stated that the information Ecology requested on the low level waste determination is being prepared for transmittal.

TPA Quarterly Milestone Review M-91 Series

Significant Accomplishments of the Last Three Months - The Project Management Plan (PMP) was submitted to Ecology on June 27, 2011. Regarding M-091-44, Ecology stated that the

wording "volume shipped" implies that the waste has been shipped to WIPP, and requested a revision in the wording to reflect the waste is sent for repackaging. The revised wording would also apply to M-091-43. It was also suggested to break out what waste is sent out of state and to ERDF. DOE-RL noted that at the request of Ecology, the addition of non-TPA Hanford TRU waste disposition was included on the summary.
Actions Planned for Next Six Months - Ecology inquired about suspension of shipping to WIPP. DOE-RL explained that the suspension is due to a broken cable that is being repaired, and shipping to WIPP has been delayed. Shipments are planned to restart to WIPP on August 8, 2011, with about five to six shipments per week for about four to five weeks.

Soil and Groundwater Remediation Project Milestone Review - M-015-00, M-016-00, M-024-00, M-037-00, M-085-00

Milestone Status - DOE-RL stated that all of the milestones listed in today's summary are on schedule, although many of them may be impacted by the FY12 budget. Discussions will be held with Ecology and EPA next Thursday (7/28/11) regarding any milestone schedule changes due to the budget constraints. EPA stated that a copy of today's handout was not received in time to review and provide comments that would be addressed in the summary by DOE-RL, and pointed out that the handout is not a Tri-Party presentation unless all three parties have input. EPA referred to its comments regarding PW-1/3/6 and the expectation that the ROD will be completed in the next six months, and that the remedial action report, which is not a milestone, is an important document that is needed for 200-CW-3. DOE-RL took an action to ensure the TPA quarterly milestone summary is provided to EPA and Ecology five working days before the TPA quarterly milestone review meeting. DOE-RL responded to EPA's comment regarding the ROD and acknowledged that it will be completed this year and that it should have been included in today's handout. EPA requested a status from DOE-RL on the receipt of the 200-CW-3 remedial action report, and asked for a concurrent review with DOE-RL since the report is due in two months. DOE-RL will provide the status of the 200-CW-3 remedial action report to EPA.

Significant Accomplishments - 3rd Quarter FY2011:

Pump and Treat Operations - DOE-RL reported that the pump and treat operations continue to expand.
Sampling - The majority of sampling activities have recovered from the delay early in the fiscal year due to safety concerns.
Drilling and Decommissioning - There were 280 wells decommissioned under ARRA, meeting the goal, and verification is under way.
Page 9 of Summary - DOE-RL noted one item that should have been included on this page. The high river level has been impacting some of the injection wells. There is floating debris that has interfered with some of the control panels, causing them to deactivate. DOE-RL stated that as soon as the water level is low enough, repairs will be done, which won't be difficult to complete.
100-HX Groundwater Treatment Facility - The HX system is planned for startup by the end of September 2011. DOE-RL is working with the Bonneville Power Administration (BPA) to address placement of transfer lines. The road crossings in some of the areas present a slight

issue, and accommodations may have to be made for BPA's easement to ensure their access to utility poles, etc.

Deep Vadose Zone - The desiccation test results revealed a large amount of moisture evaporation in the soil column. Ecology asked if a report will be written. DOE-RL responded that the date of the milestone is June 2012, although the funding is uncertain for FY12. All of the data from the testing is archived and stored.
MG-1 - Ecology asked if the work under the River Corridor interim action ROD will be completed for 200 North, and EPA responded that it will be. Ecology pointed out to DOE-RL that all of the sites in the outer area will need to be finished to complete the River Corridor work since they are under a River Corridor interim action ROD. DOE-RL took an action to check on the status.
U Plant Canyon - The grouting in U Canyon is about 28 percent complete. The D-10 tank is being moved from cell 30 to cell 3 before it is removed for disposition. Grouting of the cells is about 48 percent complete.
Railcars Disposition - One railcar is remaining, which will be taken out this week, completing disposition of the railcars.
200-CW-5 - The feasibility study (FS) Rev. 0 was approved by DOE-RL and EPA. EPA initiated a discussion regarding whether or not radium is the predominant contaminant in the area. EPA noted that 12 samples were taken in 1976 in one deep location. Two of the samples were high, and the remaining samples were much lower. EPA stated that applying that as the exposure point of contamination, while conservative, is not very realistic and that radium is probably not the driver. DOE-RL stated that it could not be substantiated whether radium is the driver, and that verification should have been done at the time and also addressed during the Data Quality Objective (DQO) process. The Tri-Parties agreed that the key is the cleanup remedy won't change.
Soil and Groundwater - DOE-RL reported that the internal goal to treat 500 million gallons of groundwater in the 100 Area has been met.

Project Baseline Performance:

Contract-to-Date - DOE-RL stated that FY11 has been a very challenging year, with a lower than anticipated budget and having to make significant adjustments mid-year. DOE-RL will be entering FY12 with a Continuing Resolution (CR) and most likely under a new administration at Headquarters. Ecology requested notification of FY12 budget information, even if it's an estimate, as soon as possible so that its resources can be allocated. DOE-RL noted that the ARRA work is balanced out with some negative and positive cost and schedule variances. It is anticipated there will be enough funding to complete the actions under ARRA by the end of December 2011.

Planned Activities Next 6 Months:

DOE-RL noted that after the meeting is held next week with Ecology and EPA, and the layoff notices go out, the status of the milestones with asterisks will be delineated more clearly. DOE-

RL stated that the intent is to be prepared to ramp up in 2014 - 2015 to start the ROD work in Central Plateau when the River Corridor work is winding down so that sequencing is not delayed and milestones don't have to be renegotiated.

Tri-Party Agreement

Thursday, July 21, 2011
Ecology Offices, Conference Room 3A/B
3100 Port of Benton Way
Richland, Washington

Agenda
River Corridor/Central Plateau Milestone Review Meeting
Chairman: JD Dowell

8:30 a.m.	M-16, 89, 93 and 94	River Corridor Closure
9:00 a.m.	M-16 and 93	100 K Remediation
9:30 a.m.	M-36	Life Cycle Report
9:35 a.m.	M-83	PFP Transition
9:45 a.m.	M-26	Land Disposal Restrictions Report
9:50 a.m.	M-91	Acquisition of Facilities to TSD TRU/TRUM and LLMW
10:00 a.m.		Break
10:10 a.m.	M-15, 16, 24, 37 and 85	Soil and Groundwater Remediation
11:00 a.m.	Adjourn Milestone Review	

Tri-Party Agreement River Corridor/Central Plateau Milestone Review
July 21, 2011

Name	Organization
JAMES LYNCH	DOE-ORP
Reed Kaldor	MSA - TPA
Dru Butler	MSA - PFM
Craig Cameron	EPA
Bruce Covert	WCH
Jeb Blackburn	WCH
Gordon Dover	WCH
Vanessa Manolopoulos	MSA
JUDY VANCE	MSA - TPA
Lorna Dittmer	CHPRC
Rod Lobos	EPA
Cheryl Whalen	Ecology
Rick Bond	Ecology
Michael Collins	DOE-RL
Melinda J Brown	Ecy-NWP
Albert C. S. Chang	Ecology - NWP
Deborah Singleton	Ecology
Brian Charboneau	DOE-RL
Joy Shoemaker	CHPRC
Deb Goswami	Ecology

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July 21, 2011

Name	Organization
Terry Noland	MSA
Kathy Knox	Knox Court Reporting
ROB PIMPO	MSA
Mark French	RL
Larry Gadbois	EPA
Wayne Johnson	WCH
Nina Menard	ECY
John Price	ECY
Donna Uasek	WCH
Stanley Cimon	~~DOE~~
Jonathan Dowell	DOE
JEAN VANDI	YN/ERWM
DENNIS Faulk	EPA
Tom Teymer	DOE-RL/KBCP
Alex Teimer	DOE-RL
Bill Cox	CHPRC
Richard Bloom	CHPRC
David Walter	CHPRC
Shannon Cary	DOE RL
Jane Hedges	Ecology

RIVER CORRIDOR CLOSURE PROJECT

DOE's Largest Environmental Cleanup Closure Project

TPA Quarterly Review

For Period: April - June 2011

Tri-Party Agreement

River Corridor Milestones:

M-16 M-89 M-92 M-93 M-94

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

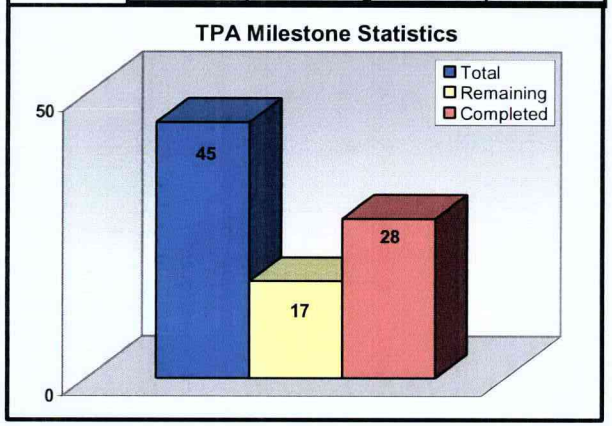
July 21, 2011

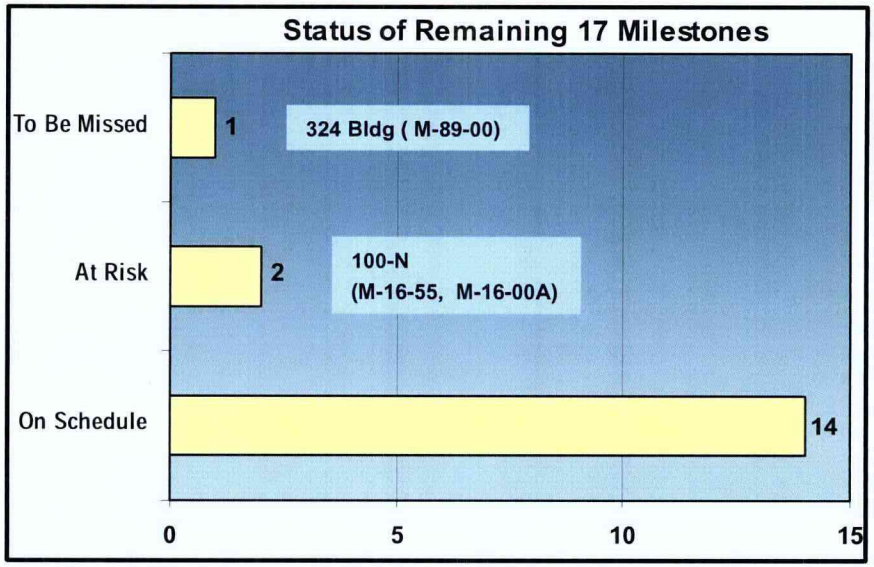
Protecting the Columbia River

E1012043

TPA Milestone Statistics
(Includes Target and Commitment Milestones)

Total	Remaining	Completed	Completed On	Completed Ahead
45	17	28	4	24





Quarterly Summary (April - June 2011)

- **Completed TPA milestones:**
  - -- No milestones were completed during this reporting period.
- **Approved five change requests on 6/30/11:**
  - -- **M-16-47 – Complete Interim Remedial Actions for 100-D Area (3 change requests)**
    - ➢ M-16-11-09 – Removed 100-D-8; site closure will be completed by 12/31/12 in support of M-16-00A
    - ➢ M-16-11-10 – Removed selected sites backfill/revegetation; completion of these actions will be governed by M-16-00
    - ➢ M-16-11-11 – Removed 118-D-2 and 118-D-3; site closures will be completed by 12/31/12 in support of M-16-00A
  - -- **M-16-51 – Complete Interim Remedial Actions for 100-H Area (2 change requests)**
    - ➢ M-16-11-12 – Removed selected sites backfill/revegetation; completion of these actions will be governed by M-16-00
    - ➢ M-16-11-13 – Removed 132-H-3; site closure will be completed under M-16-00A

M-16 Milestones - Remedial Action (milestones through 12/31/2012 and "at risk")

TPA MS No.	Compliance Date	Title	Status	Comments
M-16-47	12/31/11	Complete Interim RA for 100-D Area	On schedule	
M-16-51	12/31/11	Complete Interim RA for 100-H Area	On schedule	
M-16-56	02/28/12	Complete Interim RA for 100-IU-2 / 100-IU-6 Waste Sites Listed in 1999 100 Area Remaining Sites ROD (32 sites) as Described in RDR/RAWP	On schedule	
M-16-74	09/30/12	Complete Interim Remediation (to include excavation, loadout, closeout sampling, backfill) for all 300 Area "Inside the Fence" Waste Sites North of Apple Street, Except that the 300-268 and 300-123 Waste Sites Remediation Need Only Be Completed Through Excavation and Loadout	On schedule	Waste sites 300-4, 300-15, 300 RRLWS, and RLWS are impacted by 300 Area building retentions and are addressed in M-16-00B. Revegetation of M-16-74 waste sites will be completed under M-16-139.
M-16-55	12/31/12	Complete Interim RA for 100-N Area	At risk	Waste site cleanup and facility demolition are being coordinated to optimize 100-N remediation. DOE is monitoring progress to find opportunities to recover the milestone.
M-16-145	12/31/12	Complete Interim RA for 100-K Area Facilities and Waste Sites not Included as Phase 1,2, or 3 Work	On schedule	Sites in this milestone are those listed in IROD prior to August 2009. Remediation design of two failed confirmatory sites (600-29, 128-K-2) will begin in July. This activity will put the milestone back on schedule.
M-16-00A	12/31/12	Complete All Interim RA for 100 Area Units, with Exception of 100-K Area, by Specified Due Date as Approved in a RDR/RAWP	At risk	At risk due to M-16-55.

TPA MS No.	Compliance Date	Title	Status	Comments
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	To Be Missed	Soil contamination encountered under 324 B-Cell. This is a differing condition and will result in cost and schedule impacts. Change package will be submitted by 9/30/11 after new demolition strategy has been developed.
M-92 Milestone - 300 Area Special Case Waste				
M-92-16	09/30/15	Complete Removal and Transfer, and Initiate Storage of Phase III 300 Area Special Case Waste and Materials	On schedule	
M-93 Milestone - Reactors Final Disposition				
M-93-20	09/30/12	Complete 105N Reactor ISS	On schedule	
M-94 Milestone - 300 Area Surplus Facilities Disposition				
M-94-08	06/30/12	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, 340B, 3706, and 3720	On schedule	

Significant Accomplishments – For Last 3 Months:

M-16 – Remedial Action / Risk Assessment:

- Completed 6-month in-situ bioremediation operational testing at 100-N Area.
- Awarded 100-IU backfill subcontract; commenced backfill.
- Received approval of 24 waste site closure documents during this reporting period (includes 11 American Recovery and Reinvestment Act [ARRA] sites).
- ARRA – Commenced excavation and loadout of 100-F-57 to 15 feet deep.
- ARRA – Started remediation of 618-10 Burial Ground trenches.
- ARRA – Completed 618-11 non-intrusive characterization (NIC) activities; initiated preparation of NIC report.
- Submitted redline version of Rev. 0 human health risk assessment report (RCBRA Vol. II) to RL for review.
- Issued Decisional Draft human health risk assessment report (Releases to Columbia River Vol. II) to RL for review.

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

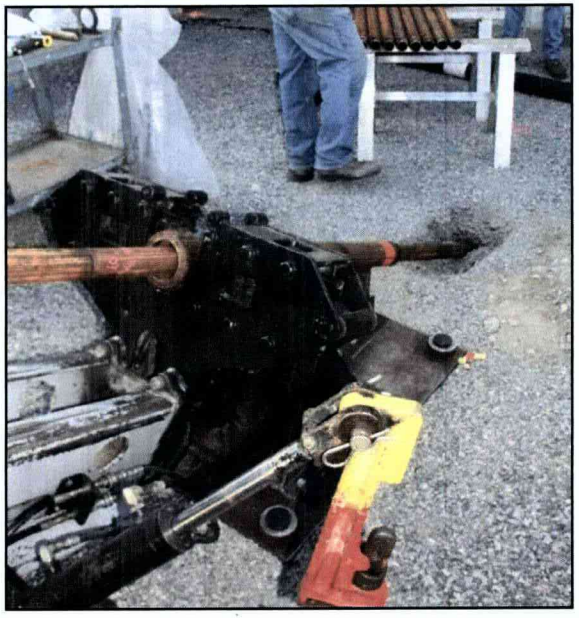
- Continued planning for remediation of new waste site 300-296 under B-Cell; obtained soil sample under B-Cell and sent to lab for analysis.

M-93 – Reactors Final Disposition:

- Completed 109N safe storage enclosure (SSE) construction.
- Began installation of 105N SSE structural steel beams and columns.
- Continued below-grade demolition of 105N fuel storage basin.

M-94 – 300 Area Surplus Facilities Disposition:

- Completed 308 glovebox /hood shipments to Perma-Fix for macroencapsulation.
- Completed wire-saw cutting 327 carousel and lower SERF cell; preparing for shipment to ERDF.



Hydraulic Push of Pipe Below 324 B-Cell

Cone Penetrometer Installation at 618-11 Burial Ground

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

ERDF: (ARRA scope)

- For period April-June 2011, disposed nearly 632,000 tons of waste in ERDF (includes U-Plant disposal); achieving a quarterly disposal record.
- Completed ERDF upgrades including gate entrance, batch plant, and septic system.
- Continued installation of tags and readers for transportation tracking system.

Sand Screening Progress at ERDF Batch Plant

Significant Actions Planned – For Next 3 Months:

M-16 – Remedial Action / Risk Assessment:

- Continue excavation at 100-C-7 and 100-C-7:1.
- Restart backfill operations in 100-D Area.
- Backfill TPA priority milestone sites in 100-H Area
- Complete excavation and loadout of 118-K-1 Burial Ground.
- Complete 100-IU-2/6 backfill of TPA sites.
- ARRA – Complete 100-F Area closeout sampling.
- Commence procurement for new subcontract for remaining 300 Area waste sites remediation.
- Submit Rev. 0 human health risk assessment report (RCBRA Vol. II) to RL for approval.

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

- Continue remediation planning activities for site 300-296 under B-Cell.

M-93 – Reactors Final Disposition:

- Complete below-grade demolition of 105N Fuel Storage Basin.
- Begin installation of 105N SSE roof and side panels.

M-94 – 300 Area Surplus Facilities Disposition:

- Complete Phase II of 327 below-grade demolition.
- Complete 309 dome wall cutting, demolition, and loadout.

ERDF: (ARRA scope)

- Complete construction of container, truck, and equipment maintenance/operations center facilities.
- Complete installation of transportation GPS units.

PERFORMANCE SUMMARY (includes ARRA)

Contract Inception (8/25/05) through June 2011

($K)

	IPB		CUMULATIVE			Previous Quarter Comparison			
						SCHEDULE VAR ($)		COST VAR ($)	
	BAC	EAC	BCWS	BCWP	ACWP	*Mar*	Jun	*Mar*	Jun
D4	549,976	544,306	361,091	419,047	324,024	*57,439*	57,956	*94,883*	95,023
Reactor ISS	87,920	91,628	68,887	68,998	66,820	*1,785*	111	*3,119*	2,178
Field Remediation	597,236	628,040	422,535	434,548	392,848	*9,479*	12,013	*47,435*	41,700
Waste Operations	429,003	393,576	282,139	382,754	297,220	*74,082*	100,615	*56,836*	85,534
ESFC	70,223	70,178	55,142	54,950	47,692	*1,765*	-192	*6,060*	7,258
Mission/General Support	275,786	338,970	235,830	235,830	227,332	*0*	0	*4,363*	8,498
Transition	3,979	3,747	3,979	3,979	3,747	*0*	0	*232*	232
Contingency	58,796	58,796							
TARGET COST TOTAL	**2,072,919**	**2,129,243**	**1,429,604**	**1,600,106**	**1,359,684**	***144,551***	**170,502**	***212,928***	**240,422**

Schedule Variance (PMB): $170,502K

- Acceleration of 300 Area and 100-N Area building demolitions.
- Accelerated remediation work at 100-B/C, CLIN 4, and 100-H Areas; partially offset by negative variances associated with delays of miscellaneous restoration, 118-K-1, and 100-IU-2/6 and 100-D closeouts.
- Earned value method for waste treatment changed via change control in April 2011 from percentage actual tons treated to apportioned effort of actual tons disposed (also applies to cost variance).
- ERDF Super Cells 9/10 construction completed ahead of schedule.
- ERDF transportation, treatment, and disposal support to accelerated work in FR and D4 Projects.

Cost Variance (PMB): $240,422K

- Significant underruns experienced in 300 Area building characterization, deactivation, and demolition activities.
- 100-D/F/H/K and 100-IU-2/6 remediation underruns. Partially offset by significant project support costs at all active dig sites, particularly in the 300 Area; as well as additional 100-C-7 excavation and concrete demolition costs; and unplanned costs in project management and support.
- 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 June 2011

($K)

	IPB		CUMULATIVE			Previous Quarter Comparison			
						SCHEDULE VAR ($)		COST VAR ($)	
	BAC	EAC	BCWS	BCWP	ACWP	*Mar*	Jun	*Mar*	Jun
RL0041.R1.2 - Cell 9 / ERDF	51,361	44,580	50,729	50,393	43,817	*1,488*	-336	*6,799*	6,576
RL0041.R1.3 - Acc Rem / ERDF	56,825	40,983	51,336	54,899	38,445	*2,104*	3,563	*15,387*	16,454
RL0041.R1.4 - Cell 10	37,672	26,743	31,160	37,672	26,743	*12,555*	6,513	*10,483*	10,930
RL0041.R1.5 - Waste Ops	15,000	35,756	5,214	7,261	7,808	*0*	2,048	*0*	-546
RL0041.R2 - 618-10	65,977	61,206	45,708	52,977	47,857	*5,000*	7,270	*1,905*	5,121
Contingency	7,735	7,735							
TARGET COST TOTAL	**234,571**	**217,004**	**184,147**	**203,202**	**164,670**	***21,144***	**19,055**	***34,571***	**38,533**

Schedule Variance (PMB): $19,055K

- ERDF Cells 9/10 construction completed ahead of schedule.
- ERDF transportation tracking system behind schedule due to subcontractor and supplier equipment procurement delays.
- Construction of ERDF maintenance facilities ahead of schedule; ERDF waste transportation and disposal less than planned.
- ERDF operations ahead of schedule due to higher than planned quantities being available.
- 100-F remediation started earlier than planned.
- 618-10 drum punch design and fabrication started ahead of schedule; infrastructure upgrades are ahead of schedule.

Cost Variance (PMB): $38,533K

- ERDF Cells 9/10 construction realized efficiencies.
- ERDF equipment and facility upgrade costs less than budgeted.
- Field Remediation project support requirements less than planned in baseline.
- Fewer comments received and streamlining the confirmatory sampling process (e.g., use of fewer sub-sites than originally planned) have resulted in significantly lower analytical costs and positive cost variances in several accounts.
- 618-10 well installation and overall infrastructure upgrades are under budget; partially offset by design costs impacted by multiple waterline design, material-at-risk calculations, and other miscellaneous document overruns.
- 618-11 non-intrusive characterization awarded contract was significantly less than budgeted.

RCC Issues

- Determining impact of radiological contamination encountered under the 324 facility. This will affect schedule for demolition of the 324 complex.

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

July 21, 2011

TPA Milestone Status

Number	Milestone Title	Due Date	Status / Comments
M-016-140	Submit revised RD/RA Work Plans for 100 K Area RODs as primary document(s) per HFFACO 11.6 with new proposed milestones • Complete removal of the K West Basin • Complete removal of all sludge (includes container, settler tank sludge) from K West Basin except knock out pot contents • Complete removal of knock out 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 105-KW reactor interim safe storage • Complete 105-KW reactor interim safe storage • Initiate soil remediation under KW Basin • Complete all interim response actions at the 100K Area.	3/31/2011	Complete All RD/RAWPs and TPA change packages were submitted on March 30, 2011. All RD/RAWPs and TPA change packages were approved on June 15, 2011.
M-016-170	Complete KOP material pre-treatment	9/30/2011	On schedule
M-016-171	Complete K Basin sludge treatment and packaging technology evaluation report and submit a schedule including proposed new interim milestones for bench scale or identified testing in order to meet M-016-173	3/31/2012	On schedule
M-016-172	Complete KOP material removal from 105-KW Fuel Storage Basin.	9/30/2012	On schedule
M-016-53	Complete the interim response actions for the 100 K Area within the perimeter boundary and to the river for Phase 1 actions.	12/31/2012	On schedule
M-016-174	Complete final design of sludge retrieval and transfer system.	9/30/2013	On schedule

TPA Milestone Status

Number	Milestone Title	Due Date	Status / Comments
M-093-22	Complete 105KE Reactor interim safe storage in accordance with remedial design/remedial action work plan.	7/31/2014	On schedule
M-016-175	Begin sludge removal from 105-KW Fuel Storage Basin	9/30/2014	On schedule
M-016-173	Select K Basin sludge treatment and packaging technology and propose new interim sludge treatment and packaging milestones.	3/31/2015	On schedule
M-016-143	Complete the interim response actions for the 100 K Area within the perimeter boundary and to the river for Phase 2 actions.	12/31/2015	On schedule
M-016-176	Complete sludge removal from 105-KW Fuel Storage Basin	12/31/2015	On schedule
M-016-178	Initiate deactivation of 105-KW Fuel Storage Basin	12/31/2015	On schedule
M-093-26	Initiate 105-KW Reactor Interim Safe Storage	12/31/2015	On schedule
M-016-181	Complete deactivation, demolition and removal of 105-KW Fuel Storage Basin	9/30/2019	On schedule
M-016-186	Initiate soil remediation under 105KW Fuel Storage Basin	12/31/2019	On schedule
M-093-27	Complete 105-KW Reactor Interim safe storage	12/31/2019	On schedule
M-016-00C	Complete All Response Actions in the 100 K Area.	12/31/2020	On schedule

June 2011

M-016-53 and M-016-143

- **ACCOMPLISHMENTS**
  - Demolition of the 181KW Intake Structure has been completed down to the current water level in the Columbia River
  - The intake pumps to the 181KE Intake Structure have been removed
  - Demolition of the 183.1KE Headhouse below grade structure is 80% complete
  - Demolition of the 183.2KE Sedimenation Basins is in progress and working around migratory bird nests
  - Demolition of the 183.3KE Filter Beds is 40% complete
  - Demolition of 183.4KE and 183.4KW Clearwells is 90% complete
  - Sampling Instruction for sampling the 183.2KE Sedimentation Basins, 183.3KE Filter Beds, and 183.4KE and 184.4KW Clearwells was prepared and approved by DOE-RL and EPA.
  - Continued soil and substructure remediation of the 105KE Basin
- **WORK PLANNED IN NEXT 90 DAYS**
  - Complete demolition of 183 KE and KW water treatment facilities
  - Complete demolition of 181 KE and KW river water intake structures
  - Continue with other removal and waste site remediation actions as scoped

Pumps removed from 181KE Intake Pump House

181KW Intake Pump House

183KE Sedimentation Basin

183KW Clearwells

Demolition and load out in 105KE Fuel Storage Basin EAST Annex

Load out of demolition debris from 105KE Fuel Storage Basin WEST Annex

M-016-53 and M-016-143 Facilities Status

Phase 1 M-016-053: December 31, 2012	Phase 2 M-016-143: December 31, 2015	Phase 3 M-16-00C: December 31, 2020
110KW Gas Storage Facility	115KW Gas Recirculation Building	105KW Water Tunnel
110KE Gas Storage Facility	116KW Reactor Exhaust Stack	142K CVDF
115KE Gas Recirculation Building	117KW Exhaust Air Filter Building	1506K1 Fiber Optics Hut
116KE Reactor Exhaust Stack	118KW Horizontal Control Rod Storage Cave	165KE Power Control Bldg
117KE Exhaust Air Filter Building	119KW Exhaust Air Sampling Building	142KA CVDF Generator Bldg
118KE Horizontal Control Rod Storage Cave	166AKE Oil Storage Facility	165KW Power Control Bldg
119KE Exhaust Air Sampling	166KE Oil Storage Vault	167K Cross-tie Tunnel Bldg
1706KE Radiation Control Counting Lab	166KW Oil Storage Vault	1717K Maintenance Shop
1706KEL Developmental Lab	1705KE Effluent Water Treatment Pilot Plant	1724K Maintenance Shop
1706KER Water Studies Recirculation Bldg	1713KER Shop Building	1724KA Storage Shed
1713KE Warehouse	1713KW Warehouse	181KW River Pump House
1714KE Oil and Paint Storage Shed	1714KW Oil and Paint Storage Shed	183KE Chlorine Vault
183.4KW Clearwell	1720K Administration Office Building	183.2KE Sedimentation Basin
183.1KW Head House	1724KB Gas Bottle Storage Facility	183.3KE Filter Basin
181KE River Pump House	182K Emergency Water Reservoir Pump House	183.4KE Clearwell
183.2KW Sedimentation Basin	183.5KW Lime Feeder Building	183.1KE Headhouse
183.3KW Filter Basin	183.6KW Lime Feeder Building	183.5KE Lime Feeder
MO048 Construction Lunch Trailer	MO101 Administration	183.6KE Lime Feeder
MO060 Conference Trailer	MO102 Administration	185K Potable Water Treatment Plant
MO872 Leased trailer	MO214 Administration	1908K Outfall Structure
MO873 Leased trailer	MO382 Office	1908KE Outfall Structure
MO969 HPT Change Trailer	MO401 Administration	190KE Main Pump House
1605KE Guard Tower East	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
		1605KW Guard Tower West

Field Work In Progress

Demolition Complete

Closure Actions and Documentation Complete

M-16-53 and M-16-143 Waste Sites Status

Phase 1 M-016-053 December 31, 2012		Phase 2 M-016-143 December 31, 2015		Phase 3 M-016-00C December 31, 2020	M-016-57 (Initiate soil remediation at K East Fuel Storage Basin)	Legend
100-K-3	100-K-71	100-K-1	120-KE-8	100-K-35	UPR-100-K-1	Excavation in progress
100-K-6	100-K-77	100-K-4	120-KE-9	100-K-43		Failed CSNA
100-K-18	100-K-79	100-K-5	120-KW-6	100-K-47		Mixed Failed CSNA and RTD
100-K-19	116-KE-1	100-K-13	126-KE-2	100-K-55		Closure Sampling and Docs in Process
100-K-34	116-KE-3	100-K-14	130-K-2	100-K-56		RSVP approved
100-K-36	116-KE-6A	100-K-25	130-KE-2	100-K-72		Backfill complete
100-K-37	116-KE-6B	100-K-27	130-KW-1	100-K-73		Revegetation complete
100-K-38	116-KE-6C	100-K-48	130-KW-2	100-K-74		Waste site listing is based on DOE/RL-97-16 TPA CN320
100-K-46	116-KE-6D	100-K-49	132-KW-1	100-K-75		
100-K-53	118-KE-2	100-K-54	1607-K1	100-K-80		
100-K-55(pt#1)	120-KW-1	100-K-55	1607-K2	100-K-81		
	120-KW-2	100-K-56(pt#2)	1607-K4	100-K-82		
100-K-56	120-KW-3	100-K-60	1607-K5	116-K-3		
100-K-57	120-KW-4	100-K-61	1607-K6	116-KE-2		
100-K-62	120-KW-5	100-K-66	100-K-94	116-KW-2		
100-K-63	120-KW-7	100-K-67	100-K-97	118-KW-1		
100-K-64	130-KE-1	100-K-83	100-K-101	128-K-2		
100-K-68	132-KE-1	116-KW-1	100-K-103			
100-K-69	1607-K3	118-KW-2	100-K-104			
100-K-70	100-K-102	120-KE-1	100-K-105			
		120-KE-2	100-K-106			
		120-KE-3	100-K-107			
		120-KE-4	100-K-108			
		120-KE-5	100-K-109			
		120-KE-6	100-K-110			

M-016-170 and M-016-172 Knockout Pot Material Pretreatment and Removal

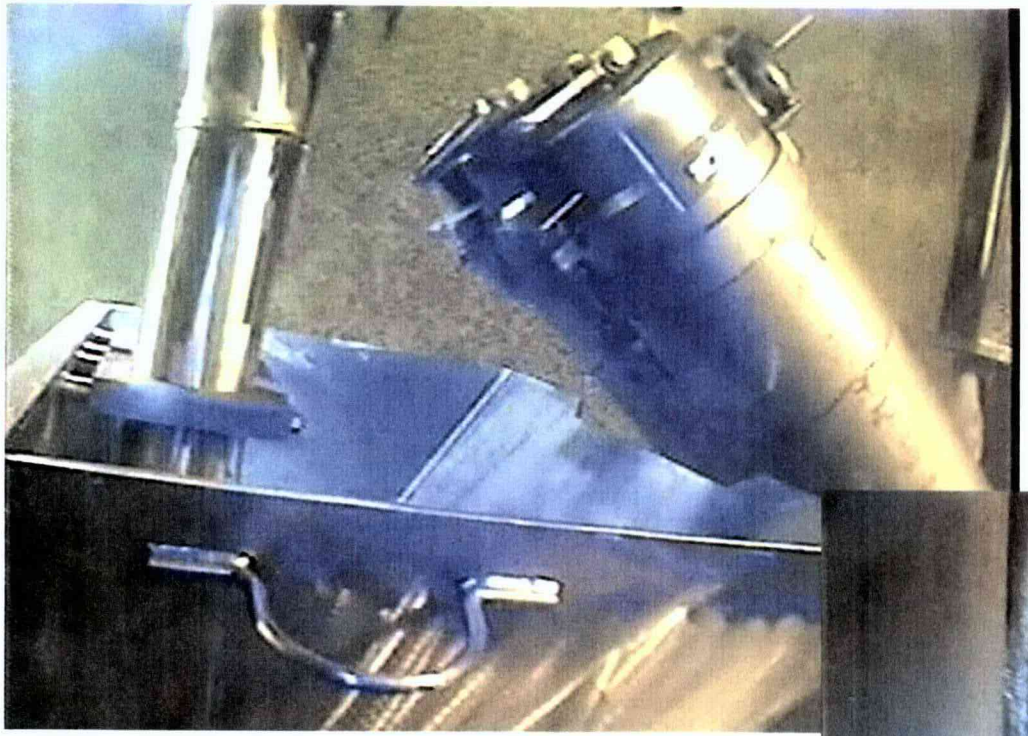
- **ACCOMPLISHMENTS**
  - **Knockout Pot (KOP) Sludge Pretreatment**
    - Initiated KOP pretreatment operations in the KW Basin consisting of density separation and size reduction
    - Clarification was added to the RD/RAWP by use of a TPA change notice associated with completion criteria associated with KOP pretreatment involving KOP material yet to be generated from the processing of found fuel and SNF that will be received from burial ground remediation actions
  - **KOP Sludge Processing**
    - Qualification testing using sludge simulants was completed at MASF
    - Fabrication of system components has been completed, delivered to MASF, and installed in KOP Test Tank for testing with sludge simulants
    - Procurement of the copper inserts that will be used to hold the KOP product material in the MCO baskets has progressed through contract award and ordering materials
    - Procurement of additional Multi Canister Overpacks (MCOs) is progressing including the ordering of material and fabrication
    - Preparation of the Remedial Design Report for submittal to DOE-RL and EPA for approval is in progress

M-016-170 and M-016-172 Knockout Pot Material Pretreatment and Removal

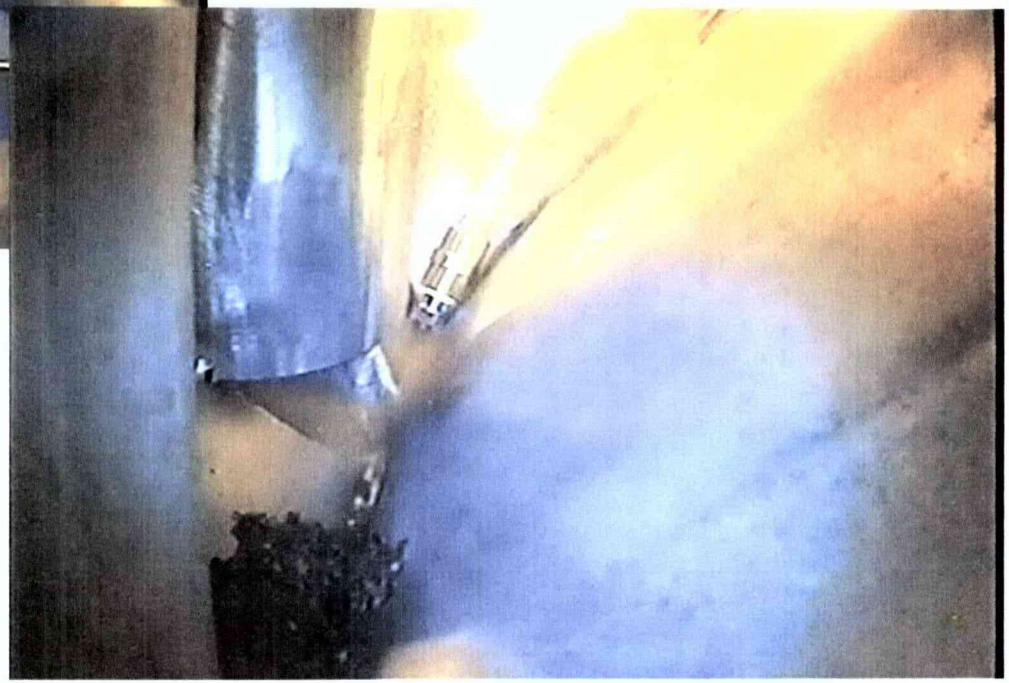
- **WORK PLANNED NEXT 90 DAYS**

  - **Knockout Pot (KOP) Sludge Pretreatment**
    - Complete KOP pretreatment

  - **KOP Sludge Processing**
    - Fabricate production hardware associated with the KPS for being installed in the KW Basin
    - Complete a formal design review of the KPS
    - Prepare changes to air permitting and NEPA documentation associated with CVDF and CSB for processing and interim storage of KOP product material
    - Submit a decisional draft of the Remedial Design Report for KPS processing to DOE-RL and EPA for review
    - Fabricate additional Multi Canister Overpacks (MCOs)

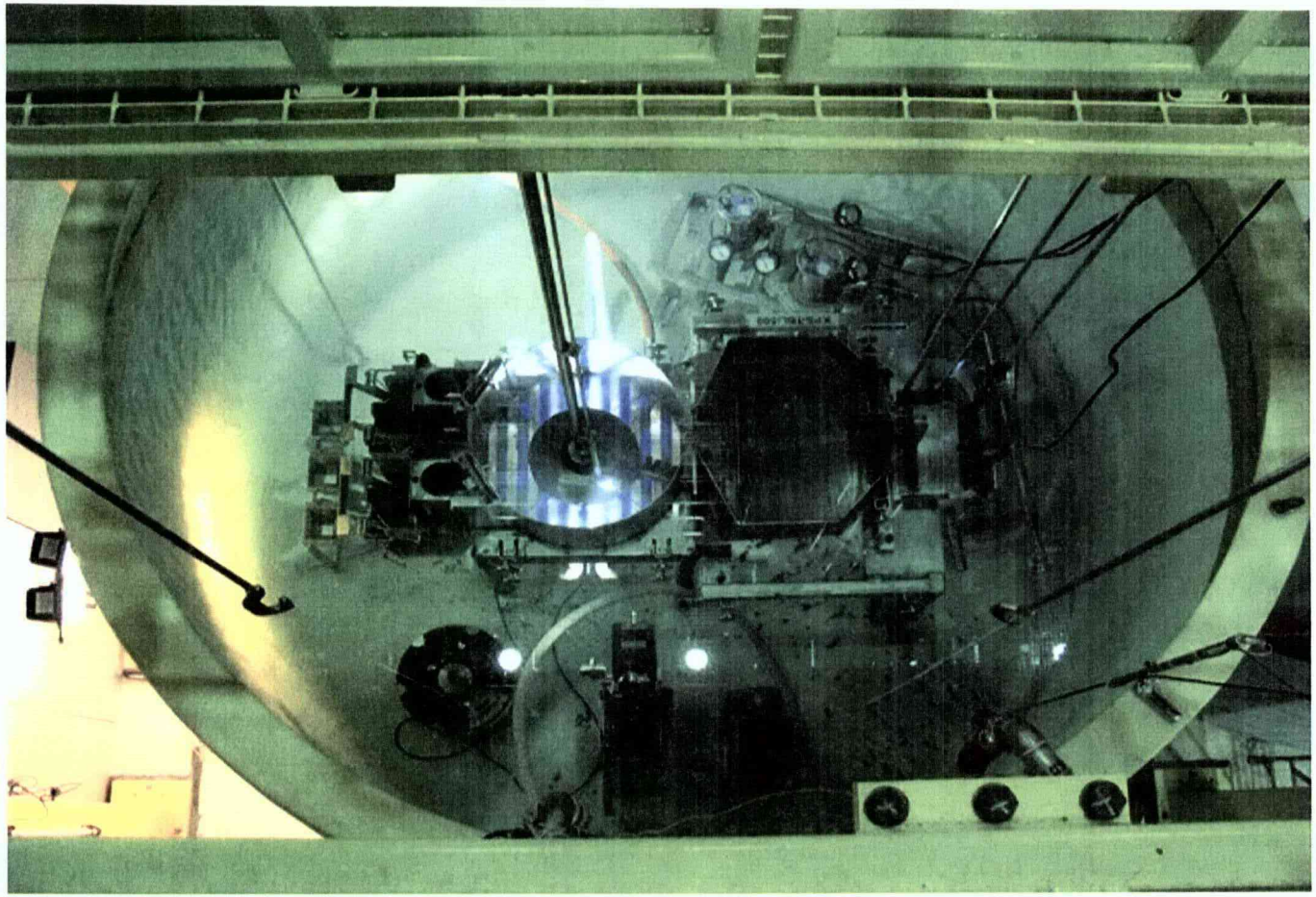


KOP Pretreatment Operations – Density Separation Step in KW Basin



KOP Pretreatment Operations

Mock up of KOP Sludge Processing System at MASF Test Facility



M-016-171 and M-016-173
K Basin Sludge Treatment and Packaging

- **ACCOMPLISHMENTS**

  - **Sludge Treatment and Packaging Technology Evaluation**
    - Testing of alternative treatment technology of size reduction for enhancing the warm water oxidation process, chemical treatment, and drying were performed using sludge simulants
    - A technology evaluation was completed and report prepared assessing the technical, operability, radiological, and regulatory acceptance considerations of alternative technologies for treating the sludge to mitigate its hydrogen generation characteristics and its solidification for disposal
    - A Decision Support Board was convened to review the alternative technologies that ranged from warm water oxidation, chemical treatment, and vitrification for purposes of selecting the most promising. Staff from EPA and the DNFSB attended. Warm water oxidation followed by immobilization was identified as the preferred.

M-016-171 and M-016-173
K Basin Sludge Treatment and Packaging

- **WORK PLANNED NEXT 90 DAYS**

  - **Sludge Treatment and Solidification Technology Evaluation**
    - Contractor submit technology evaluation report and recommendation to DOE-RL for review and approval
    - DOE-RL review and approval of technology evaluation report and recommendation

M-016-174, M-016-175, and M-016-176
K Basin Sludge Retrieval and Removal

- **ACCOMPLISHMENTS**

  - **K West Basin Annex Structure and Non-Processing Systems Design and Construction**
    - Design of the Annex structure and the non-process related systems has progressed to a 90% level and a formal design review was completed
    - Field construction associated with initial modifications to the existing annex involving the addition of temporary barrier to separate the basin and annex air spaces, installing a fire wall in the existing annex, and adding structural bracing is in progress
    - Procurement of and selection of a subcontractor for the construction of the annex is in progress.

  - **Processing System Design, Testing, and Procurement**
    - Continued with full scale integrated testing of the retrieval, transport, and storage systems continues at MASF
    - Completed characterization of Settler Tank sludge from Container 230 at PNNL

M-016-174, M-016-175, and M-016-176
K Basin Sludge Retrieval and Removal

- **WORK PLANNED NEXT 90 DAYS**

  - **K West Basin Annex Structure and Non-Processing Systems Design and Construction**
    - Complete construction of the initial modifications to existing KW Basin annex
    - Complete the final design of the new annex structure
    - Select a contractor for constructing the new annex
    - Prepare decisional draft of the Remedial Design Report for the Engineered Container Retrieval and Transfer System
  - **Processing System Design, Testing, and Procurement**
    - Continue full scale integrated testing of the retrieval, transport, and storage systems continues at MASF
    - Continue with design of systems and components associated with the retrieval and removal of sludge
    - Develop transportation safety documentation associated with the transfer of sludge to T Plant
    - Receive initial characterization data from Container 210 samples
    - Data validation of Container 230 Setter Tank characterization results

M-93-22 KE Reactor Interim Safe Storage

- **ACCOMPLISHMENTS**
  - Statement of work has been prepared and procurement actions are in progress for the design of modifications to the 105-KE Reactor Building for placing it in interim safe storage

- **WORK PLANNED NEXT 90 DAYS**
  - Initiate design of modifications to the 105-KE Reactor Building for placing it in interim safe storage

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	Future fuel and sludge handling will have potential to deposit additional sludge on K West Basin floor. Mitigation: Design sludge handling system with provisions to minimize depositing additional sludge on basin floor.	
Facility D4	Drawing unavailability / errors or undocumented facility configuration modifications cause work stoppage during facility isolation. 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.	
Sludge Treatment	Results from the testing program yield different outcome than expected forcing redesign and/or different technology selection. Mitigation: Conduct testing necessary to support Critical Decision-2/3 in a timely manner.	
Waste Site Remediation	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.	

PBS RL-0012 – Project Performance

WBS & Title	Contract to Date ($000)					BAC
	BCWS	BCWP	ACWP	SV	CV	
012.01 - Program Management	15402	15402	13882	-0	1520	25643
012.02 - Basin Operations & Maintenance	28017	28017	28550	0	-534	64607
012.03 - Facility Operations	11814	11814	12892	0	-1078	42752
012.09 - Sludge & Fuel Disposition Management	5190	5198	6620	9	-4422	7318
012.11 - 100K Facilities Deactivation	524	524	545	-0	-21	524
012.13 - KE Basin Demolition	9220	9220	10399	0	-1180	9220
012.14 – KW Basin Decontamination & Deactivation	0	0	1	0	-1	16455
012.15 0 KW Basin Demolition	0	0	0	0	0	25864
012.16 - Sludge Treatment Project	105161	100394	99619	-4766	776	275432
012.90 - Assessments - PBS RL-12	7457	7457	8544	-0	-1087	13300
012.98 - Transition	21768	21768	23177	0	-1409	21768
012.99 - PBS RL-12 G&A and Direct Distributables	27325	27325	26524	0	801	87516
TOTAL RL-0012 - SNF Stabilization and Disposal	231876	227118	230752	-4757	-3634	590398

PBS RL-0012
Project Performance – continued

- **SCHEDULE PERFORMANCE** (-$4.8M / -2.1 %)
  - **The STP negative variance is due to:**
    - Management decisions to hold procurement of the multi-canister overpacks (MCOs) until engineering evaluations were conducted (-$1.5M);
    - Difficult contract negotiations with the Phase 2 technology vendors (-$0.7M);
    - Several subcontracts for the Engineered Container Retrieval, Transport, and Storage (ECRTS) were not awarded as planned, and are now behind schedule (-$0.6M);
    - KOP Design, Testing and Pre-Treatment are activities behind schedule (-$1.7M); and
    - Engineered Container 210 sampling is behind schedule due to 100K basin vacuuming activities (-$0.3M).
- **COST PERFORMANCE** (-$3.6M / -1.6%)
  - **The 100K negative variance (-$3.6M) has two main components:**
    - 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.
    - K West Basin Operations (-$0.7M) impacts remaining from implementation of operational controls and cost to maintain aging facilities in the 100K Area.
  - The PBS RL12 G&A and Assessments negative variance (-$1.7M) 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

	Contract to Date ($000)					
WBS and Title	BCWS	BCWP	ACWP	SV'$	CV $	BAC
041.02.01.01 – 100K Area Planning and Integration	752	752	422	0	330	1375
041.02.02.01 – 100–K Group 1 Structures Remediation	23901	23273	26662	-628	-3388	25169
041.02.02.02 – 100–K Group 1 Remediation	43085	41906	35119	-1179	6786	114194
041.02.03.01 – 100–K Group 2 Structures Remediation	3351	3154	3390	-197	-235	6988
041.02.03.02 – 100–K Group 2 Remediation	3312	5641	814	2329	4827	5641
041.02.04.01 – 100–K Group 3 Structures Remediation	13444	6908	8093	-6536	-1185	34087
041.02.04.01 – 100–K Group 3 Remediation	92	835	0	743	835	835
041.02.06.01 – KW Deactivation	17327	18993	18164	1666	829	20427
041.02.07.01 – 100K Area Utilities Re-Route	26029	26021	35390	-9	-9369	26029
041.02.08.01 – 105KE Reactor Disposition - ISS	15686	13906	13133	-1781	772	21843
041.02.08.02 – 105KW Reactor Disposition	0	0	14	0	-14	22696
041.02.08.03 – Site Preparation	4738	4719	2852	-19	1867	5672
041.02.08.04 – 105KE Obstruction Removal	3749	3742	3171	-6	571	4058
041.02.08.05 – Core Removal	6111	6106	8739	-5	-2633	6362
041.02.08.06 – 105KE Demolition	0	0	0	0	0	0
041.02.09.01 – 618-10 & 11 Burial Grounds Remediation	0	0	0	0	0	36096
041.02.10.01 – RL41 Transition Sub Assignments	0	0	29	0	-29	0
041.02.11.01 – 100K Project Management	15273	14124	16579	-1149	-2454	49985
041.02.12.01 – 100K Bioremediation	0	0	0	0	0	4916
041.90 - PBS RL-0041 Assessments	5146	5146	8589	0	-3443	28047
041.98 - WBS 041 Transition	12576	12576	10669	0	1907	13009
041.99 - PBS RL-41 PRC G & A and Direct Distributables	31748	31748	26951	0	4797	87963
Total – RL-0041 – Nuc Fac &D – RC Closure Project	226321	219551	218779	-6770	771	514017

PBS RL-0041
Project Performance – continued

- **SCHEDULE PERFORMANCE** (-$6.7M /-3.0%)
  - **Negative schedule variance is due to:**
    - Delays in waste site remediation around the 105KE Reactor bldg
    - Delays to completion of the 100K Utilities Reroute projects impacting the performance of D4 Cold & Dark activities
    - Waiting for a Baseline Change Request to add additional BCWS for Core Design.
    - Delayed the 183.7E Tunnel to outyears
    - KW Debris can not claim additional performance until OTRS is approved and IP-2 shipped
- **COST PERFORMANCE** (+$0.7M/+0.4%)
  - **Cost variance is due to:**
    - The positive cost performance is primarily from Waste Site Remediation (100-K-55 Part 1 and 100-K-56 Part 2) which were completed ahead of schedule with less effort than originally planned
    - In addition, K West Deactivation debris removal campaign exceeded performance goals and G&A/direct distributable costs were less than planned
    - These positive variances are being offset by 100K Project Management activities where FY10 general site cleanup labor was utilized more than planned
    - 100K Area Utilities Reroute due to realized risks and design changes

U.S. DEPARTMENT OF ENERGY

TPA M-36-01

Quarterly Performance Report

July 21, 2011

Shannon Ortiz, Project Manager

U.S. DEPARTMENT OF
ENERGY

MILESTONE DESCRIPTION AND DELIVERABLE

The USDOE shall prepare and submit to EPA and Ecology a report setting out the lifecycle scope, schedule, and cost for completion of the Hanford Site cleanup mission.

The initial 2011 Hanford Lifecycle Scope, Schedule and Cost Report (Lifecycle Report) is due no sooner than July 25, 2011, and follow on reports are due January 31 of each year. (The 2012 Lifecycle Report is due January 31, 2012).

RL PROGRAM MANAGERS ASSESSMENT OF CONTRACTOR PERFORMANCE

The contractor responsible for preparation of the Lifecycle Report is Mission Support Alliance, Portfolio Management.

There are no performance issues as this time.

SIGNIFICANT ACCOMPLISHMENTS FOR THE LAST THREE MONTHS

1. The 2011 Lifecycle Report has been finalized on time and is scheduled for submittal to EPA and Ecology by July 29, 2011.
2. The 2011 Lifecycle Report has been reviewed by DOE leaders at Hanford and at DOE-HQ.
3. DOE-RL has provided advance, courtesy copies of the 2011 Lifecycle Report to EPA, Ecology and Oregon Office of Energy.
4. DOE-RL developed a Tribal consultation and public outreach process for the 2011 Lifecycle Report.
5. Work is underway on the 2012 Lifecycle Report.

SIGNIFICANT PLANNED ACTIONS FOR THE NEXT SIX MONTHS

1. Implement public outreach process and consult the Tribal Nations on the 2011 Lifecycle Report, which includes the Listserv Notice, Fact Sheet, HAB briefings, Tribal consultation, placement of the report on the RL website.
2. The public input related to the 2011 Lifecycle Report concludes on November 11, 2011. Feedback needs to be provided in writing and will be used to influence the 2013 and future Lifecycle Reports.
3. Complete the 2012 Lifecycle Report by January 31, 2012.

U.S. DEPARTMENT OF ENERGY

BUDGET/COST STATUS

No issues identified.

ISSUES

1. The 2012 Lifecycle Report, currently under development, has an extremely compressed schedule due to the first two annual reports (the 2011 and the 2012 Reports) being issued within a five month period. The 2012 Report will not have the benefit of the full public input process prior to issuance, nor will it vary significantly from the 2011 Lifecycle Report in terms of cost and schedule estimates.

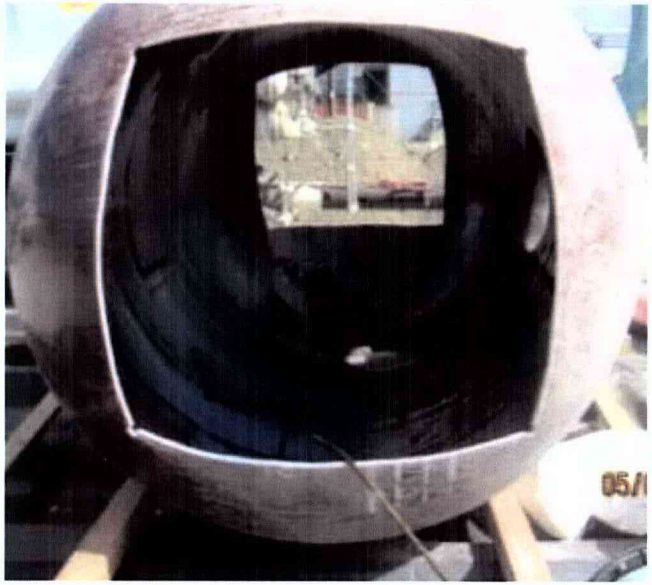
   The 2013 Lifecycle Report, which will be developed in 2012 will reflect changes related to new planning case budgets as well as public, Tribal and regulator input received.

NON-TPA REGULATORY ISSUES/POTENTIAL IMPACTS TO TPA

No major issues identified.

PFP Closure Project TPA Milestone M-083

Removed



Clean Closed

2721-Z Diesel Tank (UST)

July 2011
Tri-Party Agreement Milestone
Status Report

Ecology Project Manager – R. Bond
DOE-RL Project Director – E. Mattlin
PFP Closure Project – D. Del Vecchio
CHPRC Environmental – S. Richey

M-83 Status for Interim Milestones

(as of 6/30/11)

TPA No.	TPA Commitment Date	Milestone Title	Status
M-083-32	9/30/11	COMPLETE CLOSURE OF THE PFP 241-Z TSD UNIT	***Complete***
M-083-42	9/30/11	COMPLETE TRANSITION AND DISMANTLEMENT OF THE 241-Z WASTE TREATMENT FACILITY	***Complete***
M-083-24	6/30/12	SUBMIT S&M PLAN	***On Schedule***
M-083-43	9/30/13	COMPLETE TRANSITION OF THE 242-Z WASTE TREATMENT FACILITY AND 236-Z PRF	***On Schedule***
M-083-44	9/30/15	COMPLETE TRANSITION OF THE 234-5-Z (PFP), 243-Z LLW Treatment, 291-Z and Z-1 Stack	***On Schedule***

Accomplishments

- Removed and clean closed 2721-Z diesel Underground Storage Tank (UST) and associated piping
- 2736-Z/ZA/ZB vault complex cold and dark and is being prepared for demolition
- PFP Demolition Removal Action Work Plan Draft is in RL concurrence review
- Revised PRF pencil tank size reduction system implemented in PRF canyon

Accomplishments

- Removed and dispositioned 16 Glove Boxes/Hoods during the quarter (155 total removed, 145 shipped by PRC)
- Over 689 Linear Feet of Asbestos Removed from PFP Piping and Ducting during the quarter (more than 15,000 total feet removed)
- 734 Feet of Process Vacuum Piping Removed for the quarter (1,210 Total Feet Removed)
- 370 Feet of Transfer Lines Removed for the quarter (491 Total Feet Removed)

Planned Activities

- Demolish 2721-Z, 2736-Z/ZA/ZB
- Continue glovebox clean out and removal
- Continue PRF pencil tank removal
- Submit RAWP and S&M Plan to Ecology for Review

Schedule / Cost Performance
Fiscal Year to Date Status (through June)

RL-0011 - Nuclear Material Stabilization & Disposal (PFP)	Fiscal Year to Date				
	BCWS	BCWP	ACWP	SV$	CV$
(ARRA/ & Base) -Total	$102,228	$109,934	$120,902	$7,706	($-10,968)
					(Numbers are rounded to the nearest $0.1M)

FYTD Schedule Performance: ($7.7M/7.5%)

- Re-Planning of PFP KPP Glovebox work scope incorporating recovery plan to complete work by 9/30/11.
- Gain offset by:
  - Breathing Air Issues
  - Beryllium Issues
  - Radiological Controls Issues
  - Contamination Events
  - Reallocation of Resources to support KPP Glovebox Work

FYTD Cost Performance: ($-10.9M/-10.0%)

- Inefficiencies in D&D due to staffing an involuntary P/Q shift to support RMA/RMC process line work; inefficiencies associated with 234-5Z process area D&D teams providing support for electrical isolations, impacts from stop work associated with a contamination event, additional staff required to support breathing air versus PAPR work; increased overtime due to complexity of work; and, more time required to complete 236ZB complex intrusive investigations due to new Radiological Controls requirements for work above eight feet.

Issues

Regulatory Issues:

- None

Non-Regulatory Issues:

- Potential funding shortfall FY2012

Land Disposal Restrictions Report
(Tri-Party Agreement Milestone M-26-01)
Quarterly Presentation
July 21, 2011

Tri-Party Agreement

Deborah Singleton, Ecology Lead
Michael Collins, RL Project Lead
Dabrisha Smith, ORP Project Lead

Tri-Party Agreement

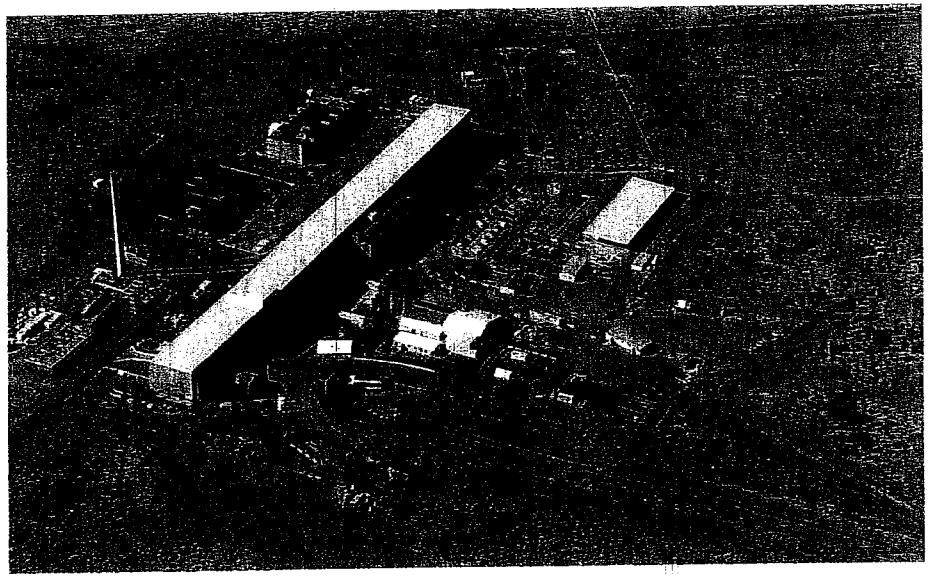
Accomplishments and Actions

- Accomplishments
  - CY 2010 LDR Summary Report submitted 04/19/11 – Ecology comments have been received
  - Site-specific LDR variance request for 42 containers of high dose concreted (ANL) waste submitted – Ecology comments have been received

- Actions Planned for the Next Six Months
  - Address Ecology comments on the CY 2010 LDR Summary Report
  - Address Ecology comments on the LDR variance request
  - Start storage assessments of potential mixed wastes at IMUSTS not associated with a building

Department of Energy – Richland Operations Office

Tri-Party Agreement Quarterly Milestone Review M-91 Series



July 21, 2011

EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

www.em.doe.gov

Significant Accomplishments of the Last Three Months

- M-091-03 Project Management Plan
  - Annual revision submitted 06/27/11
  - Changes in this revision:
    - Resolve comments from 2010 Project Management Plan
    - Add scope of M-16-93 CERCLA Work Plan
    - Address no-path forward waste

Significant Accomplishments of the Last Three Months

- M-091-40 Retrievably Stored Waste (CH)
  - Volume retrieved – 1685 m^3 (638 m^3 in the quarter) – Estimated completion of 2000 m^3 – 08/11
  - Volume removed from trenches but not at a TSD – 434 m^3
  - Continued retrieval in 218-E-12B and 218-W-4B, Trench 11
  - Started excavation in 218-W-4B, Trench 7

- M-091-41 Retrievably Stored Waste (RH)
  - Total volume retrieved – 80 m^3 (18 m^3 in the quarter)
  - Volume removed from trenches but not at a TSD – 6 m^3

Significant Accomplishments of the Last Three Months

- M-091-42 MLLW (CH, small container)
  - Volume shipped – 507 m^3 (since 09/15/10) (103 m^3 in the quarter)
  - Volume treated – 367 m^3 (since 09/15/10) (48 m^3 in the quarter)
  - Sodium-contaminated debris waste (formerly no-path forward) – treated and disposed
  - 27 m^3 in storage (volumes increased due to TRU waste dropouts)

- M-091-43 MLLW (RH and large container)
  - Volume shipped – 502 m^3 (since 09/15/10) (331 m^3 in the quarter)
  - Volume treated – 225 m^3 (since 09/15/10) (94 m^3 in the quarter)
  - 107 m^3 in storage

Significant Accomplishments of the Last Three Months

- M-091-44 TRUM Waste (RH and large container)
  - Volume shipped – 609 m^3 (151 m^3 in the quarter)
  - Volume repackaged – 522 m^3 (221 m^3 in the quarter) resulting in 218 m^3 of certifiable waste
  - Volume assayed – 216 m^3 (99 m^3 MLLW, 117 m^3 TRUM waste)
  - 6,588 m^3 in storage

Significant Accomplishments of the Last Three Months

- M-091-46 TRUM waste (CH, small container)
  - Volume shipped to WIPP or AMWTP – 1,135 m^3 (256 m^3 in the quarter) – 1,000 m^3 milestone met
  - Volume repackaged – 837 m^3 (43 m^3 in the quarter) – Estimated completion of 850 m^3 – 07/11
  - Volume certified ready to ship – 18 m^3
  - Volume ready to certify – 249 m^3
  - 1,549 m^3 in storage

  - Non-TPA – DOE-EM 90% TRU Waste Disposition – Hanford
    - Start – 16,553 m^3
    - Remaining – 11,840 m^3

Fiscal Year 2011 (through June 2011) Performance Measurement

Dollars in Thousands

Title	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance	Cost Variance
Central Waste Complex	5,843.1	5,860.4	6,220.3	0.3%	-6.1%
Waste Receiving and Packaging Facility (WRAP)	6,593.7	6,890.1	6,675.2	4.5%	3.1%
T Plant	8,447.9	8,551.9	7,834.5	1.2%	8.4%
MLLW Treatment	10,762.3	7,568.5	7,187.2	-29.7%	5.0%
TRU Waste Retrieval	26,979.4	29,015.6	35,453.2	7.5%	-22.2%
TRU Waste Repackaging	15,870.5	14,321.3	13,582.6	-9.8%	5.2%
TRU Waste Disposition	11,103.6	11,917.2	9,833.8	7.3%	17.5%
Project Management	13,826.9	13,826.8	15,695.7	0.0%	-13.5%

Variance Analysis

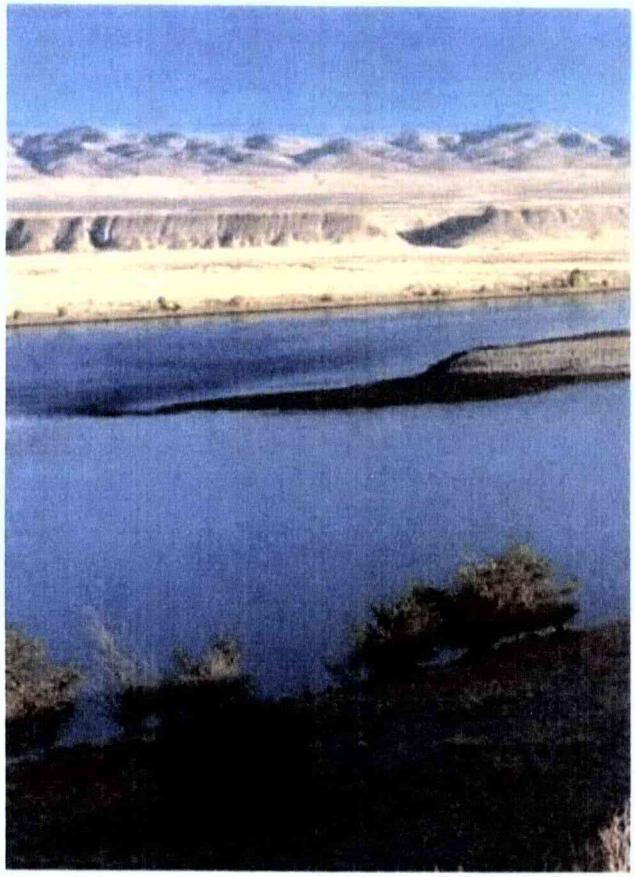
- FYTD Schedule Variance: The negative MLLW Treatment variance is due to lack of feed from retrieval.

- FYTD Cost Variance: The negative TRU Waste Retrieval variance is due to the condition of the containers and extra resources to meet Recovery Act commitments. The negative Project Management variance is due to extra resources needed to meet Recovery Act commitments. The positive TRU Waste Disposition variance is due to work proceeding more efficiently than expected.

Actions Planned for Next Six Months

- M-091-03 – Address comments on the 2011 Project Management Plan
- M-091-40
  - Continue retrieval
  - Meet the 2,000 m^3 retrieved milestone
- M-091-42 – Continue treatment
- M-091-43 – Continue treatment
- M-091-44 – Continue repackaging waste into a certifiable waste form at Permafix Northwest
- M-091-46
  - Continue repackaging
  - Meet the 850 m^3 repackaged milestone
- Appears activities will be suspended due to budget constraints

CH2MHILL
Plateau Remediation Company



Soil and Groundwater Remediation Project Milestone Review

M-015-00, M-016-00, M-024-00, M-037-00, M-085-00

Tri-Party Agreement

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

Third Quarter 2011
July 21, 2011

U.S. DEPARTMENT OF ENERGY

One Culture. One Team.

Quarterly Milestone Summary
(April – June 2011)

TPA Number	Completion Date	Milestone Title
M-091-40L-030	04/28/11	PMM Submittal Jan-Mar 2nd Qtr FY11 Burial Ground Sample Results
M-024-58D	05/12/11	Initiate Discussions of Well Commitments
M-024-62-T01	06/20/11	Conclude Discussions of Well Commitments

Change Request	Approval Date	Description
C-11-03	05/09/11	Revised 200-DV-1 and 200-EA-1 Operable Unit Waste Site TPA Appendix C Assignment
C-11-02	05/17/11	Assignment of 200-E-45 Waste Site to 200-DV-1 Operable Unit in TPA Appendix C
M-16-11	06/14/11	Addition of Hanford Federal Facility Agreement and Consent Order (HFFACO) M-016-186 Interim Milestone for Initiation of Soil Remediation Under 105-KW Fuel Storage Basin.
M-15-11	06/14/11	Extension of Hanford Federal Facility Agreement and Consent Order (HFFACO) Milestone M-015-90.
M-24-11	06/20/11	Groundwater Protection, Monitoring and Remediation Well Installation Priority List Update Through CY 2014, and M-024-65 Creation.

Milestone Status

TPA Number	Commitment Date	Milestone Title	Status
M-015-00 –	**Complete RI/FS (or RFI/CMS & RI/FS) Process for All Non-Tank Farm Operable Units Except for Canyon/Associated Past Practice Waste Site Operable Units Covered in M-85-00**		
M-015-82B	08/01/11	Initiate 200-BP-5 Aquifer Tests Within 6 months of TTP Approval	On Schedule
M-015-66-T01	09/21/11	Submit RI/FS Report and PP for 100-KR-1/2/4 OUs for GW and Soil	On Schedule
M-015-70-T01	11/24/11	Submit FS Report and PP for 100-HR-1/2/3 and 100-DR-1/2 OUs	On Schedule *
M-015-68-T01	11/30/11	Submit RI/FS Report and PP for 100-BC-1/2/5 OUs for GW and Soil	On Schedule *
M-015-64-T01	12/17/11	Submit RI/FS Report and PP for 100-FR-1/2/3 and 100-IU-2/6	On Schedule *
M-015-72-T01	12/31/11	Submit RI/FS Report and PP for 300-FF-2/5 OUs for GW and Soil	On Schedule *
M-015-90	12/31/11	Submit Revised RFI/CMS and RI/FS Work Plan for 200-IS-1 to Ecology	On Schedule *
M-015-91A	12/31/11	Submit RI/FS Work Plan for the 200-WA-1 OU (200 West Inner Area) to EPA	On Schedule *
M-015-93A	12/31/11	Submit Revised RFI/CMS and RI/FS Work Plan for 200-SW-2 to Ecology	On Schedule *
M-015-38B	04/30/12	Submit a Revised FS Report & Revised PP(s) for 200-CW-1, 200-CW-3, and 200-OA-1 OUs for Waste Sites in the Outer Area of the CP to EPA	On Schedule *
M-015-110D	06/30/12	Submit Tc-99 Pilot Scale Treatability Study Test Report as an element of RI for 200-WA-1 to EPA	On Schedule *
M-015-62-T01	09/17/12	Submit FS/PP for 100-NR-1/2 OUs Including GW and Soil	On Schedule *
M-015-110A	09/30/12	Submit RFI/CMS & RI/FS Work Plan for 200-DV-1 OU to Ecology. The Work Plan shall include technology screening that identified technologies applicable for characterization, treatment, and monitoring of deep vadose zone contaminants.	One Schedule *
M-015-00D	12/31/12	Submit PP for all 100 & 300 Area OUs to Complete RI/FS Process	On Schedule *
M-015-21A	12/31/12	Submit 200-BP-5 and 200-PO-1 OU FS Report and PP(s) to Ecology	On Schedule *
M-015-92A	12/31/12	Submit RFI/CMS and RI/FS Work Plan for the 200-EA-1 OU (200 East Inner Area) to Ecology	On Schedule *

Milestone Status

TPA Number	Commitment Date	Milestone Title	Status
M-015-00 –	**Complete RI/FS (or RFI/CMS & RI/FS) Process for All Non-Tank Farm Operable Units Except for Canyon/Associated Past Practice Waste Site Operable Units Covered in M-85-00 (cont.)**		
M-015-91B	06/30/13	Submit FS Report and PP for 200-WA-1 OU (200 West Inner Area) to EPA	On Schedule *
M-015-92B	06/30/14	Submit CMS & FS Report(s) & Proposed CA Decision(s)/PP(s) for 200-EA-1 & 200-IS-1 OUs (CP 200 East Inner Area) to Ecology	On Schedule *
M-015-110B	09/30/15	Submit CMS & FS & PP/Proposed CA Decision for 200-DV-1 OU to Ecology	On Schedule *
M-015-93B	12/31/16	Submit RFI/CMS & RI/FS & Proposed CA Decision/PP for 200-SW-2 to Ecology	On Schedule *
M-016-00 – Complete Remedial Actions for all Non-Tank Farm and Non-Canyon Operable Units			
M-016-111C	12/31/11	Expand P&T System at 100-HR-3 OU to 800 gpm Capacity	On Schedule
M-016-120	12/31/11	GW Treatment System <50 gpm for Tc-99 Plume at S/SX Tank Farm	On Schedule
M-016-122	12/31/11	Begin Phase 1 Operation of 200W Pump and Treat System	On Schedule
M-016-110-T01	12/31/12	Take Actions to Contain or Remediate Hexavalent Cr 100A GW Plumes	On Schedule *
M-016-110-T05	12/31/15	Implement System to Meet Drinking Water Standards for U at 300-FF-5 OU	On Schedule *
M-016-110-T03	12/31/16	Take Actions to Contain Sr-90 GW Plume at 100-NR-2 OU	On Schedule *
M-016-110-T04	12/31/16	Implement Remedial Actions in all 100A RODS for GW OUs	On Schedule *
M-016-200A / RL-40	09/30/17	Complete U Plant Canyon (221-U) Demolition in accordance w/ RD/RAWP	On Schedule *
M-016-110-T02	12/31/20	Take Actions Such That Hexavalent Cr Meets Drinking Water Standards.	On Schedule *
M-016-119-T01	12/31/20	Remedy in Place to Contain GW Plumes in 200 NPL Area	On Schedule
M-016-200B/ RL-40	09/30/21	Complete U Plant Canyon (221-U) Barrier Construction in accordance w/ the RD/RAWP	On Schedule *

Milestone Status

TPA Number	Commitment Date	Milestone Title	Status
M-024-00 – Complete Well Installations with RCRA/CERCLA Requirements			
M-024-58E	06/01/12	Initiate Discussions of Well Commitments	On Schedule *
M-024-63-T01	08/01/12	Conclude Discussions of Well Commitments	On Schedule *
M-024-63	12/31/12	DOE Shall Complete Construction of all Wells Listed	On Schedule
M-024-58F	06/01/13	Initiate Discussions of Well Commitments	On Schedule *
M-024-64-T01	08/01/13	Conclude Discussions of Well Commitments	On Schedule *
M-024-64	12/31/13	DOE Shall Complete Construction of all Wells Listed	On Schedule *
M-024-58G	06/01/14	Initiate Discussions of Well Commitments	On Schedule *
M-024-65-T01	08/01/14	Conclude Discussions of Well Commitments	On Schedule *
M-024-65	12/31/14	DOE Shall Complete Construction of all Wells Listed	On Schedule *
M-037 – RCRA Closures			
M-037-03	04/30/2012	Submit Revised Closure Plans to support TSD closure for two (2) TSD Units: 216-B-3 Main Pond system, and 216-S-10 Pond and Ditch.	On Schedule *
M-037-02	06/30/2014	Submit Revised Closure Plans to support TSD closure for five (5) TSD Units: 207-A South Retention Basin, 216-A-29 Ditch, 216-A-36B Crib, 216-A-37-1 Crib, and 216-B-63 Trench.	On Schedule *
M-037-11	09/30/2016	Complete unit-specific closure requirements for two (2) TSD Units: 216-B-3 Main Pond system and 216-S-10 Pond and Ditch.	On Schedule *
M-037-10	09/30/2020	Complete Unit-Specific Closure Requirements According To The Closure Plan(s) For seven (7) TSD Units: 207-A South Retention Basin, 216-A-29 Ditch, 216-A-36B Crib, 216-A-37-1 Crib, 216-B- 63 Trench, Hexone Storage and Treatment Facility (276-S-141/142), and 241-CX Tank System (241-CX-70/71/72).	On Schedule *

Milestone Status

TPA Number	Commitment Date	Milestone Title	Status
M-085-00 RL 40 – Complete Response Actions for the Canyon Facilities/Associated Past Practice Waste Sites, other Tier 1 CP Facilities not covered by existing milestones, and Tier 2 CP Facilities			
M-085-10A RL 30	12/31/11	Submit RI/FS Work Plan for 200-CB-1 (B Plant Canyon/associated past practice waste site) to Ecology	On Schedule *
M-085-01 RL 40	09/30/12	Submit Change Package to establish date for major Milestone M-85-00	On Schedule *
M-085-20A RL 30	09/30/15	Submit RI/FS Work Plan for 200-CP-1 (PUREX Canyon/associated past practice waste site) to Ecology	On Schedule *
M-085-50 RL 40	12/31/15	Submit Revised RAWP for the 224-B Concentration Facility in accordance with the Action Memo for the Non-Time Critical Removal Action for the 224-B Plutonium Concentration Facility (DOE/RL-2004-36). A change package with a completion milestone will accompany the submittal of the work plan.	On Schedule *
M-085-30A RL 30	12/31/17	Submit RI/FS Work Plan for 200-CR-1 (REDOX Canyon/associated past practice waste site) to EPA	On Schedule *
M-085-60 RL 40	03/31/18	Complete EE/CA Report(s) for all Tier 2 Facilities listed in Appendix J	On Schedule *
M-085-51 RL 40	12/31/25	Submit RAWP for the 224T TRUSAF in accordance with the Action Memo for the Non-Time Critical Removal Action for the 224-T Plutonium Concentration Facility (DOE/RL-2004-68). A change package with a completion milestone will accompany the submittal of the work plan.	On Schedule

**Potentially effected by FY2012 Budget impacts. Meeting scheduled for July 28, 2011 with regulatory agencies.*

Accomplishments – 3rd Quarter

Pump and Treat Operations

- Treated 160.8 million gallons on the River Corridor
- Treated 48.8 million gallons on the Central Plateau

Sampling

- 2,853 samples collected from 643 well locations
- 167 aquifer tube samples collected from 68 aquifer tubes

Drilling and Decommissioning

- 7 groundwater wells installed in the 3rd quarter; 392 contract to date
- 67 wells decommissioned in the 3rd quarter; 269 contract to date

Outer Zone

- 126,544 tons of soil removed
- 3 waste sites complete

100K Waste Sites

- 43,936 tons of soil removed

Significant Accomplishments

200 West Area Groundwater Treatment Facility

- All the major process government furnished equipment has been placed in the six buildings.
- Construction is 82% complete.

Aerial view of the 200W Groundwater Treatment Facility Biological and Radiological Process Buildings

Significant Accomplishments

100-BC-5

- All 100-BC RI/FS field work scope is completed.

100-NR-2

- The high-river stage performance monitoring at the existing apatite Permeable Reactive Barrier was completed.

100-HR-3

- The HR-3 system was removed from service to transfer extraction wells to the new HX system.
- DR-5 wells were realigned to the DX system, and are now operational.

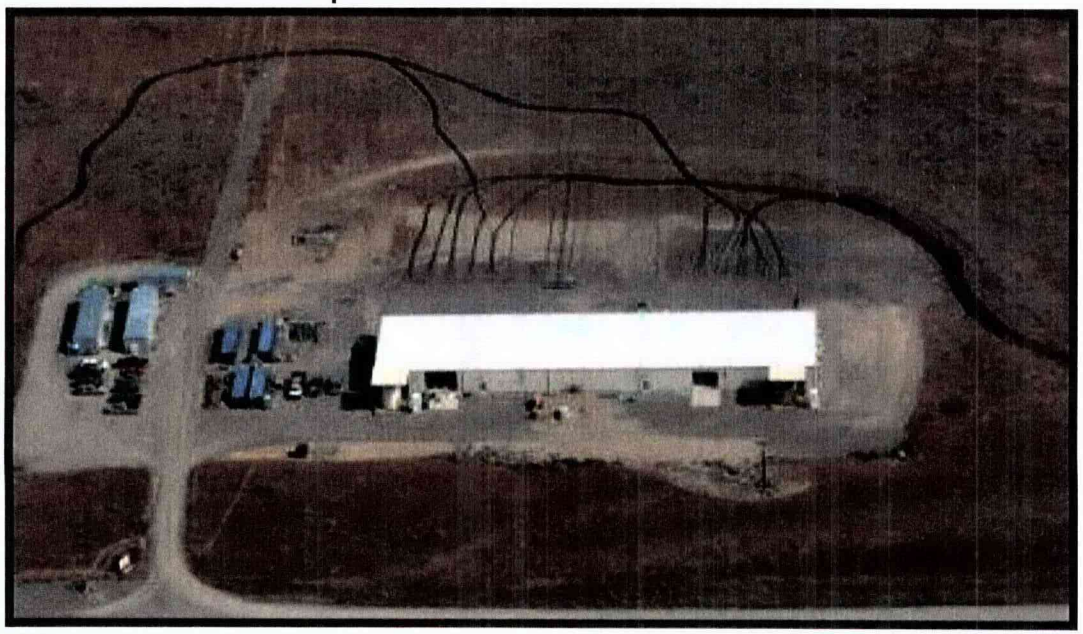
100-FR-3

- All RI/FS field work is complete

Significant Accomplishments

100-HX Groundwater Treatment Facility

- All tanks (2 influent, 1 effluent, and 2 chemical storage tanks) have been set. All process pumps have been set and anchored. All 27 road crossings have been completed.
- All ten Construction Acceptance Test (CAT) procedures have been approved and CAT testing is underway with flushing of the HDPE lines and electrical checks of installed components.



Ariel view of the HX Groundwater Treatment Facility taken in June 2011

Significant Accomplishments

200-BP-5

- Completed the final design package for the 200-BP-5 Treatability Test extraction system.
- Installation of the water leveling monitoring system in existing wells was completed and the baseline water level monitoring is initiated in support of the 200-BP-5 Treatability Test.

200-UP-1

- The installation of water level transducers in 8 existing wells for the purpose of monitoring SSX P&T performance was completed and baseline monitoring was initiated.

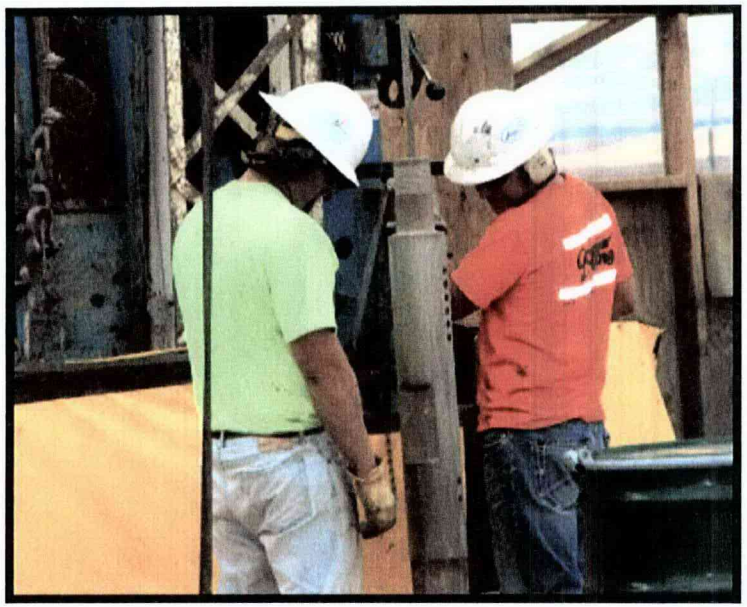
Deep Vadose Zone

- The Desiccation Test was completed on June 30, 2011.

200-PW-1 Soil Vapor Extraction System

- The soil vapor extraction unit is currently operating at full capacity at both extraction units (Z9 and Z1A). Extraction rates from the site are commensurate with rates achieve during FY 2010. Additional wells have been connected and are undergoing extraction at the Z9 site in preparation for treatability testing scheduled to begin in Mid-August of this year.

Significant Accomplishments



A drilling rig in operation in the 100-NR-2 operable unit.

Adjusting soil gas extraction at the Soil Desiccation Pilot Test.

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Significant Accomplishments

200-MG-1

- The following sites have been completed: 200-E-110, 600-36, 600-37, 600-38, 600-51, 600-65, 600-222, 600-262, 600-275, UPR-600-21, 600-226,600-282, 600-40, 600-220, 200-W-33.

U Plant Canyon

- The Management Assessment for grouting the remainder of 221-U Canyon was completed on May 31, 2011. Grouting activities have commenced in cells. Other grout and demolition preparation activities are ongoing in the 221-U Canyon Facility.

200-CW-3

- The following sites have been completed: 216-N-1, 4, 216-N-4, 216-N-6, 600-286-PL, and 600-287-PL. WIDS Reclassification Forms for 216-N-1, 216-N-4 and 216-N-6, were signed on June 3, 2011.

Significant Accomplishments

200-BC-Control Area (BCCA)

- BCCA North Zone A (~140 Acres)
  - The ~140 acres have been remediated and field excavation is complete.
  - The stockpile excavation work is complete. The stockpile excavation work was completed July 18, 2011.
  - A cumulative total of ~483,000 tons has been disposed of at ERDF (from Zone A and stockpile excavation).

Railcars Disposition

- Cask cars and the flat car have been shipped to ERDF. The two locomotives have been emplaced at B Reactor.

200-CW-5

- The final CW-5 (Revision 0) was approved by DOE and EPA on May 16, 2011.

FY2011 Progress

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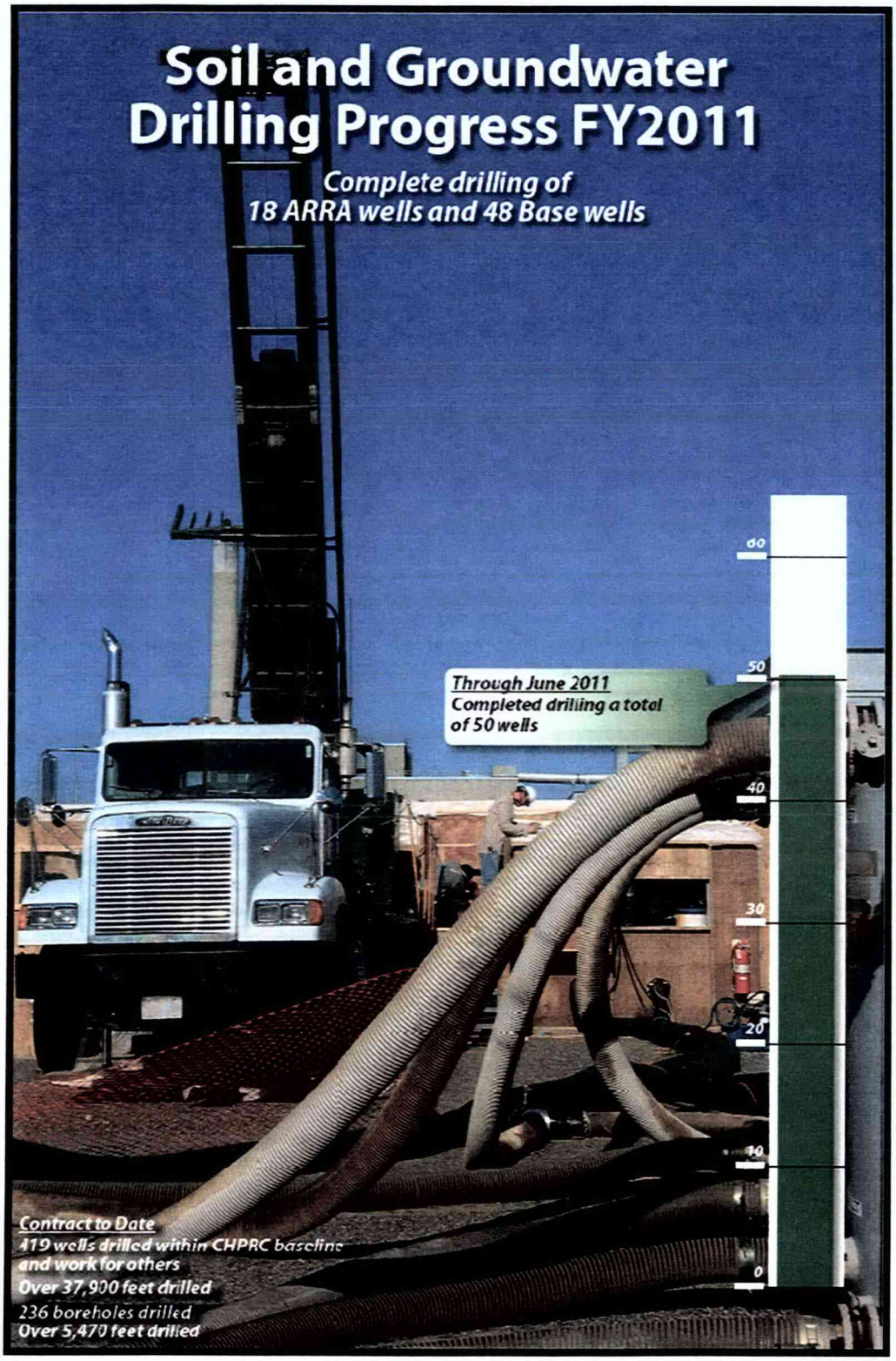
FY2011 Progress



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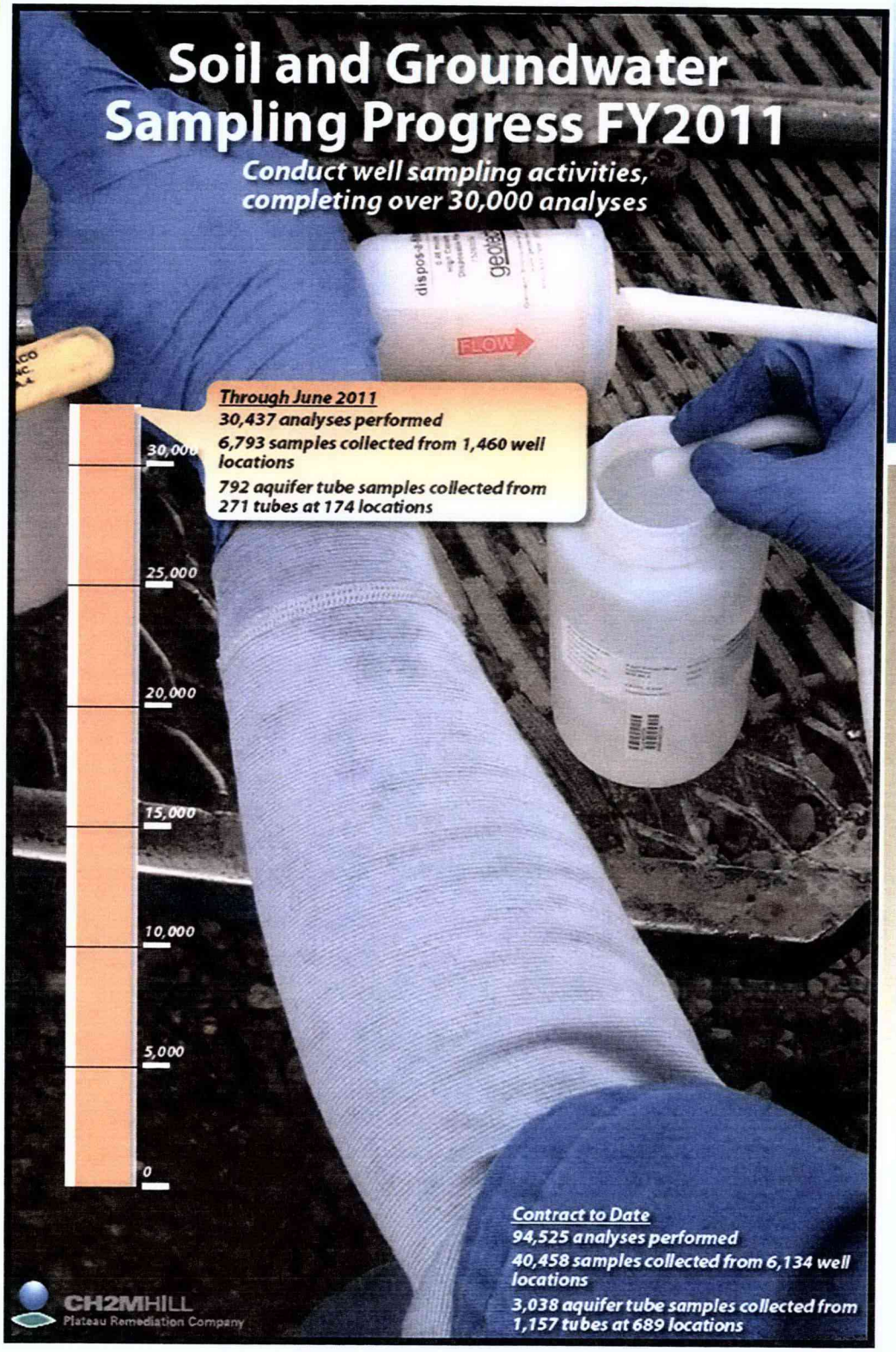
FY2011 Progress



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FY2011 Progress

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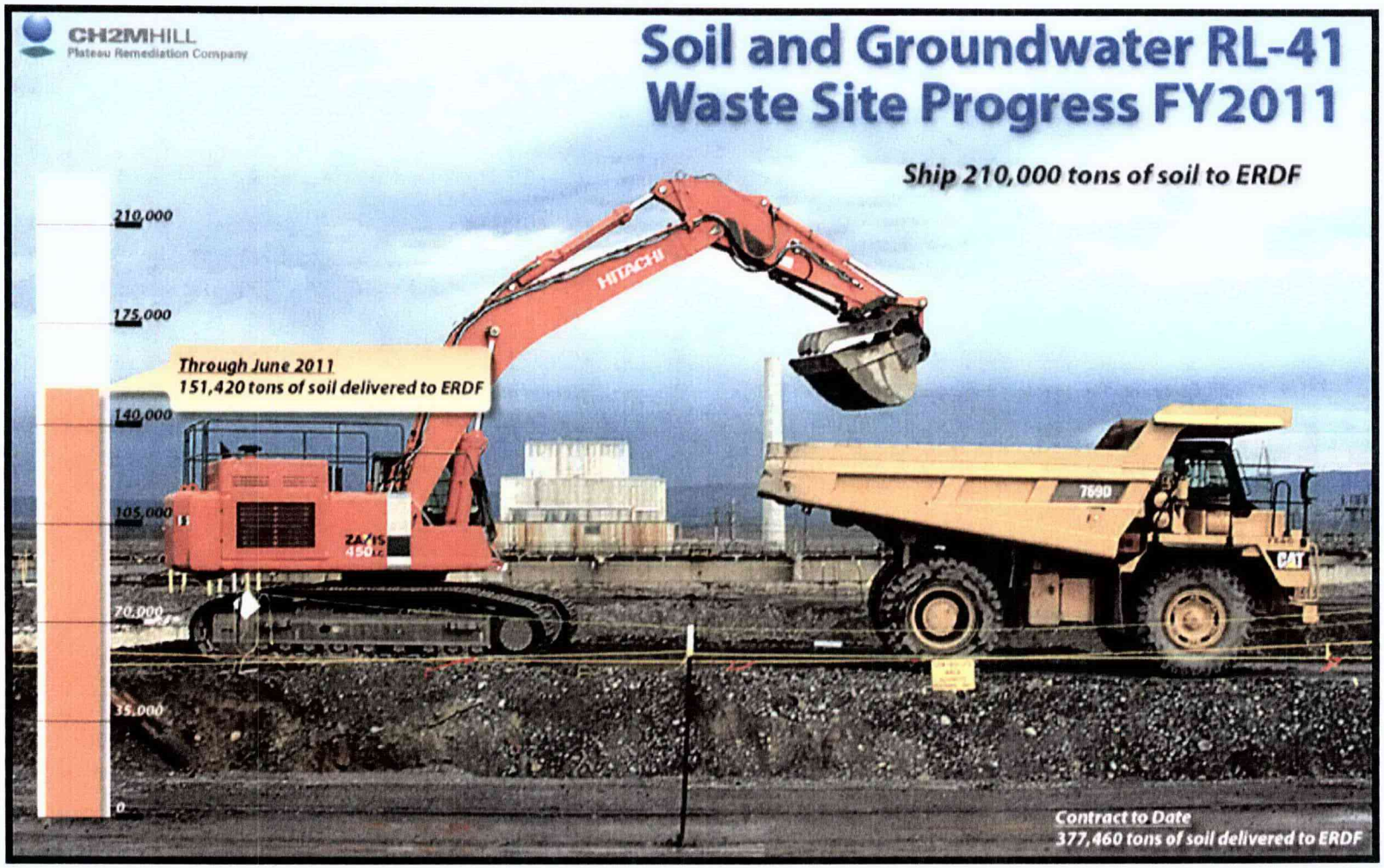
FY2011 Progress



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Project Baseline Performance

Contract to-date

WBS 030/ RL-0030 Soil and Groundwater Remediation	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance ($)	Schedule Variance (%)	Cost Variance ($)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Variance at Completion (VAC)
ARRA RL-0030.R1.1 GW Capital Asset	148.4	154.0	158.0	5.5	3.7	(4.0)	-2.6	175.0	175.0	0.0
ARRA RI-0030.R1.2 GW Operations	78.2	78.8	75.0	0.7	0.9	3.8	4.9	92.1	89.3	2.8
ARRA Total	**226.6**	**232.8**	**233.0**	**6.2**	**2.7**	**(0.2)**	**-0.1**	**267.1**	**264.3**	**2.8**
Base	375.2	374.0	378.0	(1.2)	-0.3	(4.0)	-1.1	1,284.0	1,224.4	59.7
Total	**601.8**	**606.8**	**611.0**	**5.0**	**0.8**	**(4.2)**	**-0.7**	**1,551.1**	**1,488.7**	**62.5**

Numbers are rounded to the nearest $0.1M.

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Project Baseline Performance

Contract to-date

ARRA

CTD Schedule Performance: (+$6.2M/+2.7%)

Major variances are discussed below.

ARRA RL-0030.R1.1 GW Capital Asset (+$5.5M)

200-ZP-1 Operable Unit (+$5.5M)

200W P&T positive schedule variance is the result of managing the primary contractor to an accelerated completion date.

ARRA RL-0030.R1.2 GW Operations (+$0.7M)

200-ZP-1 Operable Unit (+$0.7M)

200W P&T CM positive SV is due to early completion of business information modeling and early start on installation of heat trace

CTD ARRA Cost Performance: (-$0.2M/-0.1%)

The primary contributors to the ARRA CTD cost variance that exceed the reporting thresholds are:
Major variances are discussed below.

ARRA RL-0030.R1.1 GW Capital Asset (-$4.0M)

200-ZP-1 Operable Unit (-$2.9M)

200W P&T construction negative CTD CV is due to modifications in design of Long Lead Equipment (LLE) procurements, project support resources being utilized above planned levels and pending cost transfers to R1.2 subproject associated with BCR-R30-11-003R0.

100 HR-3 Operable Unit (-$0.8M)

The negative cost variance for 100DX is the result of increased installation costs on the pH adjustment system, the impacts of weather on completing construction punch-list items, and the Acceptance Test Plan for the facility/process.

Project Baseline Performance

Contract to-date

ARRA RL-0030.R1.2 GW Operations (+$3.8M)

Drilling (+$2.4M)

The positive cost variance is due to efficiencies and savings obtained in drilling for 100-NR-2 and 200-BP-5 wells. Cost efficiencies have been obtained through an aggressive drilling schedule with savings in support personnel and faster drilling methods. Well decommissioning's have also been completed for less than planned.

Regulatory Decision and Closure Integration (+$1.7M)

The positive cost variance is primarily due to completing work scope more efficiently than planned, primarily in the areas of multi-incremental sampling (using existing documentation and direct haul rather than staging), and borehole drilling and landfill characterization (competitive subcontracting of drilling support and efficient field support).

Ramp-up and Transition (-$2.0M)

The negative cost variance was driven by increased engineering, project support, procurement, site development and the installation of the ARRA Mobile Offices and an increase in the Project Services Distribution to RL-30.

Project Baseline Performance

Contract to-date

Base

CTD Schedule Performance (-$1.2M/-0.3%)

The primary contributors to the Base CTD schedule variance that exceed the reporting thresholds are:

Drilling (-$1.2M)

Primary contributor to the CTD schedule variance is ZP-1 well drilling activities due to a broken 16" casing, shipment delays in receiving the under reamer tool for the 12" casing, and nesting of a protected bird species in the mast of one of the rigs. It is anticipated that some of the ZP-1 drilling will slip into FY2012.

100 HR-3 Operable Unit (+$2.6M)

HX construction activities for Procure/Install Equipment, Distribution of Electricity and Piping, and Transfer Building Construction have been performed ahead of schedule to support the completion of construction activities and acceptance testing by September 2011. The project is currently forecast to complete ahead of baseline schedule.

CTD Cost Performance (-$4.0M/-1.1%)

Primary contributors to the CTD negative cost variance that exceed the reporting thresholds are as follows:

Integration & Assessments (+$3.3M)

Primary drivers for this positive cost variance are as follows:

Less subcontractor support required for Central Plateau strategy development and integration

Sample Management and Reporting has performed work scope more efficiently than planned

Less cleanup document reviews were required than originally planned, requiring less contract support. Also efficiencies/savings were realized in establishing document templates, reviewing procedures, and software procurements.

100-KR-4 OU (-$2.2M)

The unfavorable cost variance has resulted from increased analytical cost and use of additional resources to expedite the remedial investigation sampling and the accompanying RI/FS report efforts. Additional risk assessment and modeling costs have been included in the forecast. The negative cost variance will continue through preparation of

Project Baseline Performance

Contract to-date

Base

CTD Cost Performance (-$4.0M/-1.1%)

Draft A of the RI/FS report.

100-NR-2 OU (+$1.7M)

Chemical treatment and maintenance scope, jet grouting pilot test work, RI/FS Work Plan and Interim Proposed Plan Reporting were performed more efficiently than planned leading to the positive cost variance.

100 HR-3 Operable Unit (-$2.5M)

Primary contributors to the negative cost variance are as follows:

100 DX - extensive effort required to design the pH adjustment system, cost overruns in completing the OU Remedial Process Optimization studies.

100 DX unplanned modifications on the system after completion of construction and higher than expected cost to complete acceptance test plan and the operational test plan

Cost of realigning wells from DR-5 to 100 DX

100 HX Construction cable cost increased due to increases in copper prices

Additional time and resources being spent on internal CERCLA (RI/FS) document development that will be recovered in completed Draft A document

Project Baseline Performance

Contract to-date

Base

CTD Cost Performance (-$4.0M/-1.1%)

200-ZP-1 Operable Unit (+$3.3M)

Major contributors to the variance are as follows:

Interim Operations reflects significant progress and cost underruns achieved to date for System Calibration

Design of the permanent hookup of well EW-1 was lower than planned as only minor changes were needed to an existing design

Cost for performing general operating and maintenance and minor modification activities have been lower than planned as the system has been running smoothly

Cost for collecting depth-discrete groundwater and soil samples during the installation of new wells was less than planned

200W Pump-and-Treat Remedial Design/Remedial Action work plan and preliminary design activities were completed with fewer resources than planned

200 PW-1 OU (+$0.8M)

Labor and subcontract cost for general operations and minor modifications support is less than planned. In addition, efficiencies and savings experienced with the Soil Vapor Extraction (SVE) system testing prior to March 2010 as well as the removal of two old SVE units.

Usage Based Services (-$1.6M)

Increased cost associated with training due to the additional ARRA work in FY2010 and fleet services costs that occurred in FY2009 and FY2010. Overruns will continue to be funds-managed within the S&GRP project.

Project Baseline Performance

Contract to-date

WBS 040/ RL-0040 Nuclear Facility D&D	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance ($)	Schedule Variance (%)	Cost Variance ($)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Variance at Completion (VAC)
U Plant/Other	176.9	171.5	162.7	(5.4)	-3.1	8.8	5.1	200.0	187.6	12.4
Outer Zone	82.5	78.5	67.3	(4.0)	-4.8	11.3	14.4	96.6	86.3	10.4
ARRA Total	**259.4**	**250.0**	**230.0**	**(9.4)**	**-3.6**	**20.1**	**8.0**	**296.6**	**273.9**	**22.8**
Base	62.1	62.3	55.5	0.2	0.4	6.8	10.9	759.5	743.7	16.8
Total	**321.5**	**312.3**	**285.5**	**(9.2)**	**-2.9**	**26.9**	**8.6**	**1,056.1**	**1,016.6**	**39.6**

Numbers are rounded to the nearest $0.1M.

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Project Baseline Performance

Contract to-date

ARRA

CTD Schedule Performance: (-$9.4M/-3.6%)

ARRA RL-0040.R1.1 U Plant/Other D&D (-$5.4M) The negative schedule variance is due to late award of the grout contract for U Canyon (-$2.8M), delays with the hazard reduction of 209E (-$0.6M), and delays with the 200E Administration Buildings (-$0.4M) due to bio-hazard and radiological control issues. Limited resources has also delayed 200W Administration Buildings (-$1.5M). Also minor accounts outside the threshold (-$0.1M).

ARRA RL-0040.RI.2 Outer Zone D&D (-$4.0M) The unfavorable schedule variance is primarily due to the waste sites in ARRA that need to be moved to base to support the priority of footprint reduction (-$3.3M), delays with cultural/ecological reviews on the North Slope (-$0.6M), disposition of the 212N Railcars (-$0.2M), and minor accounts outside the threshold (+$0.1M).

CTD Cost Performance: (+$20.1M/+8.0%)

ARRA RL-0040.R1.1 U Plant/Other D&D (+$8.8M) The favorable cost variance is largely due to favorable performance of the Cold and Dark teams and the Sampling and Characterization/Waste Identification Form teams (D4) (+$3.7M), overhead allocations (+$10.8M), less for Program Management than planned (+$1.6M), less resources than planned for C-3 Sampling (+$0.7M), lower than planned costs for capital equipment (D4) (+$2.7M), less asbestos abatement required for 200W buildings (+$3.3M), offset by increased material and equipment costs, increased use of masks and respirators due to the unexpected asbestos levels in the ancillary buildings in U Ancillary (D4) (-$8.0M), coupled with increased insulator staff and overtime to recover schedule, and 200E Administration (-$1.2M) and 209E Project delays -$2.2M), additional resources being applied at U Canyon (D4) to regain schedule (-$1.0M), Usage Based Services (-$2.7M), and minor accounts not within threshold (+$1.1M).

ARRA RL-0040.RI.2 Outer Zone D&D (+$11.3M) The favorable cost variance is due to efficiencies in Arid Lands Ecology (ALE), North Slope Facilities, disposition of railcars D&D (+$5.9M), and Outer Area waste sites (+$6.3M). The waste site favorable cost-to-date variance is primarily due to an O-Zone Remote, Treat, and Dispose (RTD) Waste Sites adjustment (pass back) to ERDF waste disposal costs reflecting the operational efficiencies of the super dump trucks. Within the waste sites area, this favorable cost variance is partially offset by higher than planned costs associated with remediation of pipelines. A negative cost variance is associated with increased costs for the 212N/P/R Project (-$1.1M) due to the walls of the basins being much thicker than estimated. Minor accounts outside the threshold (+$3).

Project Baseline Performance

Contract to-date

Base

CTD Schedule Performance: (+0.2M/0.4%)

All Variances are within Thresholds.

CTD Cost Performance: (+6.8M/+10.9%)

Balance of Site (facilities and others) (+$6.8M) The favorable cost variance is associated with recognized efficiencies for demolition of the Industrial 7 Project (D4) (+$0.6M) as a result of utilization of existing site equipment and materials, surveillance and maintenance costs (D4) less than expected (+$1.3M), completion of the sampling of Cell 30 with less resources than planned (+$0.9M), Program Management utilizing less resources (+$1.6M), capital equipment (+$0.3M), Usage Base Services (+$0.2M), and under run in overhead allocations (+$1.9M).

Planned Activities

Next 6 months

100-HR-3

- Complete the HX pump and treat system (expected in September 2011). This will bring the total HR-3 treatment capacity to 1400 gpm.
- Complete the fieldwork for the RI/FS at HR-3 OU, and complete the decisional draft of the RI/FS report.

200-UP-1

- Continue construction of the interim S-SX Extraction System for the Tc-99 plume thru Fiscal Year.

200-ZP-1 / 200-PW-1 SVE

- Complete construction of the new 200 West Area GW Treatment Facility.
- Continue ZP-1 interim P+T operations and PW-1 SVE operations.
- Complete simulator-based training program and begin training NCOs on new treatment facility.

200-IS-1

- Complete regulatory workshops as agreed in recent TPA change notice.

Planned Activities

Next 6 months

200-PW-1/3/6 and 200-CW-5

- Hold four Public Meetings for the combined 200-CW-5 and 200-PW-1/3/6 PP.

BCCA Zone A Complete

- Disposition stockpiled soil to ERDF.
- CERCLA post-soil removal verification survey measurements.

Outer Zone Complete

- Complete 13 additional waste sites.

TSD Closure Plan – Hexone Storage and Treatment Facility

- Resolve Ecology comments on the Plan.