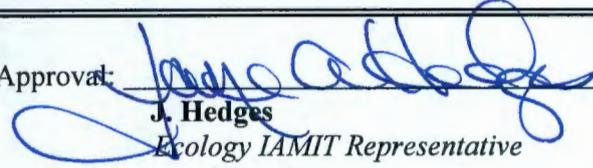
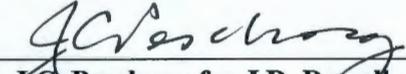


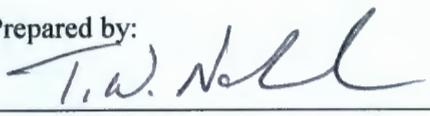
0100089

**River Corridor/Central Plateau
Tri-Party Agreement Milestone Review
Meeting Minutes
October 20, 2011**

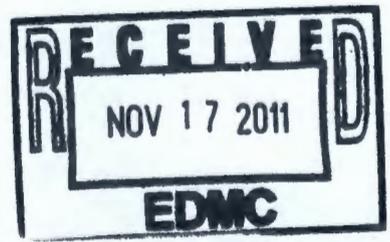
Approval:  Date: 11/17/11
J. Hedges
Ecology IAMIT Representative

Approval:  Date: 11-17-11
J.C. Peschong for J.D. Dowell
DOE IAMIT Representative

Approval:  Date: 17 Nov 11
D.A. Faulk
EPA IAMIT Representative

Minutes Prepared by:  Date: 11/17/11
T.W. Noland
Mission Support Alliance, LLC

- Balone, S.N.* RL
- Blackburn, J.E.* WCH
- Bland, N.M.* RL
- Bloom, R.W.* CHPRC
- Bohnee, G. NPT
- Bond, F.W.* Ecology
- Brown, M.J.* Ecology
- Call, P.K. RL
- Cameron, C.E.* EPA
- Charboneau, B.L.* RL
- Cimon, S.* ODE
- Collins, M.S.* RL
- Cline, M.W.* RL
- Cox, W.G.* CHPRC
- Dittmer, L.M.* CHPRC
- Dowell, J.D. RL
- Farabee, O.A.* 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
- Holtz, R.A. RL
- Jim, R. Yakama
- Johnson, W.F.* WCH
- Kaldor, R.A.* MSA
- Killooy, S.E. WRPS



- Knox, K.E. KCR
- Lobos, R.A. EPA
- Lynch, J.J.* ORP
- Mattlin, E.M.* RL
- Menard, N.M.* Ecology
- Moser, K.R.* MSA
- Niles, K. OOE
- Noland, T.W.* MSA
- Ortiz, S.M.* RL
- Peschong, J.C.* RL
- Piippo, R.E.* MSA
- Price, J.B.* Ecology
- Quintero, R.A.* RL
- Russell, R.W. ORP
- Shoemaker, J.* CHPRC
- Singleton, D.G.* Ecology
- Skinnarland, E.R. Ecology
- Teimouri, A.E. HQ
- Teynor, T.K. RL
- Vanni, J. Yakama
- Watson, D.J. CHPRC
- Whalen, C.* Ecology
- Yasek, D.M.* WCH
- Administrative Record
- *Attendees

**River Corridor/Central Plateau
Tri-Party Agreement Milestone Review
Meeting Minutes
October 20, 2011**

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

Quarterly Summary July - September 2011 - DOE-RL stated that there are two Change Control Forms pending Ecology approval to remove a few waste sites from the 100-D and 100-H interim action milestones. A number of waste sites that were included in DOE-RL's 90-day notification letter to Ecology have been closed out. Ecology stated that at this time there are four waste sites that will be moved out of the milestones, and there are a couple more waste sites that are on the cusp of being removed pending issue resolution. Ecology added that the current path forward is for Ecology to reject the two Change Control Forms, which will trigger DOE-RL to submit modified Change Control Forms based on the waste sites that have already been completed. Ecology will be sending DOE-RL a letter by early next week denying the change Change Control Form and explaining the rejection.

Milestone Status:

M-89-00 - DOE-RL reported that the sample results from the soil under the 324 B-Cell were received at the end of September 2011. WCH is evaluating the results, and then a recommended technical approach for removing the soil will be provided. It is still believed that the contamination has not migrated very far in the soil. The data indicates the higher concentrations of contamination are much closer to the bottom of the slab in B-Cell than previously thought.

Significant Accomplishments - For Last 3 Months:

M-16 - Remedial Action/Risk Assessment - DOE-RL reported on the remediation of the deep chromium sites at 100-D Area. 100-D-100 is at the center of the highest concentration area, and significant chrome was found at 35 feet. DOE-RL indicated that remediation will likely go to the groundwater at 100-D-100 and possibly one other site. DOE-RL stated that over the last quarter nine more pieces of spent nuclear fuel (SNF) were found in the 118-K-1 burial ground. All of the materials are out of the trench. Ecology suggested that the handout specify found spent nuclear fuel, rather than found fuel. EPA stated that it is not planning to do a formal review and comment on the ecological risk assessment report; however, a review will be done of the ecological chapter of the 100-K remedial investigation feasibility study (RI/FS), and EPA comments will be provided on the ecological report via the RI/FS document. DOE-RL noted that 2011 was a record year for disposal at ERDF, with about 2.2 million tons of waste being disposed. There were about 1.6 million tons disposed at ERDF in 2010. The majority of the increase was due to American Recovery and Reinvestment Act (ARRA) funding. Next year is estimated to be quite a bit lower as more of the work is completed in the River Corridor.

Significant Actions Planned - For Next Six Months:

M-16 - Remedial Action/Risk Assessment - DOE-RL noted that there have been impacts from the recent work force restructuring and layoffs. Most of the impacts are in the D4 area. DOE-RL stated that it has been working closely with Energy Northwest to provide information needed for Energy Northwest's license amendment submittal to the Nuclear Regulatory Commission (NRC) to allow remediation of the 618-11 burial ground trenches. The license amendment is expected to be submitted to the NRC in the January-February 2012 time frame, and it will take about a year to get approval. The earliest start time for remediation in 618-11 would be in June 2013.

ERDF - DOE-RL stated that about 16,000 tons have been treated so far of the chromium waste that's been removed from 100-C-7. The waste is being treated in accordance with land disposal restrictions (LDR). It is anticipated that 40,000 to 50,000 tons will require treatment. WCH received approval from EPA to use a new formulation for treatment of the chrome that uses less ferrous sulfide, and the cost was reduced by about 50 percent.

Performance Summary - DOE-RL reported that all four of the ARRA projects were completed with significant cost savings, and that money has been rolled over into funding ERDF operations, as well as continuing remediation at 618-10, into 2012. ARRA funding at ERDF will run out at the end of the first quarter of FY12. The 618-10 work under ARRA will continue until about March 2012, and then the money will roll over into the baseline funding, which will help free up base money for other work.

Issues - DOE-RL noted that the four issues were discussed during the presentation. Ecology asked if the issue of craft layoffs could impact milestone completion, and expressed some concern about layoffs being a justification for missing a milestone. DOE-RL responded that there will be some impacts, but the issue was not noted as a justification but as an awareness of the current situation.

EPA inquired about the use of a batch equilibrium test to support closure that was associated with the last issue. Ecology stated that the 126-H-2 waste site is the concrete clear wells, and Ecology is working with DOE-RL and CHPRC to clarify the Model Toxics Control Act (MTCA) regulations. Ecology noted that MTCA regulations state that a batch equilibrium test can be used and then new Kd's can be calculated, or a toxicity characteristic leaching procedure (TCLP) test could be used and then compared directly to the regulations. The contractor used the TCLP and then developed new Kd's. Ecology is in the process of working the issue and has suggested other batch equilibrium tests that could be used. EPA noted that it should be included in any work that involves defining Kd's for chromium. CHPRC is scheduling a meeting with Ecology next week for discussion on the issue, and EPA will be included.

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

Accomplishments:

Completed TPA Milestones - DOE-RL noted that the K West Basin knockout pot (KOP) material pretreatment was completed, meeting TPA milestone M-016-170. The next stage is to remove the KOP material from the K West Basin (M-016-172), which is due for completion by the end of September 2012.

D4 - The D4 activities have been completed in all of the facilities under M-016-153, which is due at the end of December 2012. Work is ongoing in some of the waste sites for that milestone.

KOP Sludge Processing - In preparation for KOP sludge processing, a qualification test of a full scale integrated system has been completed, which is the same system that will be used in the basin. The test was conducted at MASF in the 400 Area, and hands-on operator training was done on the equipment. The test demonstrated that the equipment works as designed, and a final design report for the processing system is being prepared.

STP Phase 1 - Demolition was completed to part of the annex area, which will allow construction of a new structure to the annex. The structure will house equipment that will transfer the sludge into storage containers.

STP Phase 2 - DOE-RL pointed out that on page ten of today's handout, the milestone number listed should read M-016-171 instead of 173. The technology evaluation and alternatives analysis for sludge treatment and packaging has been completed, which was the culmination of a two-year effort. The final report recommends warm water oxidation as the technical baseline for treatment of sludge, and the recommendation came with two potential enhancements. DOE-RL noted that the treatment for sludge is to oxidize uranium so it does not generate hydrogen gas. One potential enhancement to the warm water oxidation is to use a size-reduction technology (immersion milling) that reduces the size of the uranium particles. The smaller the particles of uranium, the less time it takes to do oxidation. The second enhancement calls for the use of a fenton reagent, which accelerates the time necessary to do oxidation.

Quarterly Milestone Summary - DOE-RL noted that all the milestones listed are on track.

Project Baseline Performance - DOE-RL reported that the cost and schedule index are at or near 1.0, which is the goal.

Planned Activities Next Six Months - DOE-RL reported that the final design report for the system to process the KOP material should be completed within two weeks. Work to procure the equipment is under way, and installation of the equipment is anticipated in the January to March 2012 time frame. Readiness activities and then startup of processing KOP material is anticipated in late spring or early summer 2012. EPA noted the 2015 milestone date to remove the sludge, and asked about the tentative date for removal in 2014. DOE-RL responded that the milestone is on track to meet the 2015 date, although about half of the nine months of float in schedule has

been lost due to the recent reduction in force. DOE-RL is working with its contractor to recover the lost float.

Lifecycle Report - M-36-01

DOE-RL provided an update on the Hanford Lifecycle Report, which was submitted to EPA and Ecology on July 25, 2011. The 2012 lifecycle report will be submitted by January 31, 2012. DOE-RL noted that there are six months between submittal of the 2011 and 2012 report, and there will not be much difference between the two reports. Comments on the 2011 report are requested by November 10, 2011 to be considered for the 2013 report. Ecology noted that under significant accomplishments the wording "consulted with Tribal Nations" should read "briefed Tribal Nations."

PFP Closure Project - TPA Milestone M-083

Quarterly Milestone Summary - DOE-RL reported that the milestones are on schedule. The surveillance and maintenance (S&M) plan, due by June 30, 2012, is anticipated for submittal within the next month.

Accomplishments - Of the 232 gloveboxes, 158 have been removed. Most of the 74 gloveboxes remaining are located in the RMA/RMC line, which will be the most difficult to remove.

Project Baseline Performance - DOE-RL reported on the unfavorable cost and schedule variances both in base and ARRA work. The main drivers are a three-week stop work due to loss of ventilation, the recent work force restructuring, and the failure of the canyon crane in the PRF facility. The work force restructuring resulted in reducing the teams from 19 to ten. The crane went down at the end of July 2011, and it is anticipated it will be operational by the end of October 2011.

Planned Activities Next 6 Months - DOE-RL reported on the transition from 19 to ten teams. The new teams will receive training in the next two to three months.

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

Actions Planned for the Next Six Months - DOE-RL stated that the work scope to address the approximately 50 inactive miscellaneous underground storage tanks (IMUSTs) that are not associated with a building may be delayed due to funding resources. DOE-RL stated that it is in the process of obtaining a review of all the IMUSTs that was done several years ago.

TPA Quarterly Milestone Review M-91 Series

Significant Accomplishments of the Last Three Months - DOE-RL stated that under milestone M-091-01A, work on the conceptual design to acquire treatment and processing capabilities for RCRA TRUM waste will be started in 2013. Ecology requested updates before work is started in 2013. Oregon DOE (ODOE) inquired about the status of shipping the remote-handled waste to

the Waste Isolation Pilot Plant (WIPP), noting that currently contact-handled waste is going in areas in WIPP where remote-handled waste should go. DOE-RL responded that the corporate board is meeting this week, and that issue is one of the topics for discussion. Under M-091-44, DOE-RL reported that Permafix Northwest has completed modifications to their facility and also received air permit modifications, RCRA modifications and permitting modifications that will allow the facility to receive higher gram-loaded waste. As a result, DOE-RL is able to send the waste directly to Permafix Northwest and eliminate multiple handling of waste on site.

Central Plateau Remediation Project - M-016-00, M-085-00

Accomplishments - The remaining five waste sites were completed in the outer Area. There was a total of 41 waste sites completed over the past two years under ARRA. The U Canyon grout fill was completed in two of the three galleries. The decision was made to not grout the third gallery, with concurrence from the regulators, and the gallery will be demolished when the canyon wall is taken down. The decision means that less amount of barrier material will be needed to place over the canyon. The remaining grout was placed in the 40 operating cells, and six-inch slurry was poured over the top of the operating floor to seal the cells. The other areas the grout was placed in was the vent tunnel going to the sand filter, the vent tunnel between the sand filter and the stack, and several pipe and sewer lines in the U Canyon. EPA asked how far the grout goes out in the piping and vent tunnel. DOE-RL responded that relative to the vent tunnel going to the sand filter, the grout went out 40 yards. Between the sand filter and the stack the grout went out ten yards. The grout also went out ten yards in the process sewer. All of the other pipes going out of the canyon were cut and capped on the inside of the building.

Project Baseline Performance - DOE-RL reported that the project is ahead of schedule and under budget.

Milestone Status - The TPA milestones are all on schedule.

Planned Activities Next 6 Months - DOE-RL noted that the disposition for 209E is planned by October 31, 2011; however, due to the recent layoffs there has been a significant slowdown and the 10/31/11 date is not 100 percent certain. The last six issues of the Hanford Review Board were just resolved, so administratively the demolition is cleared for the building as soon as the HEPA filters are taken out and spray coating is completed on the inside of the HVAC ducts to stabilize any contamination. DOE-RL stated that if there are carryover funds available, new waste sites that reside in zones 1, 2, 3 and 4 in the Outer Area will be placed in the MG-1 Engineering Evaluation and Cost Analysis (EE/CA) for remediation.

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

Significant Accomplishments:

Completed TPA Milestones - The 100-HR-3 system was expanded, completing M-016-111C. A

new pump and treat system was built at 100-H, and 100-HR-3 now has two new systems (DX and HX). The capacity has been expanded to 800 gpm and currently is pumping at 500 gpm. Ecology expressed appreciation for the team effort in completing the milestone.

Drilling and Decommissioning - All of the ARRA activities are nearing completion (by November 2011), and all of the key performance parameters (KPPs) were met.

200 West Area Groundwater Treatment Facility - Construction was complete on the major system components at the end of September 2011, and pipe installation is ongoing. The independent operational testing on the components will be done through December 2011. In December the bioreactor feeding system will start up, and integrated testing of all the components will be done.

100-NR-2 - DOE-RL noted that this project wasn't planned for FY11, but the resources on the ground were available, and it was funded through some efficiencies. The existing 300-foot barrier was expanded on each side to make it a 900-foot barrier. The expansion covers the substantially contaminated portions of the plume. The wells are in place and are providing monitoring service. A new injection skid was built as part of the new expansion.

100-HR-3 - The DR-5 pump and treat system has been put into cold standby, and the wells that went into that system have been rerouted into one of the other pump and treat systems.

200-UP-1 - Three extraction wells were completed which will support the new SX extraction system. The SX extraction building is anticipated to be construction complete in November 2011. The milestone construction complete date is in December 2011.

Deep Vadose Zone - Approximately 10,000 gallons have been removed during the B Area perched water removal test, and the water does not appear to be going down much. The water is fairly heavily contaminated with technetium at about 100 times drinking water standards, which is significantly higher concentrations than what is in the aquifer down below. The test will continue for a while longer. Ecology asked if the water is sent to the effluent treatment facility (ETF) for treatment. DOE-RL responded that it is taken to ETF, but the long-range plans call for aquifer treatment in the area. If the testing goes on for an extended period, the possibility of piping the water to 200 West has been considered, and then utilizing the 200 West treatment facility. EPA asked where the technetium goes after the contaminated water is treated at ETF. DOE-RL stated that the technetium is sent to ERDF. DOE-RL added that the technetium is put in an ion exchange and converted to powder and disposed, and noted that Ecology has raised a technical issue that the tech should be better stabilized prior to disposal. Ecology stated that there is a solid residue after the contaminated water is treated, and the question is whether there is a better waste form. Ecology added that if there are high concentrations of tech, ERDF's performance assessment may be impacted and ERDF may not be the best place to take the ETF residues. DOE-RL noted that grouting the residue has been considered, and that ETF is due for significant upgrades to support the Waste Treatment Plant. Ecology pointed out that the upgrades are due in 2018. DOE-RL responded that there is a push for accelerated startup, but the

tech issue is likely a short-term problem.

Soil and Groundwater Drilling Progress FY2011 - Ecology noted that the top of the slide on the handout has 66 wells completed, and the number below indicates drilling of 54 wells completed. DOE-RL responded that some of the wells are still in completion.

Soil and Groundwater Sampling Progress FY2011 - DOE-RL reported that the sampling metric was met in FY2011. Ecology asked about the impact due to the issues with the shutdown of the 222-S lab and WSCF. DOE-RL stated that some of the samples were lost due to hold times. DOE-RL is working through the issues of hold times. Ecology expressed the concern that coupled with the shutdown on well sampling earlier in the year, that a lot of well samples have been lost. DOE-RL responded that it is about 100 percent caught up on the situation, and there will be presentations given to the regulators on the status of the samples.

Milestone Summary - DOE-RL pointed out the three milestones highlighted in red, indicating adjustments to the submittal of the three RI/FS and proposed plans related to the River Corridor. The target dates were not changed, but new forecast dates were established.

Project Baseline Performance - DOE-RL noted that the format was revised for the cost and schedule performance. The ARRA work was finished and completed within budget, meeting all the KPPs that were scheduled.

Planned Activities Next 6 Months - DOE-RL noted that further discussion is needed regarding the two closure plans in the Outer Area. Ecology stated that it has been having discussions with DOE-RL and will keep working the issue. DOE-RL stated that four major criteria have been defined for efficiencies to be implemented in DOE-RL individual performance. ODOE inquired about any impacts resulting from the reduction of rad technicians from 65 down to 19. DOE-RL responded that most of the sampling activities for the 100 and 300 Area RI/FS's have been completed, which used a lot of rad techs. The pump and treat systems have a minimal need for rad techs, and routine sampling uses some rad techs, depending on where sampling is done. DOE-RL added that there may be impacts to other projects where the need for rad techs is highly variable and more critical, such as PFP. Ecology noted the reduction in hydrogeologists for groundwater monitoring and sampling, and asked how the requirements will be met for quarterly monitoring and groundwater performance reports. Ecology added that the effect of the reductions needs to be documented. DOE-RL responded that there are targets established which anticipate efficiencies and reductions in certain areas, and DOE-RL will have to work through systematically on a case-by-case basis. Ecology asked for a heads-up if sampling or monitoring is to be deferred. DOE-RL stated that its commitment is to meet the requirements.



Thursday, October 20, 2011
Ecology Offices, Conference Room 3A/B
3100 Port of Benton Way
Richland, Washington

Agenda
River Corridor/Central Plateau Milestone Review Meeting
Chairperson: Dave Einan

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	PPF 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-16 and 85	Central Plateau Remediation
10:25 a.m.	M-15, 16, 24, 37 and 85	Soil and Groundwater Remediation
10:50 a.m.		Adjourn Milestone Review

Tri-Party Agreement River Corridor/Central Plateau Milestone Review
October 20, 2011

<u>Name</u>	<u>Organization</u>
<u>Reed Kaldor</u>	<u>MSA / TPA</u>
<u>Larry Gadbois</u>	<u>EPA</u>
<u>Jeb Blackburn</u>	<u>WCH</u>
<u>KEN MOSE</u>	<u>MSA</u>
<u>Joy Shoemaker</u>	<u>CHPRC</u>
<u>Lorna Dittmer</u>	<u>CHPRC</u>
<u>Rick Bond</u>	<u>Ecology</u>
<u>Michael Collins</u>	<u>DOE</u>
<u>Steve Balone</u>	<u>DOE</u>
<u>Richard Bloom</u>	<u>CHPRC</u>
<u>Bill Cox</u>	<u>CHPRC</u>
<u>Shannen Day</u>	<u>DOE</u>
<u>Deborah Singleton</u>	<u>Ecology</u>
<u>Al Farabee</u>	<u>DOE</u>
<u>Michael Clune</u>	<u>DOE</u>
<u>Brian Charbonnet</u>	<u>DOE</u>
<u>JAMES LYNCH</u>	<u>DOE-ORP</u>
<u>Naomi Brand</u>	<u>DOE-RL</u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>

Tri-Party Agreement River Corridor/Central Plateau Milestone Review
October 20, 2011

<u>Name</u>	<u>Organization</u>
Terry Noland	MSA
Kathy Knox	Knox Court Reporting
Nina Menard	ECY
ROB PIRRO	ODSA
Mark French	DOE-RL
Roger Quintero	DOE-RL
Jon Peschong	DOE-RL
Wayne Johnson	WCH
Donna Wask	WCH
John Price	ECY
Cheryl Whalen	Ecology
Jane Hedger	Ecology
Craig Cameron	EPA
Stacey Ciment	ODOE
Melinda J Brown	Ecology NWP
Ellen Mattlin	DOE-RL
Joan	Ecology

RIVER CORRIDOR CLOSURE PROJECT

DOE's Largest Environmental Cleanup Closure Project

TPA Quarterly Review

For Period: July - September 2011



Tri-Party Agreement

River Corridor Milestones:

M-16

M-89

M-92

M-93

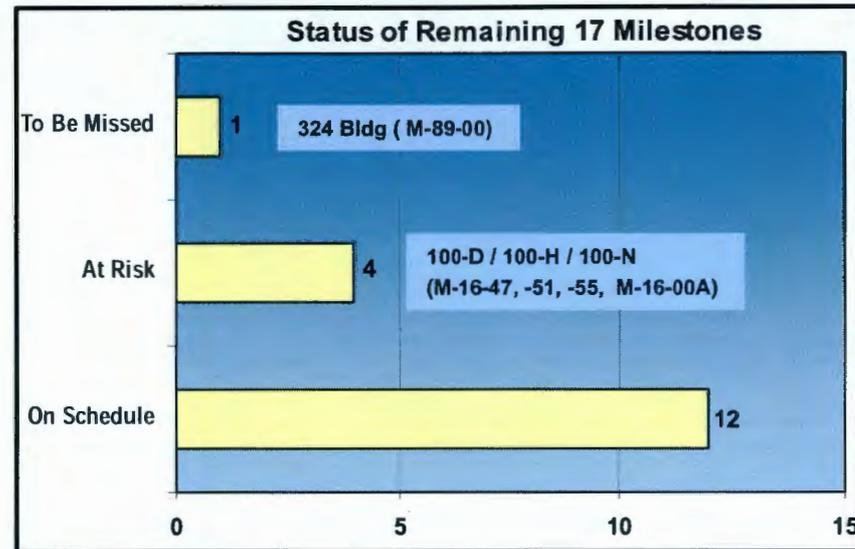
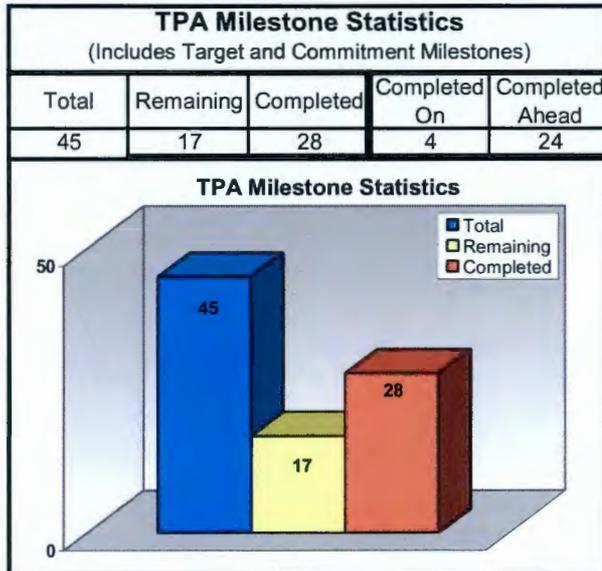
M-94

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

October 20, 2011

Protecting the Columbia River

E1012043



Quarterly Summary (July - September 2011)

- **Completed TPA Milestones:**

- No milestones were completed during this reporting period.

- **Change Requests Pending Approval:**

- Two change requests are pending approval:

- M-16-11-17 – Remove waste sites from M-16-51, Complete Interim Remedial Actions for 100-H Area, due 12/31/11
 - M-16-11-18 – Remove waste sites from M-16-47, Complete Interim Remedial Actions for 100-D Area, due 12/31/11
 - (Waste site closure for removed sites will be completed under M-16-00A)

TPA MS No.	Compliance Date	Title	Status	Comments
M-16 Milestones - Remedial Action (milestones through 12/31/2012 and "at risk")				
M-16-47	12/31/11	Complete Interim RA for 100-D Area	At risk	DOE submitted 90-day notice to Ecology and further discussions are pending Ecology response.
M-16-51	12/31/11	Complete Interim RA for 100-H Area	At risk	DOE submitted 90-day notice to Ecology and further discussions are pending Ecology response.
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, 300-265, 300-257, 300-214, and 300 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.
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) began in July. Remediation of 600-29 started September 2011.
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-16-47, -51, -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 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:

- Started remediation of deep chromium sites at 100-D Area.
- Restarted backfill at 100-D/H Areas; continued backfill at 100-IU-2/6.
- Continued 118-K-1 remediation and found more fuel.
- Completed bench construction at 181N, 181NE, and 1908NE.
- Continued remediation of 100-N-61/63/64 pipelines.
- Successfully completed 618-11 vertical pipe unit technology development proof-of-concept testing.
- Received approval of 19 waste site closure documents during this reporting period (includes 1 American Recovery and Reinvestment Act [ARRA] site).
- Provided Draft A screening level ecological risk assessment report (Releases to Columbia River Vol. I) to regulators for review.
- Provided Draft C ecological risk assessment report (RCBRA Vol. 1) to regulators for review.
- Transmitted Segment 1 Interim Remedial Action Report, Rev. 0 to EPA.
- Transmitted 100-BC-1 Operable Unit Interim Remedial Action Report, Rev. 0 to EPA.

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

- Continued planning for remediation of new waste site 300-296 under B-Cell. Received lab results of soil sample under B-Cell; report in development.

M-93 – Reactors Final Disposition:

- Continued below-grade demolition/loadout of 105N fuel storage basin.
- Completed installation of safe storage enclosure (SSE) roof panels and roof siding.
- Continued installation of SSE control and monitoring system.

M-94 – 300 Area Surplus Facilities Disposition:

- Completed 340B Waste Loading Building above-grade demolition/loadout.
- Completed 309 Plutonium Recycle Test Reactor dome wall cutting.
- Shipped 327 lower SERF cell and carousel to ERDF for disposal.



Bench Construction at 181NE and 1908NE



105N Reactor ISS Progress

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

ERDF – (ARRA scope)

- For period July-September, disposed nearly 739,000 tons of waste; achieving a quarterly disposal record. Disposed a record 2,255,000 tons of waste during FY11, bringing total to 6,412,000 tons disposed since WCH assumed River Corridor cleanup responsibilities 8/27/05.
- Completed construction of all new ERDF maintenance facilities – equipment, truck, container facilities, and operations center.
- Coordinating ERDF performance assessment (PA) with Tank Closure and Waste Management Environmental Impact Statement. Estimating draft PA to be issued in July 2012.



Aerial View of ERDF

Significant Actions Planned – For Next 3 Months:

M-16 – Remedial Action / Risk Assessment:

- Commence revegetation at 100-H Area.
- Complete 100-IU-2/6 backfill of TPA sites.
- Complete excavation and loadout of 118-K-1 Burial Ground.
- Complete all 618-11 safety basis work to support NRC license amendment.
- Complete readiness activities to prepare for 300 Area confirmatory sampling campaign.

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/loadout of 105N Fuel Storage Basin.
- Complete acceptance testing of SSE control and monitoring system.

M-94 – 300 Area Surplus Facilities Disposition:

- Complete Phase II of 327 below-grade demolition.
- Complete deactivation of remaining 309 building.

ERDF – (ARRA scope)

- Train new teamsters for shuttle truck operations.
- Continue treatment of 100-C-7 land disposal restriction (LDR) waste.

PERFORMANCE SUMMARY (includes ARRA)
Contract Inception (8/27/05) through September 2011
 (\$K)

	IPB		CUMULATIVE			Previous Quarter Comparison			
	BAC	EAC	BCWS	BCWP	ACWP	SCHEDULE VAR (\$)		COST VAR (\$)	
						Jun	Sep	Jun	Sep
D4	550,185	526,422	386,288	442,583	350,936	57,956	56,295	95,023	91,647
Reactor ISS	87,920	89,500	74,129	71,633	70,182	111	-2,496	2,178	1,451
Field Remediation	603,179	760,388	466,002	457,531	427,906	12,013	-8,471	41,700	29,625
Waste Operations	440,928	421,876	311,090	404,322	318,055	100,615	93,232	85,534	86,267
ESFC	70,806	68,681	59,681	58,733	50,580	-192	-948	7,258	8,153
Mission/General Support	276,425	342,446	248,177	248,177	235,322	0	0	8,498	12,855
Transition	3,979	3,747	3,979	3,979	3,747	0	0	232	232
Contingency	54,240	54,240							
TARGET COST TOTAL	2,087,663	2,267,300	1,549,345	1,686,958	1,456,728	170,502	137,613	240,422	230,230

Schedule Variance (PMB): \$137,613K

- Acceleration of 300 Area and 100-N Area building demolitions.
- Remediation delays at 118-K-1, 100-D closeouts, and 300 Area/100-N excavations. Partially offset by accelerated work at 100-B/C.
- 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 transportation, treatment, and disposal support to accelerated work in FR and D4 Projects.

Cost Variance (PMB): \$230,230K

- Significant underruns experienced in 300 Area building characterization, deactivation, and demolition activities.
- 100-D, 100-F, 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 September 2011
 (\$K)

	IPB		CUMULATIVE			Previous Quarter Comparison			
	BAC	EAC	BCWS	BCWP	ACWP	SCHEDULE VAR (\$)		COST VAR (\$)	
						Jun	Sep	Jun	Sep
RL0041.R1.2 - Cell 9 / ERDF	51,361	44,303	51,361	51,361	44,303	-336	0	6,576	7,058
RL0041.R1.3 - Acc Rem / ERDF	59,737	43,437	59,737	59,737	43,281	3,563	0	16,454	16,456
RL0041.R1.4 - Cell 10	37,672	26,789	37,672	37,672	26,789	6,513	0	10,930	10,883
RL0041.R1.5 - Waste Ops	26,000	30,677	23,354	25,306	24,891	2,048	1,952	-546	415
RL0041.R2 - 618-10	67,622	68,796	67,622	62,987	52,300	7,270	-4,635	5,121	10,687
Contingency	3,179	3,179							
TARGET COST TOTAL	245,571	217,181	239,746	237,063	191,564	19,055	-2,683	38,533	45,498

Schedule Variance (PMB): (\$2,683K)

- Fewer samples taken and less soil excavated than planned due to all field work activities suspended for conduct of operations and stand-down.
- ERDF operations ahead of schedule due to greater than planned quantities being available.

Cost Variance (PMB): \$45,498K

- ERDF Cells 9/10 construction realized efficiencies.
- ERDF equipment and facility upgrade costs less than budgeted.
- ERDF realized efficiencies in chromium and lead treatment.
- Field Remediation project support requirements less than planned.
- Fewer comments received and streamlining the confirmatory sampling process (e.g., use of fewer sub-sites than originally planned) resulted in significantly lower analytical costs and positive cost variances in several accounts.
- 618-10 drum punch procurement/fabrication less than budgeted, fewer anomalies found than anticipated, and 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.
- Craft layoffs may cause impacts to the remediation and demolition schedule for M-16-55.
- Working with Ecology to resolve comments and obtain approvals of closure documents associated with TPA Milestones M-16-47 and M-16-51.
- Working with Ecology to develop a path forward for closure of the 126-H-2 waste site.



100-K Remediation

TPA Milestones: M-016 and M-093

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

**Fourth Quarter 2011
October 20, 2011**



Accomplishments – 4th Quarter

Completed TPA Milestones:

- M-016-170: Complete KOP material pretreatment.
 - Completed KOP pretreatment operations in the KW Basin consisting of density separation, size reduction and wire removal in advance of the due date 9/30/11.

Intake Structures

- Demolition of the 181-KE & 181-KW Intake Structures is complete and the shoreline of the Columbia River at 100-K has been restored.



181-KE Intake structure before removal



181-KE Intake structure after removal



Accomplishments – 4th Quarter

D4

- Completed the Utilities Re-Route Project which enabled additional D4 work to be completed.
- Completed demolition of 10 structures with Recovery Acts funds for a total of 26 as of September 30, 2011.
- Completed demolition of the 183.1-KE Head house below grade structure.
- Initiated demolition of the 183.2KE Sedimentation Basins, while successfully working around migratory bird nests.
- Completed demolition of the 183.3KE Filter Beds.
- Completed demolition of 183.4KE and 183.4KW Clear well.
- Restored shoreline where the intake structures were removed.
- Completed D4 of all facilities in M-016-53.
- Continued 105-KE ISS activities.



Accomplishments – 4th Quarter

KE Reactor ISS

- 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. (M-093-22)



Accomplishments – 4th Quarter

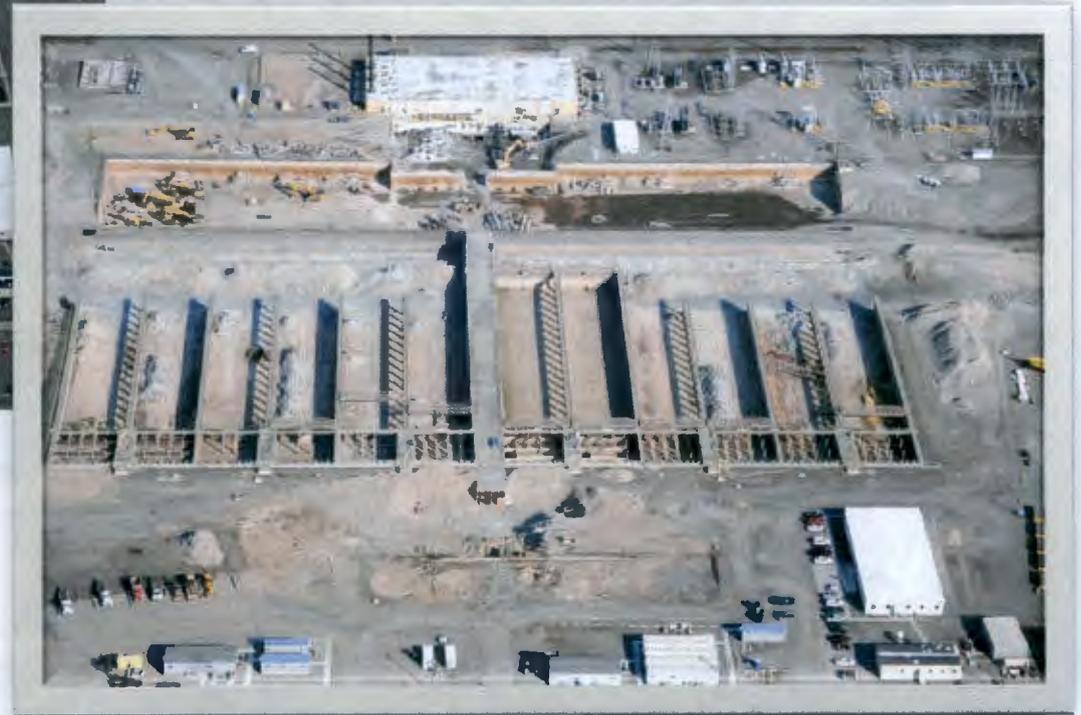
Waste Sites

- Completed soil and substructure remediation of the 100-K-6 and 100-K-36 Waste Sites and removal of the 105-KE Admin/Annex, 1706-KE, 1706-KER and 1706-KEL substructures.
- Completed second set of direct push technology gamma logging measurements near the 105-KE Reactor under the reactor block.
- Received approval of the Memorandum of Agreement, the Verification Sampling Instruction and Backfill Concurrence Checklist and began backfilling the 100-K-63 Waste Site in October 2011.
- 7,541 tons of soil removed.



Accomplishments – 4th Quarter

183-KE Sedimentation Basin



Accomplishments – 4th Quarter

Sludge Treatment Project - KOP

- **Knockout Pot (KOP) Sludge Pretreatment**
 - Completed KOP pretreatment operations in the KW Basin consisting of density separation, size reduction and wire removal (M-016-170).
- **KOP Sludge Processing**
 - Initial Operator Training on system components has been completed.
 - Production of the copper inserts that will be used to hold the KOP product material was initiated. Subcontractor and CHPRC technical personnel are reviewing documentation to ensure consistency with procurement specification and drawings.
 - Procurement of additional Multi Canister Overpacks (MCOs) is progressing including the ordering of material and fabrication.
 - The Remedial Design Report and the QAPjP/SAP have been forwarded to EPA for approval.



Accomplishments – 4th Quarter

STP Phase 1: K West Basin Annex Structure and Non-Processing Systems Design and Construction (M-016-174)

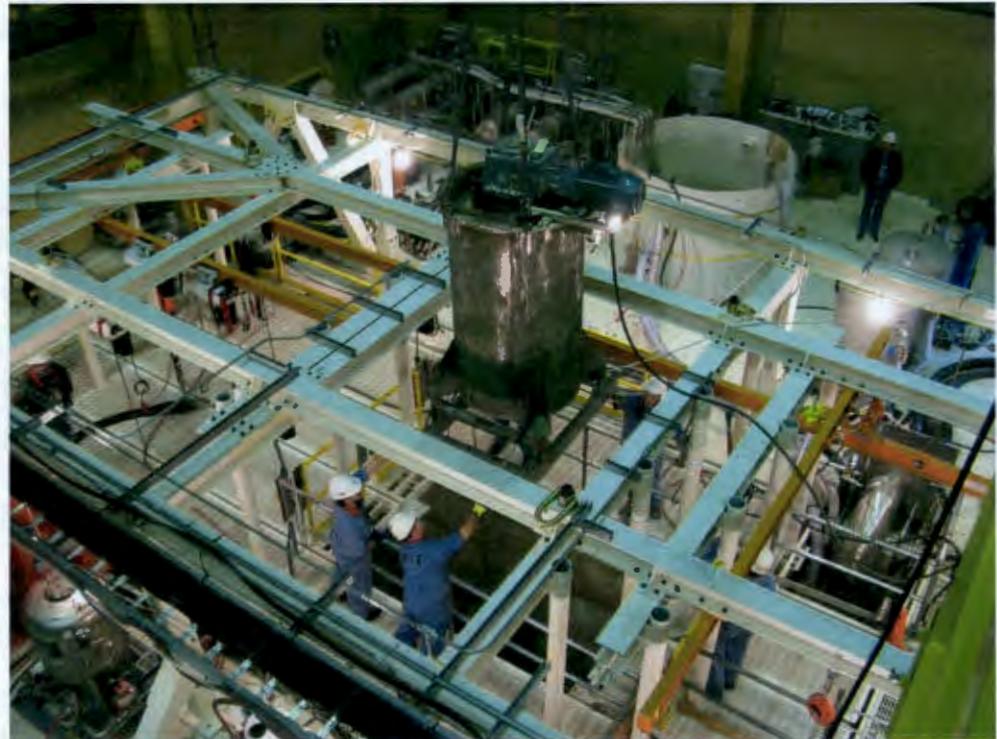
- Continued design of the Annex structure and the non-process related systems and is nearing completion.
- Modifications are in progress of the existing annex including:
 - addition of temporary barrier to separate the basin and annex air spaces
 - installing a fire wall in the existing annex
 - adding structural bracing.
- Procurement and selection of a subcontractor for the enhancement of the annex is in progress.



Accomplishments – 4th Quarter

STP Phase 1: Processing System Design, Testing, and Procurement (M-016-174)

- Preliminary design of K Basin sludge retrieval, transport and storage systems in nearing completion.
- Full scale integrated testing of the retrieval, transport, and storage systems at MASF was completed.
- Optimization testing continues.
- Completed characterization of KW floor sludge (container 210) and settler tank sludge (container 230); conducting validation and verification assessment and evaluation.



Accomplishments – 4th Quarter

STP Phase 2:

Sludge Treatment and Packaging Technology Evaluation (M-016-173)

- Completed a technology evaluation and alternatives analysis for sludge treatment and packaging.
- Prepared report recommending warm water oxidation be identified as the technical baseline for STP Phase 2.
- Performed engineering evaluation of results from the bench scale testing of Uranium metal size reduction technology (immersion milling).



Quarterly Milestone Summary

(July – September 2011)

TPA Number	Due Date	Description
M-016-171	3/31/12	Complete K Basin Sludge Treatment and Packaging Technology Evaluation Report and a Submit a Schedule including proposed new interim milestones for bench scale or identified testing in order to meet M-016-73.
M-016-172	9/30/12	Complete KOP Material Removal From 105-KW Fuel Storage Basin
M-016-053	12/31/12	Complete Interim Response Actions for the 100 K Area Within the Perimeter boundary and to the River for Phase 1 Actions
M-016-174	09/30/13	Complete Final Design of Sludge Retrieval and Transfer System
M-093-22	07/31/14	Complete 105KE Reactor Interim Safe Storage in Accordance with Remedial Design/Remedial Action Work Plan
M-016-175	09/30/14	Begin Sludge Removal from 105-KW Fuel Storage Basin
M-016-173	03/31/15	Select K Basin Sludge Treatment and Packaging Technology and Propose New Interim Sludge Treatment and Packaging Milestones
M-016-143	12/31/15	Complete the Interim Response Actions for the 100 K Area Within the Perimeter Boundary and to the River for Phase 2 Actions
M-016-176	12/31/15	Complete Sludge Removal from 105-KW Fuel Storage Basin
M-016-178	12/31/15	Initiate Deactivation for 105-KW Fuel Storage Basin
M-093-26	12/31/15	Initiate 105-KW Reactor Interim Safe Storage
M-016-181	09/30/19	Complete Deactivation, Demolition and Removal of 105-KW Fuel Storage Basin
M-016-186	12/31/19	Initiate Soil Remediation Under 105-KW Fuel Storage Basin
M-093-27	12/31/19	Complete 105-KW Reactor Interim Safe Storage
M-016-00C	12/31/20	Complete All Response Actions in the 100 K Area



Project Baseline Performance

Contract to-date

RL-0041 Nuclear Material Stabilization and Disposal	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Cost Variance (\$)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Variance at Completion (VAC)	SPI	CPI
ARRA RL-0041 Capital Asset	173.7	173.6	174.9	-1	-1.3	176.3	177.5	-1.2	1.00	0.99
Base	77.2	78.4	65.6	1.2	12.8	351.5	340.0	11.6	1.02	1.20
Total	250.9	252.0	240.5	1.1	11.5	527.8	517.5	10.4	1.00	1.06

RL-0012 Nuclear Material Stabilization and Disposal	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Cost Variance (\$)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Variance at Completion (VAC)	SPI	CPI
Base Total	250.8	249.2	249.8	-1.6	-0.7	606.0	605.1	0.9	0.99	1.00

Numbers are rounded to the nearest \$0.1M.



Planned Activities

Next 6 months

RL41: D&D / Soil Remediation

➤ D4 Scope

- 190KW Main Pump House - Complete demolition and load out.
- 183.2KE Sedimentation Basin – Continue demolition and load out.
- 1908K Outfall Structure – Complete demolition and load out.
- 183.7KE Tunnel – Complete demolition preparations.
- 105KE Water Tunnel – Commence demolition and load out.
- 165KE Power Control Building – Continue asbestos abatement.

➤ 105KE Reactor ISS

- Complete 105-KE Reactor ISS design.
- Statement of work for the construction contract ready to be released.

➤ Waste Site Remediation – Area AM

- Complete 100-K-64 (West side) Memorandum of Agreement for waste site remediation.
- Commence remediation activities.



Planned Activities

Next 6 months

RL41: D&D / Soil Remediation (con't)

➤ **Waste Site Back Fill – Area's AA, AG, AH, AJ**

- Obtain EPA Approval of Verification Sampling Instructions.
- Complete / evaluate sampling.
- Commence backfilling of excavated areas.
- Complete backfill of 100-K-63.

RL12: Sludge Treatment Project

➤ **K West Basin Annex Structure and Non-Processing Systems Design and Construction**

- Complete initial modifications to the existing KW Basin annex.
- Complete the final design of the enhanced annex structure.
- Select a contractor for constructing the enhanced annex.
- Prepare decisional draft of the Remedial Design Report for the Engineered Container Retrieval and Transfer System.



Planned Activities

Next 6 months

RL12: Sludge Treatment Project

➤ Processing System Design, Testing, and Procurement

- Continue testing of the retrieval, transport, and storage systems at MASF.
- Complete preliminary design report and initiate final design.
- Develop transportation safety documentation associated with the transfer of sludge to T Plant.
- Perform data validation of Container 210 KW Floor sludge and Container 230 Settler Tank sludge characterization results.

➤ Sludge Treatment and Solidification Technology Evaluation

- Complete review of sludge treatment technology evaluation report.
- Submit technology evaluation report and testing schedule to complete M-016-171.





U.S. DEPARTMENT OF
ENERGY

TPA M-036-01
Quarterly Performance Report
July-September, 2011



October 20, 2011
Shannon Ortiz, DOE-RL
Lifecycle Report Project Manager



U.S. DEPARTMENT OF
ENERGY

This page intentionally left blank.



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 was completed and submitted to EPA and Ecology on July 21, 2011.
2. The 2011 Lifecycle Report was posted on the www.Hanford.gov on August 4, 2011. Feedback is desired by November 10, 2011.
3. Consulted with Tribal Nations on August 16, 2011.
4. Briefed the HAB on September 9, and the HAB Budget and Contract Committee on August 17, and September 14, 2011.
5. Work is underway on the 2012 Lifecycle Report.

SIGNIFICANT PLANNED ACTIONS FOR THE NEXT SIX MONTHS

1. Public input related to the 2011 Lifecycle Report concludes on November 10, 2011. Comments need to be submitted in writing. Feedback received will be used to influence the 2013 Lifecycle Report.
2. Receive feedback from Ecology and EPA on the 2011 Lifecycle Report.
3. Complete and provide the 2012 Lifecycle Report to EPA and Ecology by January 31, 2012.
4. Begin the 2013 Lifecycle Report. Reach consensus with EPA and Ecology on selected alternative analysis cleanup projects.



U.S. DEPARTMENT OF **ENERGY**

BUDGET/COST STATUS

No issues identified.

ISSUES

1. The 2012 Lifecycle Report is currently under development, and due to the compressed schedule for the first two annual reports (the 2011 and the 2012 Report) the 2012 Report will not have the benefit of the full public feedback process prior to issuance, nor will it vary significantly from the 2011 Lifecycle Report in terms of cost and schedule estimates.

NON-TPA REGULATORY ISSUES/POTENTIAL IMPACTS TO TPA

No major issues identified.



CH2MHILL
Plateau Remediation Company



PFP Closure Project

TPA Milestone: M-083



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

**Fourth Quarter 2011
October 20, 2011**



One Culture. One Team.

Quarterly Milestone Summary

(July – September 2011)

TPA Milestone	Due Date	Status	Milestone Description
M-083-24	06/30/12	On Schedule	Submit S&M Plan
M-083-43	09/30/13	Deleted	Complete Transition of the 242-Z Waste Treatment Facility and 236-Z PRF
M-083-44	09/30/15	On Schedule	Complete Transition of the 234-5-Z (PFP), 243-Z LLW Treatment, 291-Z and Z-1 Stack
M-083-00A	09/30/16	On Schedule	Complete PFP Facility Transition and Selected Disposition Activities

Accomplishments – 4th Quarter

- PFP Demolition Removal Action Work Plan Draft and Surveillance and Maintenance Plan provided to Ecology.
- Rooms ready for Demolition activities completed in 29 of 69 areas of 234-5Z
- PRF pencil tank size reduction in PRF canyon (15 of 196 tanks completed to date)
- Removed 5 Gloveboxes during the quarter (158 total removed, 155 shipped or dispositioned by PRC).
- Removed and packaged for disposal 224 contaminated HEPA filters from deactivated final filter rooms 311 and 316

Accomplishments – 4th Quarter

- 5 of the 6 vault/ancillary buildings associated with 2736 complex ready for demo and turning them over to CHPRC D&D.
- 775 Linear Feet of Asbestos Removed from PFP Piping and Ducting during the quarter (almost 16,000 total feet removed).
- Slightly over 100 feet of transfer lines removed for the quarter (591 Total Feet Removed).

Accomplishments



HC-15 Furnace Removal

Project Baseline Performance

Contract to-date

RL-0011 Nuclear Material Stabilization and Disposal	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)
	\$130,412	\$120,249	\$129,101	(\$10,163)	(7.8%)	(\$8,852)	(7.4%)-	\$130,412	\$129,101	(\$1,311)
ARRA Total										
	\$31,527	\$33,204	\$38,267	\$1,678	5.3%-	(\$5,063)	(15.2%)	\$31,527	\$38,267	(\$6,740)
Base										
	\$161,938	\$153,453	\$167,454	(\$8,485)	(5.2%)	(\$13,914)	(9.1%)	\$161,938	\$167,951	(\$6,013)
Total										

Numbers are rounded to the nearest \$0.1M.



Project Baseline Performance

Contract to-date

FYTD Schedule Performance: (\$-8.5M/-5.2%)

- Unfavorable variance due to:
 - Breathing Air Issues
 - Beryllium Issues
 - Radiological Controls Issues
 - Contamination Events
 - Reallocation of Resources to support KPP Glovebox Work
 - PRF D&D delays, resulting from reassigned field work teams, failure of the canyon crane
 - Loss-of-normal-ventilation work restriction
 - Workforce restructuring

FYTD Cost Performance: (\$-13.9M/-9.1%)

- Inefficiencies associated with 234-5Z process area D&D teams providing support for electrical isolations, 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 and the costs associated with loss of normal ventilation and the PRF canyon crane failure. The cost associated with loss of normal ventilation includes additional exhaust fan maintenance and the down-time of impacted D&D resources unable to perform work in their normal assigned location.

Planned Activities

Next 6 months

- Demolish 6 Vault Complex Buildings 2736-Z, 2736-ZA, 2736-ZB, 2736-ZC, 2721-Z, 2731-ZA and adjacent nitrogen generator/storage facility
- Continue 234-5Z glovebox clean out, removal and disposition
- Continue removal of process vacuum piping and transfer lines in 234-5Z
- Continue removal of asbestos insulation from 234-5Z
- Restart PRF Canyon pencil tank removal
- Restart PRF glovebox cleanout and removal (Misc. Treatment, Column GBs)
- Ecology approval of PFP Demolition RAWP and S&M Plan

**Land Disposal Restrictions Report
(Tri-Party Agreement Milestone M-26-01)
Quarterly Presentation
October 20, 2011**



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



Accomplishments and Actions

- **Accomplishments**
 - Responded to informal Ecology comments on CY 2010 LDR Summary Report
 - Reclassified 42 containers of high dose concreted (ANL) waste as LLW rather than MLLW, Ecology has requested additional information

- **Actions Planned for the Next Six Months**
 - Complete actions associated with CY 2010 LDR Summary Report
 - Address Ecology questions on ANL waste
 - 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



October 20, 2011



EM Environmental Management

safety ✦ performance ✦ cleanup ✦ closure

www.em.doe.gov

Significant Accomplishments of the Last Three Months

- M-091-01 Acquire Treatment/Processing Capabilities for RCRA TRUM Waste
 - Critical Decision 0 received – 12/13/07
 - Next goal – Milestone M-091-01A: Complete conceptual design and submit milestone change package by 09/30/16
- M-091-03 Submit Annual Project Management Plan
 - CY 2010 PMP approved 08/12/11
 - Next goal – Milestone M-91-03: Submit CY 2011 PMP by 06/30/12



EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

www.em.doe.gov

Significant Accomplishments of the Last Three Months

- M-091-40 Retrieve CH Retrievably Stored Waste
 - Completed M-091-40T – Retrieve 2,000 m³ by 09/30/11
 - Next goal – Target M-091-40U-T01: Retrieve 250 m³ by 09/30/12 – No funding has been identified
- M-091-41 Retrieve RH Retrievably Stored Waste
 - Completed 84 m³ of an estimated 135 m³ retrieved of non-caisson, RH RSW
 - Next goal – Milestone M-091-41A: Complete retrieval of non-caisson, RH RSW by 09/30/16



EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

www.em.doe.gov

Significant Accomplishments of the Last Three Months

- M-091-42 Treat CH, Small Container MLLW
 - Volume shipped – 716 m³ (since 09/15/10) (209 m³ in the quarter)
 - Volume treated – 549 m³ (since 09/15/10) (182 m³ in the quarter)
 - 10 m³ in aboveground storage
 - Next goal – Milestone M-091-42: Complete treatment by 09/30/17
- M-091-43 Treat RH and Large Container MLLW
 - Volume shipped – 588 m³ (since 09/15/10) (86 m³ in the quarter)
 - Volume treated – 501 m³ (since 09/15/10) (276 m³ in the quarter)
 - 58 m³ in aboveground storage
 - Next goal – Milestone M-091-43: Complete treatment by 09/30/17



EM Environmental Management

safety ✦ performance ✦ cleanup ✦ closure

www.em.doe.gov

Significant Accomplishments of the Last Three Months

- M-091-44 Treat and Designate RH and Large Container TRUM
 - Completed M-091-44Q (Repackage 300 m³ by 09/30/16)
 - Completed M-091-44R (Repackage 300 m³ by 09/30/17)
 - Volume shipped – 728 m³ (129 m³ in the quarter)
 - Volume repackaged – 728 m³ (206 m³ in the quarter) resulting in 275 m³ of certifiable waste
 - Volume assayed – 275 m³ (111 m³ MLLW, 164 m³ TRUM waste)
 - 9,960 m³ in aboveground storage (includes M-091-46 TRUM waste and TRU waste)
 - Next goal – Milestone M-091-44P: Designate aboveground TRUM by 12/30/12



EM Environmental Management

safety ✦ performance ✦ cleanup ✦ closure

www.em.doe.gov

Significant Accomplishments of the Last Three Months

- M-091-46 Treat CH, Small Container TRUM Waste
 - Completed M-091-46 A (Repackage 850 m³ by 09/30/11)
 - Completed M-091-46G (1,000 m³ by 09/30/11)
 - Volume repackaged – 866 m³ (29 m³ in the quarter)
 - Volume shipped to WIPP or AMWTP – 1,321 m³ (186 m³ in the quarter)
 - Next goal – Target M-091-46B-T01: Repackage 300 m³ by 09/30/12 – No funding has been identified
- Non-TPA – DOE-EM 90% TRU Waste Disposition – Hanford
 - Start – 16,553 m³
 - Remaining – 11,146 m³



EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

www.em.doe.gov

Department of Energy – Richland Operations Office

Fiscal Year 2011 (through September 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	8,074.0	8,074.0	8,586.2	0.0%	-6.3%
Waste Receiving and Packaging Facility (WRAP)	9,395.4	9,361.6	8,862.4	-0.4%	5.3%
T Plant	11,708.6	11,731.3	10,359.8	0.2%	11.7%
MLLW Treatment	15,372.4	13,397.7	11,491.5	-12.8%	14.2%
TRU Waste Retrieval	44,778.0	46,196.4	50,636.9	3.2%	-9.6%
TRU Waste Repackaging	21,457.3	21,947.7	19,676.5	2.3%	10.3%
TRU Waste Disposition	14,714.6	16,326.6	11,816.4	11.0%	27.6%
Project Management	19,945.0	19,945.0	21,745.2	0.0%	-8.9%



EM Environmental Management

safety ✦ performance ✦ cleanup ✦ closure

www.em.doe.gov

Variance Analysis

- **FYTD Schedule Variance:** The negative MLLW Treatment variance is due to more waste being treated in the previous year, leaving less to be “earned” this year. The positive TRU Waste Disposition variance is due to meeting FY 2011 goals so facility lay up work in anticipation of the FY 2012 budget.
- **FYTD Cost Variance:** The positive T Plant, TRU Waste Repackaging, and TRU Waste Disposition variances due to a baseline change to accommodate facility lay up work. The positive MLLW Treatment variance was due to delayed receipt of costs.



EM Environmental Management

safety ✦ performance ✦ cleanup ✦ closure

www.em.doe.gov

Actions Planned for Next Six Months

- M-091-03 – Start drafting the 2012 Project Management Plan
- M-091-42 – Receive remaining treated waste back from treatment vendors
- M-091-43 – Receive remaining treated waste back from treatment vendors
- Complete WRAP, T Plant, LLBGs lay up work (e.g., move waste to the Central Waste Complex, return leased equipment, move equipment and supplies to storage, maintain ventilation and fire protection, document facility conditions)





Central Plateau Remediation Project

(RL-40)

Milestone Review

M-016-00, M-085-00



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

Fourth Quarter 2011

Accomplishments – 4th Quarter

Completed TPA Milestones:

- None during 4th Quarter 2011.

Outer Area:

- Approx. 18,000 tons of soil removed
- 5 waste sites complete

Inner Area:

- 200-PW-1/3/6, 200-CW-5 ROD Completed

U Canyon Grout Fill

- Completed grout void fill of electrical gallery, piping gallery, process cells
 - Approx. 25,578 cu yards volume of grout at completion



Accomplishments – 4th Quarter

Industrial D&D/Facilities

- 284 East and 284 West Powerhouses dispositioned
 - 284 East: 61,975 sq. ft.
 - 284 West: 53,302 sq. ft.



284 East Powerhouse before...



284 East Powerhouse after...

Significant Accomplishments

200-BC-Control Area – Zone A

- Remediation of field excavation of the 140 acres, and the stockpile excavation, have been completed. A cumulative total of ~483,000 tons has been disposed of at ERDF (from Zone A and stockpile excavation).
- CERCLA post-soil removal verification survey measurements have been completed for 100% of the area.
- Final down post surveys to release the land area from radiological controls were completed.



Before

After



Significant Accomplishments

Railcars Disposition

- All railcars have been removed from the 200 North Area and dispositioned at either the B Reactor Museum (4) or the ERDF (12).
- Demobilization activities are complete.

200-MG-1

- 5 Waste Sites were backfilled and native seed mix was distributed.



The last railcar was shipped to B Reactor for preservation and display.

FY2011 Progress



Project Baseline Performance

Contract to date (Through August 2011)

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	188.8	184.0	177.4	(4.8)	-2.5	6.6	3.6	199.6	187.6	12.4
Outer Zone	<u>86.7</u>	<u>83.1</u>	<u>69.5</u>	<u>(3.6)</u>	-4.1	<u>13.6</u>	16.4	<u>89.4</u>	<u>86.3</u>	<u>10.4</u>
ARRA Total	275.5	267.1	246.9	(8.4)	-3.0	20.2	7.6	289.0	273.9	22.8
Base	<u>65.0</u>	<u>64.8</u>	<u>57.9</u>	<u>(0.1)</u>	-0.2	<u>7.0</u>	10.7	<u>733.2</u>	<u>742.7</u>	<u>16.8</u>
Total	340.4	331.9	304.8	(8.5)	-2.5	27.2	8.2	1,022.2	1,016.6	39.6

Numbers are rounded to the nearest \$0.1M.



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-085-01	09/30/12	Submit Change Package to establish date for major Milestone M-85-00	On Schedule
M-085-50	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-085-60	03/31/18	Complete EE/CA Report(s) for all Tier 2 Facilities listed in Appendix J	On Schedule
M-085-51	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
M-016-00 RL 40 –Complete Remedial Actions for all Non-Tank Farm and Non-Canyon Operable Units			
M-016-200A	9/30/17	Complete U Plant Canyon (221-U) Demolition in accordance w/ RD/RAWP	On Schedule
M-016-200B	9/30/21	Complete U Plant Canyon (221-U) Barrier Construction in accordance w/ the RD/RAWP	On Schedule



Planned Activities

Next 6 months

U Canyon

- Complete demobilization activities.

209E Project

- Disposition planned by October 31, 2011.

200 West Project

- Complete demobilization at 284 West.

MG-1

- Priority work if funds become available.





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

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

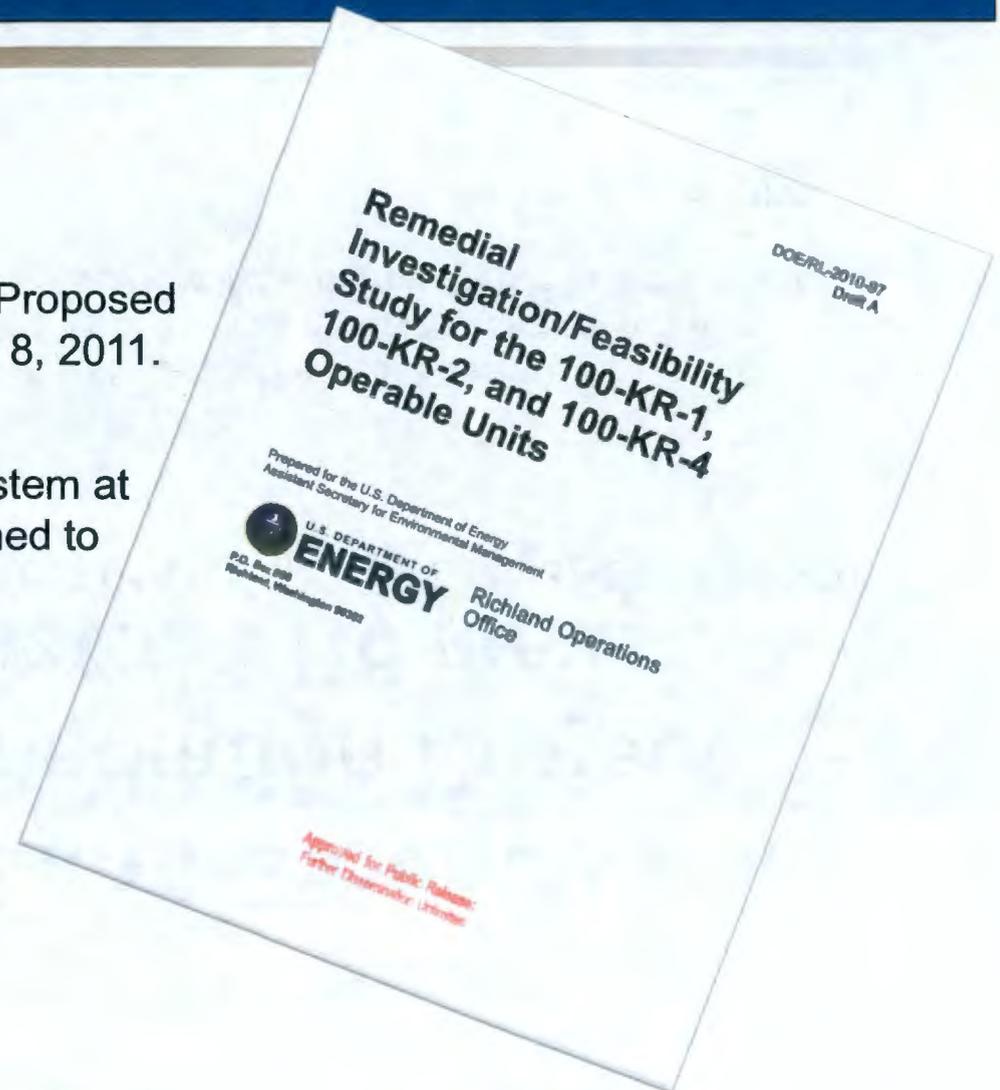
Fourth Quarter 2011



Accomplishments – 4th Quarter

Completed TPA Milestones:

- **M-015-66-T01:** Submit RI/FS Report and Proposed Plan for 100-KR-1/2/4 OUs on September 8, 2011.
- **M-016-111C:** Expand Pump and Treat System at 100-HR-3 to 800 gpm capacity. Transitioned to operations on September 29, 2011.



Accomplishments – 4th Quarter

Pump and Treat Operations

- Treated 162 million gallons on the River Corridor
- Treated 50 million gallons on the Central Plateau

Sampling

- 1,450 samples collected
- 127 aquifer tube samples collected from 62 aquifer tubes

Drilling and Decommissioning

- 13 groundwater wells installed in the 4th quarter; 405 contract to-date
- 11 wells decommissioned in the 4th quarter; 280 contract to-date



Significant Accomplishments

200 West Area Groundwater Treatment Facility

- Complete: 200W P&T KPP, RL-0030.R1.1 – Construction 200 West Groundwater Pump and Treat Major System Components



Significant Accomplishments

100-NR-2

- Completed the well injections to expand the existing 300-ft barrier by 600 feet to result in a 900-ft Apatite Barrier.
- Completed all Remedial Investigation field activities for the 100-N RI/FS Report.
- The 2010 annual performance summary report has been issued.



Drilling rig in operation at the 100-NR-2 area along the Columbia River.



Significant Accomplishments

100-HR-3

- New 100 HX facility construction complete and transitioned to operations.
- Placed the DR-5 pump and treat system into cold standby.
- Issued the 2010 annual performance summary report.
- All other RI/FS fieldwork is complete.



100 HX Facility Interior

Significant Accomplishments

100-KR-4

- Issued the 2010 annual performance summary report.

200-UP-1

- Completed the first (C8097, near S-13 crib) of 3 extraction wells.
 - Completed drilling of the 2nd extraction well (C8096, southeast corner of SSX) and undergoing well completion.



Significant Accomplishments

Deep Vadose Zone

- Completed active operations June 30, 2011.
- Initiated the B Area Perched Water Removal Test on August 30, 2011.
- Completed the ground-truthing boreholes at the Field Desiccation Test Site.



200-PW-1

- Met DOE goal which required Soil Vapor Extraction in FY 2011 to achieve a 20% increase in vapor volume treated over that treated in FY 2009.



FY2011 Progress



Slide 9

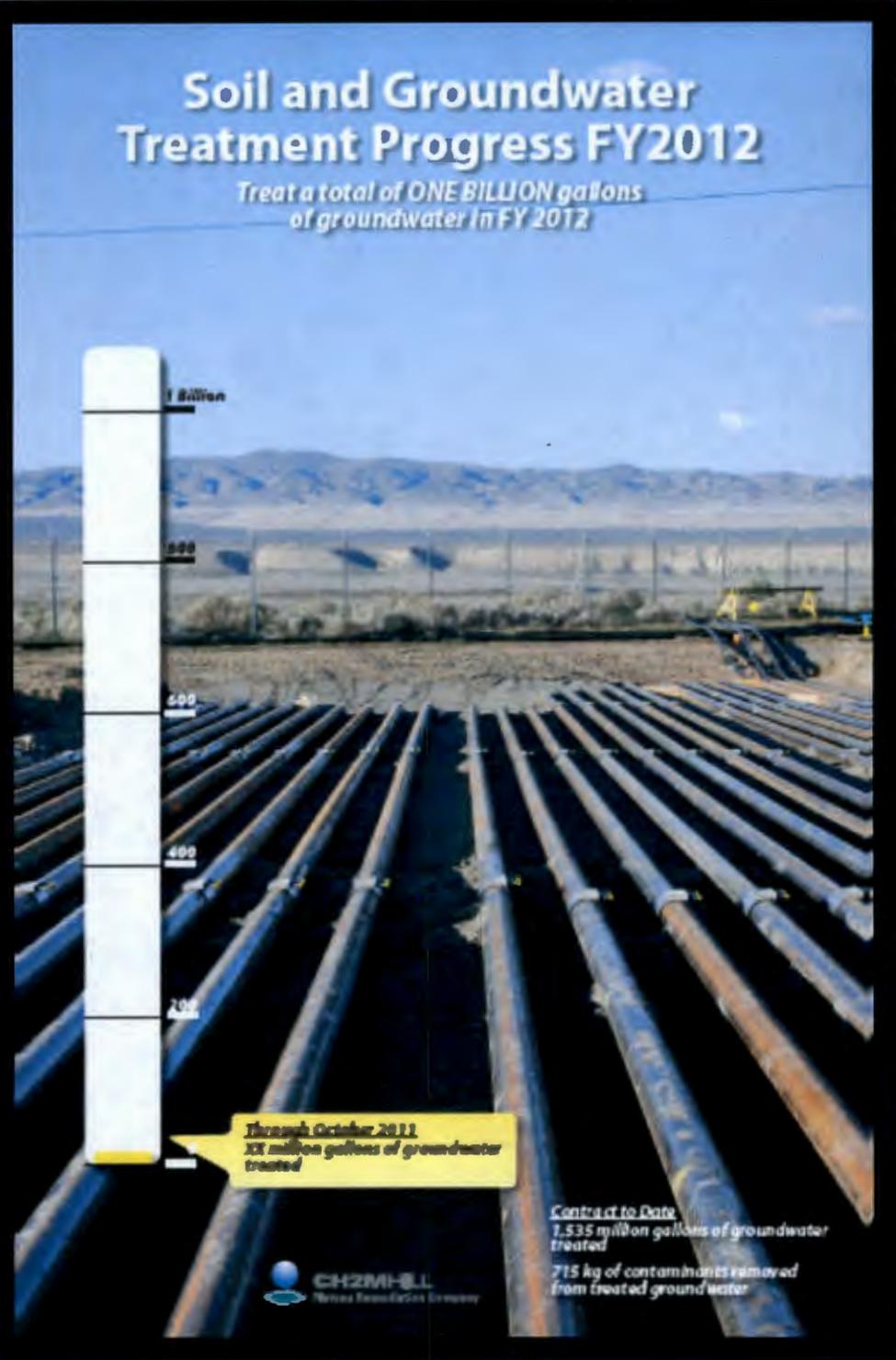
blf7

please shrink footer images so the TPA icon is not cut off
bryan.foley, 10/11/2011

FY2012 Soil and Groundwater Treatment Progress Site-Wide

Soil and Groundwater Treatment Progress FY2012

Treat a total of ONE BILLION gallons of groundwater in FY 2012



Slide 10

blf8 please improve the legibility of this slide

recommend red border around the " 1 billion" text at the top of the column so it draws your eye to that number
bryan.foley, 10/11/2011



Soil and Groundwater Drilling Progress FY2011

Complete drilling of
18 ARRA wells and 48 Base wells



FY2011 Progress

FY2011 Progress

Soil and Groundwater Sampling Progress FY2011

Conduct well sampling activities, completing over 30,000 analyses

Through September 2011
38,945 analyses performed
8,244 samples collected from 1,750 well sampling trips
1,031 aquifer tube samples collected from 448 sampling trips at 281 tubes

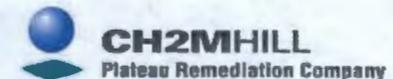


Contract to Date
103,040 analyses performed
41,910 samples collected from 6,424 well sampling trips
4,135 aquifer tube samples collected from 1,235 sampling trips



Milestone Summary

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-015-70-T01	11/24/11	(Forecast Date: 01/12/12) 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	(Forecast Date: 03/15/12) 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	(Forecast Date: 05/14/12) 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-015-110D	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-015-00D	12/31/12	Submit PP for all 100 & 300 Area OUs to Complete RI/FS Process	On Schedule
M-016-00	Complete Remedial Actions for all Non-Tank Farm and Non-Canyon Operable Units		
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



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-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



Change Requests – 4th Quarter

Change Request	New MS Date	Description	
M-015-21A	06/30/15	Submit 200-BP-5 and 200-PO-1 OU FS Report and PP(s) to Ecology	On Schedule
M-015-38B	10/30/14	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-015-91B	12/31/15	Submit FS Report and PP for 200-WA-1 OU (200 West Inner Area) to EPA	On Schedule
M-015-92A	06/30/15	Submit RFI/CMS and RI/FS Work Plan for the 200-EA-1 OU (200 East Inner Area) to Ecology	On Schedule
M-015-92B	12/31/16	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-015-110A	03/31/15	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.	On Schedule
M-016-120	08/13/12	GW Treatment System <50 gpm for Tc-99 Plume at S/SX Tank Farm	On Schedule
M-085-10A RL 30	06/30/14	Submit RI/FS Work Plan for 200-CB-1 (B Plant Canyon/associated past practice waste site) to Ecology	On Schedule



Slide 15

blf10

change font color for "New MS Date" column to green instead of the red color
bryan.foley, 10/11/2011

Project Baseline Performance

Contract to date (Through August 2011)

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 Cleanup Operations	165.9	167.1	169.1	1.2	0.7	(2.0)	-1.2	175.0	178.0	(3.0)
ARRA RL-0030.R1.2 Well Drilling Operations	36.0	38.2	35.8	2.1	5.9	2.4	6.2	40.7	38.0	2.7
ARRA RL-0030.R1.3 Support Operations	34.6	34.6	35.0	(0.0)	-0.0	(0.4)	-1.1	34.9	35.2	(0.2)
ARRA Total	<u>236.5</u>	<u>239.9</u>	<u>239.9</u>	<u>3.3</u>	<u>1.4</u>	<u>(0.0)</u>	<u>-0.0</u>	<u>250.6</u>	<u>251.2</u>	<u>(0.5)</u>
Base RL-0030.01 RL 30 (Operations)	359.1	357.8	364.8	(1.4)	-0.4	(7.1)	-2.0	1,223.5	1,231.4	(7.9)
Base RL-0030.C1 GW Remedy Implement	56.4	55.5	49.9	(0.8)	-1.5	5.6	10.1	<u>78.9</u>	<u>76.5</u>	<u>2.4</u>
Base Total	<u>415.5</u>	<u>413.3</u>	<u>414.7</u>	<u>(2.2)</u>	<u>-0.5</u>	<u>(1.4)</u>	<u>-0.3</u>	<u>1,302.4</u>	<u>1,307.9</u>	<u>-5.5</u>
Total	<u>652.1</u>	<u>653.2</u>	<u>654.6</u>	<u>1.1</u>	<u>0.2</u>	<u>(1.5)</u>	<u>-0.2</u>	<u>1,553.0</u>	<u>1,559.0</u>	<u>-6.0</u>

Numbers are rounded to the nearest \$0.1M.



Planned Activities

Next 6 months

100-HR-3

- Submit Draft A, 100 D and H Area RI/FS report and Proposed Plan.
- Continue DX and HX Pump and Treat operations.

100-KR-4

- Submit Rev 0, 100 K Area RI/FS report and Proposed Plan.

100-BC-5

- Submit Draft A, 100 B and C Area RI/FS report and Proposed Plan.

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

- Continue ZP-1 interim pump and treat operations and PW-1 SVE operations.
- Complete simulator-based training program and begin training NCOs on new treatment facility.
- Complete individual acceptance tests and integrated system acceptance test on 200 West pump and treat system



Planned Activities

Next 6 months

200-IS-1

- Submit the Draft A, 200-IS-1 RI/FS Work Plan

200-WA-1

- Submit the Draft A, 200-WA-1 RI/FS Work Plan

200-SW-2

- Submit the Draft A, 200-SW-2 RI/FS Work Plan

300-FF-2/5

- Submit the Draft A, 300-FF-2/5 RI/FS report and Proposed Plan

TSD Closure Plan – Hexone Storage and Treatment Facility

- Resolve Ecology comments on the Plan



Slide 18

b1f12

these changes are consistent with how similar work is presented on the previous page
bryan.foley, 10/11/2011