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River Corridor/Central Plateau  
Tri-Party Agreement Milestone Review  
Meeting Minutes  
December 11, 2014

Approval: [Signature]  
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*Ecology IAMIT Representative*

Date: 1/30/15

Approval: [Signature]  
**R. J. Corey**  
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Date: 1/28/15

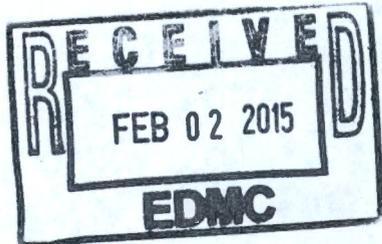
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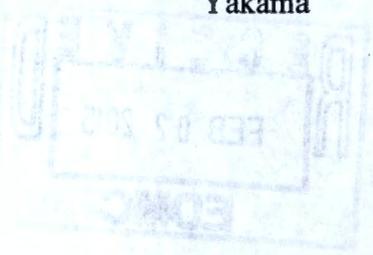
Date: 1-14-15



100-NR-2 200-WA-1  
200-DV-1 200-ZP-1  
200-IS-1  
200-UP-1

Blackburn, J. E.*	WCH	Korenkiewicz, S.L.*	RL
Bohnee, G.	NPT	Knox, K.E.*	KCR
Bond, F.W.	Ecology	Konzek, G. R.*	RL
Borghese, J. V.*	CHPRC	Lobos, R.A.	EPA
Boyd, A.	Ecology	Long, R.L.	RL
Brown, M.J.*	Ecology	Lowe, S.	Ecology
Butler, D.H.	MSA	Louie, C. S.	RL
Cameron, C.E.	EPA	Lynch, J.J.	ORP
Charboneau, B.L.*	RL	McKenna M. C.	MSA
Cimon, S.*	ODE	McKarns, A.C.	RL
Cline, M.W.	RL	Menard, N.M.*	Ecology
Collins, M.S.*	RL	Morse J.G.	RL
Corey R. J.	RL	Nielson, R. J.*	WCH
Cox, W.G.	CHPRC	Niles, K.	ODE
Dagan, E. D.*	DOE	Neugarah, A.*	CTUIR
Dittmer, L.M.*	CHPRC	Ortiz, S.M.	RL
Dover G.L.*	WCH	Peschong, J.C.	RL
Eberlein E.	Ecology	Piippo, R.E.*	MSA
Einan, D.R.	EPA	Price, J.B.	Ecology
Ellison, B.A.	RL	Quintero, R. A.	RL
Farabee, O.A.	RL	Sax, S.M.*	WCH
Faulk, D.A.*	EPA	Singleton, D.G.	Ecology
Foley, B. L.	RL	Skinnarland, E.R.*	Ecology
French, M.S.*	RL	Smith, S. C.	DOE
Fletcher, T. W.	ORP	Teimouri, A.E.	HQ
Gent, P.	Ecology	Teynor, T.K.	RL
Glossbrener, E. T.	DOE	Turner, M. J.*	MSA
Goswami, D.	Ecology	Vannah, B. W.*	RL
Harris, S.	CTUIR	Varljen, R.	Ecology
Heather, J.	Ecology	Ware, N.	Ecology
Hedges, J.*	Ecology	Welsch, K.R.*	Ecology
Hildebrand, D. R.	RL	Whalen, C.	Ecology
Henry, D.	ODE	Williamson, R.U.	WCH
Howell, T. Q.*	WCH		
Jentzen, B.K.	Ecology	Administrative Record	
Jim, R.	Yakama		

\*Attendees



**Key Documents List:** DOE-RL provided an updated key documents list, and stated that questions on individual documents will be addressed in the context of the upcoming presentations.

### **River Corridor Closure Project - Milestones M-16/M-89//M-94**

Quarterly Summary (July – September 2014) – DOE-RL reported that one milestone was completed during the quarter (M-89-06-T01) to submit the 30 percent design for the closure of the mixed waste units in the 324 hot cells. DOE-RL noted that the 60 percent design is in WCH review and comment resolution.

#### Milestone Status:

M-16-149 - DOE-RL stated that this milestone is at risk. DOE-RL reported that 31 of 36 waste sites have been completed, and the remaining five waste sites are still held up in the cultural review process. DOE-RL plans to submit a milestone change package to EPA by tomorrow (12/12/14) to move the five remaining waste sites to 2017. EPA stated that the change package will be rejected, and advised DOE-RL to send the 110-day notification letter instead of sending the change package. EPA noted that it will not be open to any changes to the TPA until DOE-RL agrees to schedule discussions. EPA stated that an understanding is needed about DOE-RL's path forward to break the hold-up on the cultural reviews and a justification for the amount of time it is taking.

M-16-159 – DOE-RL stated that this milestone is on schedule to be met. Ecology asked if any waste sites in 100-D or 100-H are affected by the cultural issues. DOE-RL responded that there is one cemetery site in 100-H, but the milestone is not due until 2016.

M-94-10 – DOE-RL reported that this milestone is on schedule to be met by September 30, 2015, and the remaining work is to complete the D4 activities associated with the 309 test reactor. DOE-RL noted that the 309 reactor has been removed, and the below-grade structure needs to be removed. DOE-RL stated that WCH is doing core sampling of the concrete, and the work should be finished this spring.

#### Significant Accomplishments - For Last 3 Months:

M-94 – DOE-RL noted that the 310 tank demolition was completed, and PNNL is now collecting and handling all of its water discharge from the 325 facility, which had kept the 310 tank operational.

ERDF – DOE-RL reported that about 1.1 million tons of waste were disposed of in ERDF in FY14, which was more than had been anticipated. DOE-RL indicated that so far in FY15, the disposal rate is at 200,000 tons, which is higher than expected. DOE-RL stated that a safety item is being installed on the truck containers at ERDF to keep the cables from going slack.

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

ERDF – DOE-RL stated that efforts will continue to obtain approval for the macro-encapsulation waiver and being able to grout waste in ERDF again. DOE-RL noted that a meeting is scheduled next week with EPA, and WCH will present results of the risk associated with grouting.

## RCC Issues:

M-16-149 - Obtaining Cultural Clearance – DOE-RL noted that this was already discussed, and that efforts continue to resolve the issue. DOE-RL stated that some of the sites pose minor risks, and suggested considering the risk of no action on some of the sites to close them out. EPA stated that DOE-RL should not have to be spending the amount of time it has on the cultural resource issue, and that the basic premise of CERCLA sites is so that DOE-RL does not get held up by the administrative processes.

## **Hanford 100-K Remediation - M-016 and M-093 TPA Milestones**

### Accomplishments – 4th Quarter 2014:

Sludge Treatment Project Phase 1 - Removal of Containerized Sludge - DOE-RL noted that milestone M-016-175 to begin sludge removal from the 105-KW fuel storage basin by September 30, 2014 was missed, and it is in dispute with EPA on the milestone. DOE-RL stated that a statement of dispute was submitted to EPA at the Inter-Agency Management Integration Team (IAMIT) meeting last week on December 3, 2014, and the dispute is at the IAMIT level for resolution. The topic will be discussed at the IAMIT meeting scheduled January 9, 2015. Ecology stated that a copy of the dispute proposal has not been received. Ecology noted that the letter was received, but not the attachments. DOE-RL responded that a copy of the dispute proposal will be provided to Ecology. EPA requested moving the January 9, 2015 IAMIT meeting back a day to January 8, 2015.

DOE-RL stated that the final FY15 budget is expected to pass in Congress this week, and the understanding is that the sludge project will be fully funded in FY15, which would be a positive outcome for sludge treatment. DOE-RL added that the sludge treatment project is expected to be formally established as a capital asset project and as part of the budget resolution, which would require the sludge project to become fully compliant with departmental directives for capital asset projects. DOE-RL indicated that external reviews, such as an independent cost review and a baseline validation review, will likely occur through the rest of FY15. DOE-RL noted that with sludge treatment as a capital asset project, the money has to be used for the line item and cannot be spent on any other project. DOE-RL added that there will be expense funding to support the sludge treatment project, such as doing T Plant modifications for receipt of the sludge.

DOE-RL reported that the annex shell was completed in early October 2014, which included the four walls, the roof, and all of the doors.

DOE-RL reported on the in-basin construction work at K West Basin. As part of the plan for sludge removal, the lids will be removed from the Engineered Containers (ECs) that the sludge sits in, and the lids will be replaced with a different type of lid that will make it easier to operate the sludge mobilization tool when sludge removal is initiated. A demonstration of the lid removal was completed at the Maintenance and Storage Facility (MASF).

Sludge Treatment Project - Engineered Container Retrieval and Transfer System (ECRTS) – DOE-RL reported that the fabrication contract was awarded for the Sludge Transportation and

Storage Containers (STSCs) to ABW, located in the Seattle area. DOE-RL noted that ABW is an NQA-1 shop, and the work will be NQA-1 work. DOE-RL stated that it is in various stages of procurement contracts, and all of the procurements will be at least initiated this fiscal year. The equipment procurements were broken up into about 20 difference packages, and a total of six or seven packages have been awarded so far.

100K Waste Sites – DOE-RL reported that work planning was completed for the 100KE characterization wells, which are sometimes called the KE boreholes, and some earth movement was initiated last month to set up a drilling pad area. DOE-RL stated that a temporary enclosure will be set up that will be used to process the soil samples as they are pulled from the ground. Work on the temporary enclosure should be initiated this month, and drilling on the mockup borehole is planned to start in January 2015.

Milestone Status – DOE-RL stated that M-016-173, which is the Phase 2 milestone for sludge treatment, is at risk to meeting the March 31, 2015 due date. DOE-RL added that a change request proposing a new date for the milestone is to be submitted by tomorrow to EPA. DOE-RL noted that there is no change to the status of the other milestones listed. EPA stated that when DOE-RL provides notification that a milestone is to be missed, such as M-016-175, all of the milestones that are at risk should be identified in the notification. DOE-RL responded that it is in the process of drafting a notification letter that provides a status for all of the milestones. DOE-RL stated that the at-risk milestones were referenced in the statement of dispute that was submitted to the IAMIT regarding M-016-175, and a change package was submitted that listed all of the at-risk milestones. EPA stated that the first notification should have been all-inclusive so that the Tri-Parties don't go through the notification process for every milestone. DOE-RL noted that there are no other milestones directly affected by M-016-173 since the purpose of the milestone is to establish additional interim milestones to complete Phase 2 of the sludge treatment project. EPA responded that another way DOE-RL could view the milestone is to look at the ROD requirements. DOE-RL stated that there are two factors converging that point to the same direction: increased Headquarters' involvement, which requires future planning to get HQ involvement, and the request for an all-inclusive milestone package, which is being prepared. EPA noted that to solve the dispute, a new schedule with milestones will be needed.

#### Planned Activities October 2014 – March 2015:

Engineered Container Retrieval and Transfer System (ECRTS) - DOE-RL noted that it is on track to approve the update to the Preliminary Documented Safety Analysis (PDSA) to implement its nuclear safety initiatives. DOE-RL stated that the most significant nuclear safety initiative will allow sludge blending, or layering, in the STSCs, which will reduce the number of STSCs needed to remove the sludge and reduce the procurement and operating costs.

Sludge Treatment Project – DOE-RL addressed the last bullet on slide ten of today's handout, which is to identify a path forward for environmental documentation for sludge storage at T Plant. DOE-RL stated that this topic was raised during the last quarterly milestone review meeting in October 2014, and a meeting was held in November 2014 with Ecology and EPA to discuss regulatory issues associated with sludge storage at T Plant. During the meeting there were four areas identified that the Tri-Parties needed to better define and determine the path forward: 1) permit modifications for the dangerous waste RCRA permit at T Plant; 2) an issue related to

updating the CERCLA ROD; 3) an issue related to a CERCLA offsite determination; 4) questions regarding applicable TSCA requirements for sludge storage at T Plant.

The Tri-Parties have agreed to schedule another meeting in January 2015 to further discuss the four above-mentioned topics in more detail. DOE-RL stated that about two weeks ago, a tour was conducted for Ecology and EPA to observe a mockup of the sludge removal system at the MASF facility. DOE-RL noted that a tentative field execution schedule has been drafted (see slide 11) related to the general topic of sludge storage at T Plant, which only covers the RCRA permit modification piece and not the other topics mentioned above. DOE-RL stated that as the activities are better defined, they will be added, as necessary, to the working schedule. EPA indicated that it was a positive step that DOE-RL has a schedule. Ecology inquired about the offsite waste determination. EPA stated that it is because the sludge is being sent to T Plant.

### **Hanford Lifecycle Scope, Schedule, Cost Report - TPA Milestone M-036-01E**

DOE-RL reported that the annual lifecycle report is on schedule for submittal on or before January 31, 2015. DOE-RL stated that it has been working closely with both ORP and RL offices to ensure the lifecycle report reflects the most accurate and up-to-date information.

### **PFP Closure Project - TPA Milestone M-083**

Milestone Summary - DOE-RL reported that it is starting to revisit the surveillance and maintenance plan associated with M-083-24-T01, and there are no identified schedule issues. DOE-RL stated that the remaining two milestones are at risk, and that Ecology sent an email requesting information regarding milestone M-083-00A, due September 30, 2016. DOE-RL noted that during last quarter's presentation, the field execution schedule (FES) identified January 2017 as the date for completing the milestone. DOE-RL stated that by the end of the fourth quarter of 2014, the FES brought the date to December 2016, which reflects that the schedule is trending in the right direction and the schedule could improve even further. DOE-RL pointed out that the Plutonium Reclamation Facility (PRF) is on the critical path, and the contractor has had good success with some of the pencil tank production schedule in PRF.

Accomplishments 4th Quarter FY 2014 – DOE-RL reported that entries into the 242-Z facility (McCluskey room) continued in the fourth quarter of 2014, and the safe entry was facilitated by use of the new PremAire breathing suits and ventilation modifications. DOE-RL noted that the ventilation return was going towards the workers and the support crews, and it was relocated to go in the opposite direction and to also increase the air flow. DOE-RL stated that it was a significant modification, and it worked to the degree as planned by improving the ventilation flow and keeping the radioactive particulates down.

DOE-RL stated that the E4 ventilation is the highest concentrated return path for the radiological materials from the gloveboxes, and every time an E4 separation is done, it represents major progress with the gloveboxes. DOE-RL reported that during the first quarter of FY15, the last glovebox was removed from E4 in the 234-5Z facility. DOE-RL stated that after the gloveboxes are removed from E4, the next step will be to move into the duct level to remove the contaminated parts.

DOE-RL noted that the south canyon airlock in PRF (236-Z) has not been utilized for over ten years, and it will be a significant effort to reactivate the area. The south canyon airlock will be used to remove non-pencil tank equipment, and worker entries will be done to do the main canyon decommissioning and decontamination efforts.

Project Baseline Performance - DOE-RL indicated that negative schedule and cost variances increased from the third quarter to the fourth quarter. DOE-RL noted that there are areas with the gloveboxes and other activities that cause the facility to take extreme cautions. DOE-RL stated that there are times that a stop-work is needed, based on feedback from the workers, and the work package and the sequence have to be readdressed. The additional difficulty with the work causes schedule delays and additional cost. DOE-RL added that PFP is still operating as a nuclear facility, and it is an antiquated facility that has increasing operational and maintenance costs.

Issues/Challenges - DOE-RL stated that the Documented Safety Analysis (DSA) has been updated twice this past year. One of the fans in the exhaust fan house self-destructed due to an imbalance, and a DSA change was needed for the maintenance of the ventilation for operation of the facility. The second DSA update being done will address the controls and identify the hazards associated with the decommissioning phase. DOE-RL stated that the hazards analysis are just now being completed by the contractor and will be submitted to DOE-RL by the first part of January 2015. DOE-RL stated that this update is referred to as DSA Rev. 12, and it is believed Rev. 12 will be the last safety analysis that will need to be performed between now and slab-on-grade. DOE-RL noted that Rev. 12 has the sequence of events for shutting off the safety ventilation flow, the criticality alarms and the fire suppression systems. DSA Rev. 12 documents the points in time when the material at risk (MAR) can be cleaned up and what other controls have to be substituted for the more significant controls currently in place. DOE-RL stated that Rev. 12 has been a very challenging DSA to write, and it has had high visibility, including a week-long meeting in November 2014 with the Defense Nuclear Facilities Safety Board (DNFSB).

DOE-RL stated that the contractor has done a good job of optimizing the work crews, which has improved the schedule with the pencil tanks. DOE-RL noted that the pencil tanks and the miscellaneous treatment glovebox removal are a great example of the work crew realignment. DOE-RL added that all of the miscellaneous treatment gloveboxes have been removed from their E4 in PRF, which will be reported next quarter.

DOE-RL reported on the foam initiative for the high gram gloveboxes in 234-5Z. A mockup was conducted on at least two gloveboxes using different blending materials, and it was determined that the foam would not work. Efforts have turned towards plan B, which is a more intrusive size-reduction, and cuts will be done on the gloveboxes in-situ. DOE-RL noted that it is fortunate that the workers already have experience with the new PremAire breathing suits, and having the suits available will be advantageous in regards to the additional potential hazards with the in-situ size-reduction. DOE-RL added that the procurement of two additional breathing air compressors will support the in-situ size reduction.

Planned Activities October 2014 – March 2015 - DOE-RL noted that door 107 is located on the east side of the duct level in 234-5Z, and the door will be widened to allow removal of piping, etc., from the duct level in a flange-to-flange configuration instead of cutting one- or two-foot slices.

DOE-RL stated that the flange-to-flange removal has been plotted out, and it will lower the size-reducing to a minute amount. DOE-RL noted that the large pieces will still fit in solid waste boxes. Oregon Department of Energy (ODOE) asked about the average size of the flange-to-flange pieces. DOE-RL responded that some of the pieces are nine feet and the solid waste boxes are eight feet, so the average size would be smaller than eight feet. DOE-RL reported that work is being planned with the safety department to push a hole into the west side of the 234-5Z facility and lower the cement material down to the first floor.

DOE-RL stated that removal of the duct level hazardous material in 234-5Z will involve asbestos abatement before removing the cement. DOE-RL indicated that the work crews have become proficient in working together, and are gaining momentum in terms of working in the duct area, which is very congested.

DOE-RL stated that one of the two gloveboxes in 242-Z is referred to as WT3, which is currently being size-reduced. WT3 is across from the glovebox referred to as WT2, which had the americium explosion. The purpose of starting on WT3 is to give the workers some experience working on a less hazardous glovebox before moving to WT2.

PPF Timeline – DOE-RL stated that one of the phasing approaches that was changed in the schedule, which affects milestone M-083-00A, is associated with the selective removal of the larger gloveboxes before initiating the controlled demolition of the facilities. DOE-RL noted that the schedule sequence for starting demolition in the spring of 2016 may change. The May 2016 demolition of 291-Z may end up being the last demolition on the schedule since it is the ventilation facility and a ventilation modification may be needed. DOE-RL stated that if all of the safety significant systems can be isolated from 234-5Z and 242-Z, then some parallel work could be done in 236-Z, eventually working into 236-Z if its own ventilation, fire protection system and criticality control are provided. DOE-RL added that as the more detailed planning is being done, the intent is to load out the rubble debris each day to reduce the amount of rubble that can disperse the contaminants.

### **M-091/M-026 TPA Quarterly Milestone Review**

Accomplishments – DOE-RL reported that responses were provided to Ecology's draft comments on the 2013 calendar year project management plan (PMP), and DOE-RL is waiting on a response from Ecology. DOE-RL noted that the usual process will be followed, leading to the eventual approval of the annual PMP.

DOE-RL stated that a version of the 2013 calendar year Land Disposal Restrictions (LDR) report was submitted with Ecology's comments incorporated. DOE-RL noted that the original submittal in October or November 2014 was missing the last six pages, and a full copy was delivered to Ecology yesterday (12/10/14).

DOE-RL reported that M-091-44S was met to certify 300 cubic meters of transuranic mixed waste. DOE-RL noted that the milestone was due in 2018, and it is one success story in light of the M-091 milestones that are at risk or have been missed due to a lack of funding. DOE-RL stated that it is 52 cubic meters beyond the 300 cubic meters, and a fiberglass reinforced plywood box (FRP) is

being loaded this week, with the intent to ship it next week to Permafix Northwest. DOE-RL stated that a schedule has been lined out for loading boxes that are located in outdoor storage area A and drums of concern in CWC buildings. DOE-RL noted that funding is still an issue for FY15.

DOE-RL reported that there are plans to overpack the 231ZDR-11 concrete box next week into a transportable package. DOE-RL noted that 231ZDR-11 falls under M-091-44S, and the box was identified to be dispositioned under the Agreed Order with Ecology that was signed January 24, 2014.

Milestone Status - DOE-RL stated that most of the M-091 milestones are to be missed, except for M-091-44 and M-091-03. DOE-RL noted that a table was provided today with the milestone status from the last project managers meeting held December 4, 2014.

Project Baseline Performance – DOE-RL stated that most of the variances are the result of previous years' activities.

Actions Planned for Next Six Months – DOE-RL reported that if plans go accordingly, there will be some repackaging of the M-091-46 waste. Ecology stated that the Tri-Parties are at a decision point regarding the LDR report, the M-091 PMP, and a schedule for the CERCLA decisions in terms of establishing schedules for permits. Ecology suggested that the Tri-Parties start meeting in the next couple months to discuss topics like the LDR report, the M-091 PMP, the Hanford Site's compliance with the Federal Facilities Compliance Act, the K Basin sludge and T Plant. DOE-RL acknowledged Ecology's concern, and stated that a kick-off meeting is scheduled later today that will lead to some of the discussions Ecology referred to. Ecology stated that schedules aren't enforceable, but they are needed to be able to complete work on the permitting side. DOE-RL stated that it committed to established milestones, but going forward it will be difficult with uncertain funding profiles.

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

Milestone Status – Ecology noted that either the M-037-02 or -03 milestone status is complete to submit closure plans, but there are no acceptable closure plans because the notice of deficiency (NOD) process has been on hold for some time to resolve comments. Ecology added that it has not been able to get DOE-RL to re-engage on completing the closure plans. CHPRC responded that the scope of the milestone is to submit the closure plans, and there is no milestone for reaching agreement on the closure plans. DOE-RL clarified that the issue is getting through the NOD process and completing the closure plans. Ecology agreed with DOE-RL's comment. DOE-RL will follow up with Ecology's issue regarding the NOD process for the closure plans.

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

Accomplishments – (4th Quarter 2014) - DOE-RL reported that the groundwater sampling and analysis plan (SAP) optimization plan was completed to get about 60 to 70 SAPs consolidated down and aligned with the current work. DOE-RL stated that the optimization plan lays out the schedule for review of the SAPs that will come up in the future. Ecology requested a copy of the

SAP optimization plan. DOE-RL agreed to provide Ecology both the schedule and the SAP optimization plan. Ecology noted that several SAPs have been submitted that have been revised and modified, and there is no way to know what has been revised since there has been no review by Ecology. DOE-RL responded that a SAP review panel has been set up, and Ecology and EPA are included on the panel. DOE-RL noted that the first one or two reviews did not include Ecology and EPA, and the error was recognized and corrected to include the regulators. Ecology asked which regulators were included. DOE-RL will follow up with Ecology's question and provide the information.

DOE-RL stated that the 2013 annual groundwater report was issued, and it's now a web-based tool. Ecology stated that a request has come through to release the annual groundwater report earlier, especially since it's web-based. Ecology noted that when PNNL issued the report, it was usually received in March, and the report was received in October 2014. DOE-RL stated that the cut-off date for the sampling data used to be September 30, and it has been extended to December 31. DOE-RL agreed that nine months is too long for Ecology to receive the report and will follow up with Ecology's request.

River Corridor - DOE-RL stated that the 100-F/IU ROD was completed and it is waiting for Ecology approval. Ecology responded that DOE-RL should receive approval in about a week. Ecology noted that the delay was partially due to its legal review. DOE-RL stated that the 300 Area RD/RA work plan is awaiting EPA approval. EPA responded that approval will be deferred at the request of the attorneys until an initial meeting with the Yakama Nation is held. EPA stated that when approval is forthcoming, a draft change package will be transmitted to DOE-RL, and it will be up to DOE-RL to sign the change package or dispute it. EPA noted that the change package will contain two milestones to initiate the polyphosphate injections, and then complete the work and make a recommendation for phase 2. EPA added that in consultation with the attorneys, there is no work that is being delayed by not approving the RD/RA work plan, and if there is an issue brought up by the Yakamas, there would be an opportunity to incorporate it into the work plan. DOE-RL noted that the first test injections are scheduled for the summer of 2015, and asked if the work would be approved and allowed to go forward. EPA responded that a meeting with the Yakamas is scheduled for January 2015, and indicated that DOE-RL would be able to start the work.

#### Milestone Summary:

M-015-112 – DOE-RL stated that the 200-IS-1 work plan is in dispute resolution, and the dispute was extended to January 30, 2015. DOE-RL indicated that feedback from Ecology's legal review is anticipated by December 15, 2014. Ecology responded that the feedback is tentatively expected by December 15. Ecology added that a meeting is scheduled next week with DOE-RL to discuss the schedule for the work plan and then moving forward with establishing a schedule.

M-015-21A – DOE-RL reported that the RI for 200-BP-5 is being worked, but the FS will not be done to meet the milestone. DOE-RL stated that this milestone is to be missed and will be included in the notification letter to Ecology and EPA regarding the status of milestones. Ecology asked when the notification letter will be transmitted. DOE-RL responded that the letter is being worked on, but a transmittal date could not be provided. DOE-RL added that the intent of the

letter is to be all-inclusive of the milestones and to not piecemeal the information. DOE-RL noted that the status of milestones M-015-21A, M-015-92A and M-015-110B will be included in the notification letter as to be missed.

M-015-92B – DOE-RL noted that there has been discussion about splitting 200-EA-1 and 200-IS-1, and it is not working on EA-1. DOE-RL stated there is a legal question about splitting one milestone into two milestones, and that legal had informed DOE-RL that it could not sign up to any new commitments. DOE-RL indicated that the issue is being discussed with legal. Ecology stated that it had requested splitting the two because it doesn't make sense to hook 200-IS-1 and 200-EA-1 together.

M-015-93B – DOE-RL stated that there is no feasibility plan for 200-SW-2, and there is no date for submittal of the work plan. DOE-RL noted that it will take about two to three years to do the characterization and collect the data, and probably one to two years to evaluate and produce the report.

M-016-125 – DOE-RL stated that the RD/RA work plan for 200-PW-1/3/6 is on schedule. EPA indicated that it may ask for a milestone to set a schedule, push the work out around 2020, and then negotiate a schedule once it is better understood when Hanford will get in the WIPP queue.

M-016-190 – DOE-RL noted that this milestone covers 200-UP-1 uranium extraction wells and three iodine containment wells. DOE-RL stated that work is under way to finish off a casing and developing the wells. The location for the iodine wells has been identified, and the wells will be initiated in the next few months.

M-016-110-T03 – DOE-RL stated that the apatite barrier has not been installed due to some cultural issues, and efforts are under way to resolve the issues with a Memorandum of Understanding (MOU). Ecology inquired about the projection for installing the apatite barrier. DOE-RL responded that a projection could not be given at this time. DOE-RL noted that the work was funded for summer 2014, and the skids and the equipment were brought out and efforts were moving forward when the tribes claimed the area as sensitive. DOE-RL stated that a mitigation plan is needed, and it calls for about \$3 million worth of field activities, including additional native seed for the tribes to plant, that are not related to DOE-RL activities. DOE-RL noted that the mitigation plan is specifically for the impact of putting in a skid and injection of the chemical. DOE-RL stated that the issue is being discussed internally. DOE-RL noted that as soon as the barrier installation missed its window, the work was put into a prioritization, and it is not currently funded. DOE-RL added that until agreement is reached on a mitigation plan, the work can't be put in the queue to compete for funding. EPA pointed out that DOE-RL's approval is from EPA and Ecology, and approval is not needed from other agencies. EPA added that the work is being done under CERCLA so that DOE-RL doesn't get delayed by administrative issues. DOE-RL responded that there is a DOE order that goes beyond a policy, and the order talks about tribal interfaces and seeking consultation and consensus from the tribal nations that might be affected. DOE-RL stated that if consensus is not reached with the tribes, the Secretary of Energy has to override the dispute.

EPA acknowledged DOE-RL's order regarding the tribes and the need for consultation, and stated that there is a problem when it affects the ability to protect the environment. DOE-RL stated that the issue is still being worked, and there is no indication that the work won't go forward. Ecology offered assistance if DOE-RL is moving forward but is not able to meet the required water level timeline. Ecology noted that the state of Washington has a close relationship with the tribal nations, but agreed with EPA's position that allowing environmental insult to occur is an issue. Oregon Department of Energy (ODOE) asked if there is a date for ending the consultation with the tribes. DOE-RL responded that it was not aware of a date. DOE-RL added that this issue has raised other issues when the barrier work was stopped, and there have been inquiries about the marginal benefit of expanding the 900-foot barrier to a 2,500-foot barrier, which is being added to the feasibility study. EPA and Ecology expressed disappointment with the delay in expansion of the barrier.

M-016-110-T04 – DOE-RL stated that this milestone is to implement actions in all the 100 Area RODs, and it will implement all the actions that have RODs. DOE-RL noted that there is not a final ROD for BC and K Areas, and if a final ROD is not done by 2016, then interim actions will be implemented. EPA stated that a final ROD won't be done by 2016, and estimated that the BC ROD will be final in 2018 and the K ROD in 2019. DOE-RL stated that in the meantime, it will consider the milestone complete by implementing the interim actions.

M-037-11 – DOE-RL stated that it does not have approved plans for 216-B-3 and 216-S-10, although it is working through the plans.

#### Planned Activities – 6 Month Look Ahead:

Central Plateau - DOE-RL noted that drilling has been completed for the UP-1 wells, and work is under way on the pipelines at the 200 West facility. DOE-RL stated that it is planning to submit the two RI/FS work plans for 200-DV-1 and 200-SW-2.

River Corridor – DOE-RL stated that the RD/RA work plan needs to be completed before initiating the 300 Area remedial action. DOE-RL noted that the borehole work at 100-K is funded by RL-41, and it is under way. Ecology stated that the RI/FS is completed and Rev. 0 has been issued (October 1, 2014) for the 100-D/H RI/FS, and it's just the proposed plan that needs to be done.



**River Corridor/Central Plateau Milestone Review**  
**December 11, 2014**  
**AGENDA**

Chairperson: J. Hedges

<b>Time</b>	<b>Milestones</b>	<b>Subject</b>	<b>DOE Presenter</b>
8:30 a. m.		RL Key Documents List	Ray Corey
8:35 a.m.	M-16, 89, 93 and 94	River Corridor Closure	Mark French
8:50 a.m.	M-16 and 93	100 K Remediation	Roger Quintero
9:05 a.m.	M-36	Life Cycle Report	Stephen Korenkiewicz
9:10 a.m.	M-83	PFP Transition	Bryan Foley
9:30 a.m.	M-26	Land Disposal Restrictions Report	Mike Collins
9:35 a.m.	M-91	Acquisition of Facilities to TSD TRU/TRUM and LLMW	Mike Collins
9:40 a.m.	M-16 and 85	Central Plateau Remediation	Al Farabee
9:45 a.m.	M-15, 16, 24, 37 and 85	Soil and Groundwater Remediation	Mike Cline
10:05 a.m.	Adjourn Milestone Review		





# Soil and Groundwater Remediation Project Milestone Review

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



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

Fourth Quarter FY2014  
December 11, 2014

**CH2MHILL**  
Plateau Remediation Company

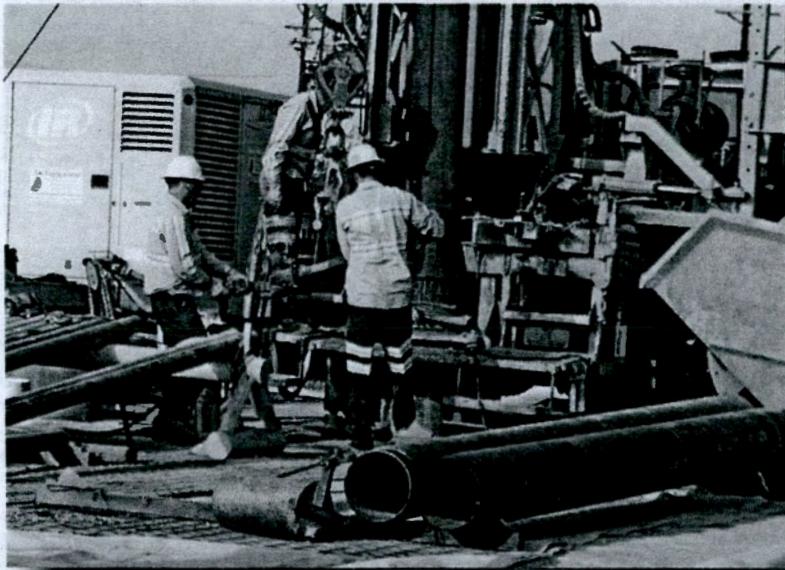


# Accomplishments – 4<sup>th</sup> Quarter 2014



## General

- Completed TPA Target Date M-024-65-T01 (July 30, 2014)
- Completed Pump & Treat FY2014 Optimization Scope
- Issued Groundwater Sampling and Analysis Plan (SAP) Optimization Plan
- Issued CY2013 Annual Groundwater Report (web based)



*Constructing new 200-UP-1 Uranium Extraction Well.*

## Central Plateau

- Issued CY2013 Annual 200-ZP-1 and 200-UP-1 P&T Report
- Completed 90% Balance of Plant (BOP) design for uranium extraction and treatment system and initiated construction activities
- Revised 200 West P&T Operations and Maintenance Plan, incorporating uranium system

# Accomplishments – 4<sup>th</sup> Quarter 2014



## River Corridor

- Completed Key Regulatory Decision Documents
  - 100-F/IU ROD (need Ecology approval)
  - 100-HR-3 RI/FS
  - 100-NR-2 Interim Remedial Design/Remedial Action (RD/RA) Work Plan (WP)
  - 300 Area Integrated RD/RA WP (need EPA approval)
- Provided 100-D waste site characterization and preliminary remediation recommendations
- Issued CY2013 Annual River Corridor P&T Report



*Completing electrical connections for new wells at the 100-DX Pump-and-Treat.*

# Milestone Summary Through December 2016



TPA Number	Milestone or Target Date	Description	Status
M-015-00	12/31/16	Complete The RI/FS (Or RFI/CMS and RI/FS) process for all non-tank farm operable units except for canyon/associated past practice waste site OUs covered in M-85-00.	At Risk
M-015-112	2/28/14	Submit Draft B 200-IS-1 RFI/CMS/RI/FS Work Plan to Ecology with Schedule Dates	Dispute Resolution
M-015-110A	3/31/15	Submit RCRA FI/CMS & RI/FS Work Plan for 200-DV-1 OU	On Schedule
M-015-113	3/31/15	Submit Draft B 200-SW-2 RFI/CMS/RI/FS Work Plan to Ecology Including Schedule	On Schedule
M-015-21A	6/30/15	Submit 200-BP-5 and 200-PO-1 OU FS Report & PP(s) to Ecology	To Be Missed
M-015-92A	6/30/15	Submit RCRA FI/CMS & RI/FS Work Plan for 200-EA-1 OU to Ecology	To Be Missed
M-015-110B	9/30/15	Submit CMS & FS & Proposed Plan/CA Decision for 200-DV-1 OU	To Be Missed
M-015-38B	10/30/15	Submit Rev'd FS Report & Rev'd PP for CW-1, CW-3 & OA-1 to EPA (submit schedule)	On Schedule
M-015-91B	12/31/15	Submit FS Report & Proposed Plan for the 200-BC-1/200 -WA-1 OU	To Be Missed
M-015-78	2/28/16	Complete 2 Yrs of GW and Aquifer Tube Sampling at 100-BC Expanded Monitoring Network	On Schedule
M-015-79	12/15/16	Submit CERCLA Remedial Investigation/Feasibility Study Report & Proposed Plan for 100-BC-1/2/5	On Schedule
M-015-92B	12/31/16	Submit CMS & FS Reports & Proposed CA Decision/PP for 200-EA-1 & 200-IS-1	At Risk
M-015-93B	12/31/16	Submit RCRA FI/CMS & RI/FS Report & Proposed CA Decision/PP for 200-SW-2	At Risk
M-016-00	9/30/24	Complete remedial actions for all non-tank farm & non-canyon OUs	At Risk
M-016-125	9/30/15	Submit RD/RA Work Plan to EPA for 200-CW-5 & 200-PW-1/3/6 per ROD	On Schedule
M-016-190	9/30/15	Complete Installation of Wells for U-Plant Area Pump & Treat Per 200-UP-1 RD/RA WP	On Schedule
M-016-110-T05	12/31/15	Implement Sys To Meet Drinking Water Stds. For U at 300-FF-5 OU (or as specified in ROD)	On Schedule
M-016-191	3/30/16	Complete Acceptance/Operation Test Procedures and Initiate Operations of U Plant Area Pump & Treat	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

# Milestone Summary Through December 2016



TPA Number	Milestone or Target Date	Description	Status
<b>M-024-000</b>	<b>TBD</b>	<b>Complete Well Installations with RCRA/CERCLA Requirements</b>	<b>In Program Planning</b>
M-024-58H	6/1/15	Initiate Discussions of Well Commitments	On Schedule
M-024-66-T01	8/1/15	Conclude Discussions of Well Commitments	On Schedule
M-024-66	12/31/15	Complete Construction of All Wells Listed for CY 2015 and Before as Identified in M-24-12-01	On Schedule
M-024-58I	6/1/16	Initiate Discussions of Well Commitments	On Schedule
M-024-67-T01	8/1/16	Conclude Discussions of Well Commitments	On Schedule
M-024-67	12/31/16	Complete Construction of All Wells Listed for CY 2016 and Before as Identified in M-24-13-01	On Schedule
<b>M-037</b>		<b>RCRA Closures</b>	
M-037-11	9/30/16	Complete Closure Requirements for 216-B-3 & 216-S-10	At Risk
<b>M-085-00</b>	<b>TBD</b>	<b>Complete Response Actions for Specified Canyon Fac. &amp; Waste Sites</b>	<b>In Program Planning</b>
M-085-02	9/30/15	Submit Change Package to Establish Schedule for Submittal of RI/FS Work Plans for 200-CB-1, 200-CP-2, and 200-CR-1 OUs and a schedule for submittal of the RAWPs for 224B and 224T Plutonium Concentration Facilities	On Schedule

# Project Baseline Performance

## Contract to date through September 2014



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)
RL-0030.O1 RL 30 Operations	675.8	673.5	652.4	(2.3)	-0.3	21.1	3.1	1,173.6	1,113.5	60.2

Numbers are rounded to the nearest \$0.1M.

# Planned Activities – 6 month look ahead

(October-March 2015)



- **Central Plateau**
  - Initiate BY Cribs characterization planning
  - Complete installation of UP-1 wells
  - Initiate drilling on I-129 wells
  - Continue CERCLA decision documents
    - Submit Two RI/FS work plans
    - Continue work on Two RI/FS work plans
    - Continue work on PW-1/3/6 & CW-5 RD/RA Work Plan
    - Continue work on BP-5 RI with PO-1 update
  
- **River Corridor**
  - Initiate 300 Area remedial action
  - Expand P&T well network (identified in Optimization Plan)
  - Initiate drilling characterization wells at 100-K (RL-41 funded)
  - Continue CERCLA decision documents
    - Complete Draft A 100-F RD/RA Work Plan
    - Complete 100-DH RI/FS and PP
    - Continue 100-N RI/FS



*S&GRP employee unloads acid at the DX Pump-and-Treat facility.*

# 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 FY 2014  
December 11, 2014

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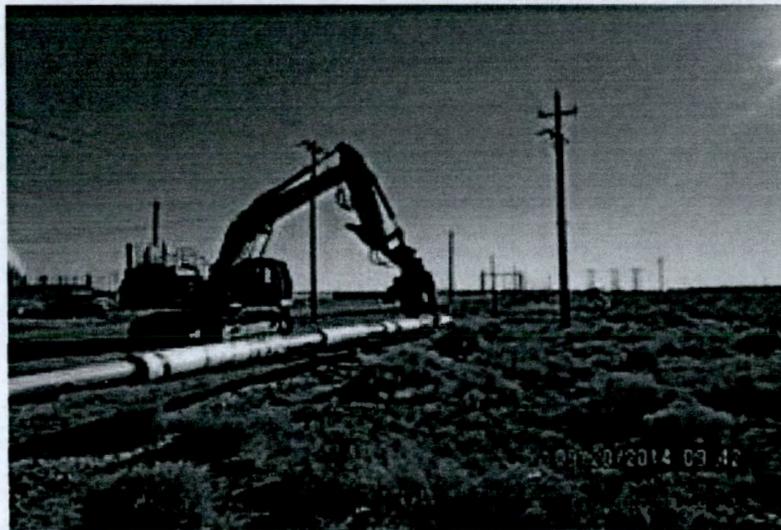
# Accomplishments

## 4<sup>th</sup> Quarter FY 2014



### Minimum Safe/Maintenance Activities

- Continued construction yard demolition – 80% complete
  - 19 of 20 facilities demolished
- Completed ~1,000 linear feet of steam line removal



*Steam line removal*

# Accomplishments

## 4<sup>th</sup> Quarter FY 2014



### **Minimum Safe/Maintenance Activities (cont.)**

- Repaired PUREX (252AB) roof
- Completed 241-CX-70/71/72 Surveillances
- Completed monthly preventive maintenance activities and radiological facility surveillances
- Completed WIDS site housekeeping (weed spraying and hot tumbleweed removal)

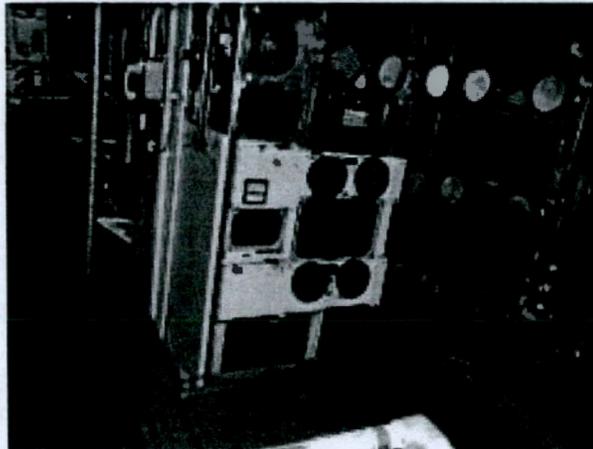
# Accomplishments

## 4<sup>th</sup> Quarter FY 2014



### Minimum Safe/Maintenance Activities (cont.)

- Continued PUREX N-Cell investigative survey work
- Completed B-Plant and PUREX Annual NESHAPS inspections



*PUREX N-Cell*



*NESHAPS Inspection*

# Milestone Status



TPA Number	Milestone Due Date	Milestone Title	Status
<b>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</b>			
M-085-01	9/30/2022	Submit Change Package to establish date for major Milestone M-85-00	ON SCHEDULE
<b>M-016-00 RL 40 – Complete Remedial Actions for all Non-Tank Farm and Non-Canyon Operable Units</b>			
M-016-200A	9/30/17	Complete U Plant Canyon (221-U) Demolition in accordance w/ RD/RAWP	AT RISK
M-016-200B	9/30/2021	Complete U Plant Canyon (221-U) Barrier Construction in accordance w/ the RD/RAWP	AT RISK
<b>M-037 – TSD Closure Activities</b>			
M-037-11	9/30/16	Complete Closure Requirements for 216-B-3 & 216-S-10	AT RISK
M-037-10	9/30/20	Complete Closure Requirements for 207-A S 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

# Project Baseline Performance

Contract to date (through September 2014)



BS 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)
<b>Total</b>	<b>104.0</b>	<b>103.5</b>	<b>91.6</b>	<b>-0.4</b>	<b>-0.4</b>	<b>11.9</b>	<b>11.5</b>	<b>203.1</b>	<b>190.0</b>	<b>13.4</b>

Numbers are rounded to the nearest \$0.1M.

# Planned Activities

*October – March 2015*



- Complete 291-S roof repair
- Complete REDOX roof deficiency repair
- Complete PUREX N-Cell investigation survey work
- Complete repair of priority steam line sections
- Complete Construction Yard Facilities demolition
- Continue surveillance of inactive WIDS sites
- Complete 224-T, U Plant, REDOX, and PUREX Annual Surveillances
- Complete REDOX and PUREX annual stack testing



# Solid Waste Stabilization and Disposition Project RL-0013

## Milestone Review M-091/M-026

December 11, 2014



**EM** Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

[www.em.doe.gov](http://www.em.doe.gov)

## Accomplishments

- M-091-03 – Project Management Plan (PMP) – CY 2013 PMP – DOE provided responses to draft Ecology comments on 10/23/14
- M-026-01 – Land Disposal Restrictions (LDR) Report – CY 2013 LDR Report – DOE provided responses to Ecology comments on 10/17/14
- M-091-44S – Large-Package and Remote Handled Transuranic Mixed (TRUM) Waste
  - 09/30/18 milestone met,
  - 52 cubic meters in excess of the 09/30/18 milestone have been repackaged and certified (per the M-091 milestone definition)



**EM** *Environmental Management*

*safety ❖ performance ❖ cleanup ❖ closure*

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## Milestone Status

- M-091-03 Project Management Plan – Awaiting Ecology response to draft comment resolutions.
- M-091-40 Retrievably Stored Waste (CH) – Complete the retrieval and designation of CH Retrievable Stored Waste in burial grounds by 09/30/16
  - Retrieve 1,250 m<sup>3</sup> by 09/30/15 – No waste will be retrieved in FY 2015
  - There were no substrate sampling and analysis results for July-September 2014
- M-091-41 Retrievably Stored Waste (RH) – Complete non-caisson retrieval by 09/30/16 – No waste to be retrieved in FY 2015
- M-091-42 MLLW (CH, small container) – Complete treatment by 09/30/17
  - No M-091-42 waste to be treated in FY 2015, lack of funding and retrieval
  - 19 m<sup>3</sup> are in aboveground storage



**EM Environmental Management**

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## Milestone Status

- M-091-43 MLLW (RH and large container) – Complete treatment by 09/30/17
  - No M-091-43 waste to be treated in FY 2015, lack of funding and retrieval
  - 66 m<sup>3</sup> are in aboveground storage
- M-091-44S TRUM Waste (RH and large container) – Certify 300 m<sup>3</sup> by 09/30/18
  - 09/30/18 milestone met
  - 52 cubic meters in excess of the 09/30/18 milestone have been repackaged and certified (per the M-091 milestone definition)
  - 6,805 m<sup>3</sup> in aboveground storage
- M-091-46 TRUM waste (CH, small container) – Complete the certification of small CH TRUM waste
  - Little M-091-46 waste to be treated in FY 2015, lack of funding and retrieval
  - 1,949 m<sup>3</sup> are in aboveground storage



**EM Environmental Management**

safety ❖ performance ❖ cleanup ❖ closure

[www.em.doe.gov](http://www.em.doe.gov)

# Department of Energy – Richland Operations Office

## Project Baseline Performance Contract to Date through November 2014

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	57,319.2	57,042.1	55,372.7	-0.5%	2.9%
Waste Receiving and Packaging Facility (WRAP)	35,972.0	35,972.0	37,645.0	0.0%	-4.7%
T Plant	67,067.1	66,770.2	55,165.4	-0.4%	17.4%
MLLW Treatment	43,182.5	43,182.5	37,200.2	0.0%	13.9%
TRU Waste Retrieval	99,991.6	99,991.6	112,263.1	0.0%	-12.3%
TRU Waste Repackaging	49,418.0	50,804.1	49,805.7	2.8%	3.4%
TRU Waste Disposition	30,934.4	30,934.4	22,345.0	0.0%	27.8%
Project Management	102,270.5	102,139.1	92,290.6	-0.1%	9.6%



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## Actions Planned for Next Six Months

- Repackage additional M-091-44 waste
- Continue surveillance and maintenance activities at CWC, WRAP, T Plant, and the LLBGs
- Continue supporting permitting and compliance activities
- CY 2013 PMP – Complete resolution of Ecology comments
- CY 2013 LDR Report – Complete resolution of Ecology comments



**EM Environmental Management**

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[www.em.doe.gov](http://www.em.doe.gov)

PMM Status Summary – November 30, 2014

Milestone	Due Date(s)	Status Summary	Comments
<b>M-091-00:</b> Complete treatment of MLLW and TRUM waste.	TBD		<ul style="list-style-type: none"> <li>Dates to be established pursuant to M-091-44T.</li> </ul>
<b>M-091-01:</b> Complete acquisition of capabilities for treating large-container TRUM waste and remote-handled TRUM waste.	Complete conceptual design and submit milestone change package by 09/30/16 <b>At Risk</b>  Complete definitive design and submit milestone change package by 09/30/18 <b>At Risk</b>	<b>At Risk</b>	
<b>M-091-03:</b> Submit TRUM waste/MLLW PMP	Revision due annually by 06/30.  Submit disposition plans for no path forward waste by 06/30/2011 <b>Complete</b>	FY 14 Submittal <b>Complete</b>	<ul style="list-style-type: none"> <li>DOE provided response to draft Ecology comments on 10/23/14 (14-AMRP-0310).</li> </ul>

Milestone	Due Date(s)	Status Summary	Comments
<b>M-091-40:</b> Retrieve contact-handled retrievably-stored waste	250 m <sup>3</sup> by 09/30/12 (Target Date) <b>Missed</b>  250 m <sup>3</sup> by 09/30/13 (Target Date) <b>Missed</b>  250 m <sup>3</sup> by 09/30/14 (target) <b>Missed</b>  1,250 m <sup>3</sup> by 09/30/15 <b>To Be Missed</b>  Complete by 09/30/16 <b>To Be Missed</b>	FY 15 <b>To Be Missed</b>	<ul style="list-style-type: none"> <li>No funding has been identified to retrieve waste in FY 2015.</li> <li>There were no substrate sampling and analysis results for 07/14-09/14. No funding has been identified to perform sampling and analysis in FY 2015.</li> </ul>
<b>M-091-41:</b> Retrieve remote-handled retrievably stored waste	Complete non-caisson retrieval by 09/30/16 <b>To Be Missed</b>  Complete caisson retrieval by 12/31/18 <b>To Be Missed</b>	<b>To Be Missed</b>	<ul style="list-style-type: none"> <li>No funding has been identified to retrieve waste in FY 2015.</li> </ul>
<b>M-091-42:</b> Treat small-container, contact handled MLLW	Complete treatment by 09/30/17	<b>To Be Missed</b>	<ul style="list-style-type: none"> <li>No funding has been identified to treat waste in FY 2015.</li> <li>19 m<sup>3</sup> are in SWOC storage as of 11/30/14.</li> </ul>

Milestone	Due Date(s)	Status Summary	Comments
<b>M-091-43:</b> Treat large-container MLLW and remote-handled MLLW	Complete treatment by 09/30/17	<b>To Be Missed</b>	<ul style="list-style-type: none"> <li>• No funding has been identified to treat waste in FY 2015.</li> <li>• 66 m<sup>3</sup> are in SWOC storage as of 11/30/14.</li> </ul>
<b>M-091-44:</b> Certify large-container TRUM waste and remote-handled TRUM waste	Certify 300 m <sup>3</sup> by 09/30/16 <b>Complete</b>  Certify 300 m <sup>3</sup> by 09/30/17 <b>Complete</b>  Certify 300 m <sup>3</sup> by 09/30/18 <b>Complete</b>  Submit change package proposing annual certification and shipping milestones to completion by 09/30/18 <b>On Schedule</b>  Complete certification and shipment by 12/31/30 <b>On Schedule</b>	FY 18 M-091-44S <b>Complete</b>	<ul style="list-style-type: none"> <li>• 52 m<sup>3</sup> in excess of the FY 2018 milestone have been repackaged and certified (per the M-091 Milestone certification definition).</li> <li>• 6,805 m<sup>3</sup> were in SWOC storage as of 11/30/14.</li> <li>• TRUM waste certified in lieu of treatment.</li> </ul>

Milestone	Due Date(s)	Status Summary	Comments
<b>M-091-46</b> Certify and ship small-container, contact-handled TRUM waste	Certify 300 m <sup>3</sup> by 09/30/12 (target) <b>Missed</b>	FY 15 <b>To Be Missed</b>	<ul style="list-style-type: none"> <li>• 1,949 m<sup>3</sup> currently in storage at SWOC facilities as of 11/30/14.</li> <li>• TRUM waste certified in lieu of treatment.</li> </ul>
	Certify 125 m <sup>3</sup> by 09/30/13 (target) <b>Missed</b>		
	Certify 125 m <sup>3</sup> by 09/30/14 (target) <b>Missed</b>		
	Certify 250 m <sup>3</sup> by 09/30/15 <b>To Be Missed</b>		
	Certify 250 m <sup>3</sup> by 09/30/16 <b>To Be Missed</b>		
	Complete certification by 09/30/17 <b>To Be Missed</b>		
	Ship 1,000 m <sup>3</sup> by 09/30/11 <b>Complete</b>		
Complete shipment by 09/30/18 <b>At Risk</b>			

<b>Milestone</b>	<b>Due Date(s)</b>	<b>Status Summary</b>	<b>Comments</b>
<b>M-026-01</b> Submit annual Hanford Land Disposal Restrictions (LDR) Report	Submittal due annually by 04/30		<ul style="list-style-type: none"> <li>DOE provided revised CY 2013 report responding to Ecology comments provided on 10/17/14 (15-AMRP-0002).</li> </ul>

# PFP Closure Project

TPA Milestone Series:  
M-083



Tom Teynor, DOE Federal Project Director  
Rick Bond, Ecology Project Manager  
4th Quarter FY14  
December 11, 2014

**CH2MHILL**  
Plateau Remediation Company



U.S. DEPARTMENT OF  
**ENERGY**

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**LEGACY**



# Milestone Summary



TPA Milestone	Due Date	Status	Milestone Description
M-083-24-T01	09/30/16	On Schedule	Submit Rv. 0 of the PFP Complex S&M Plan to Ecology
M-083-44	09/30/15	At Risk	Complete transition of 234-5Z & -ZA, 243-Z, 291-Z and 291-Z-1 buildings to support decommission, deactivation, and preparation for dismantlement of the above grade portions of these PFP facilities
M-083-00A	09/30/16	At Risk	Complete PFP Facility Transition & Selected Disposition Activities

# Accomplishments

## 4<sup>th</sup> Quarter FY 2014

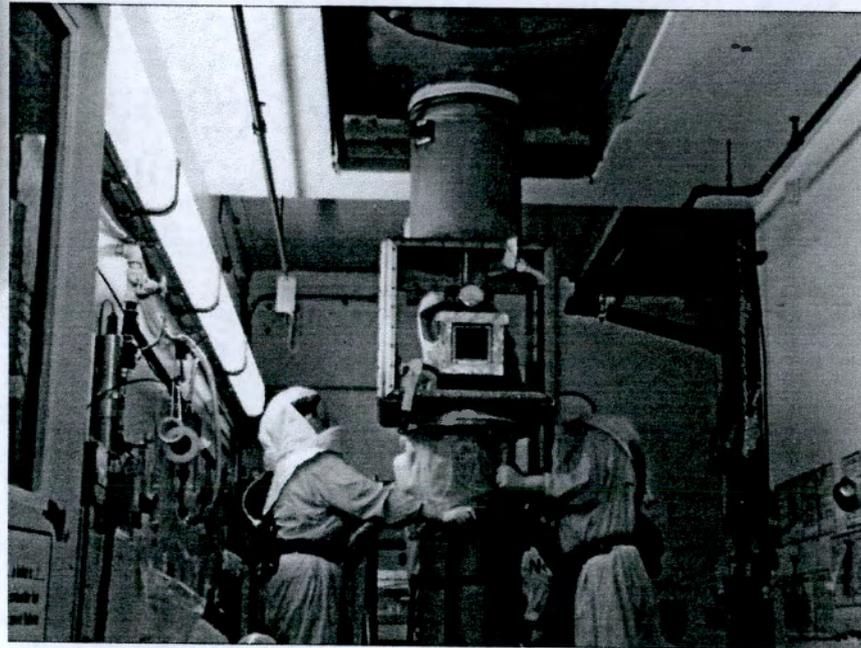


- Initiated entries into 242-Z (i.e., McCluskey Room); completed ventilation modifications which allow the contractor to initiate size reduction of gloveboxes and equipment.
- Removed three gloveboxes from E4 ventilation in 234-5Z (HC-46F, HC-1, and HC-18M).
- The last of eight ancillary support structures planned for demolition in the summer were demolished and waste dispositioned to ERDF.
- 15 pencil tank units were size reduced, sealed out and waste dispositioned. This leaves 27 pencil tank units remaining to complete this effort.

# Accomplishments 4<sup>th</sup> Quarter FY 2014 (cont.)



*The demolition of the former PFP administration building was the last of eight ancillary buildings removed in FY2014.*



*Load-out of a Pencil Tank Unit into a Pencil Tank Overpack (PTO) within 236-Z for eventual loading in waste container.*

# Accomplishments

## 4<sup>th</sup> Quarter FY 2014 (Cont.)



- Completed initial dose rate profile of the 236-Z (Plutonium Reclamation Facility, PRF) canyon floor providing a current assessment of dose readings and to assist in activity planning taking into consideration ALARA. This also supports reactivation of the south canyon airlock planning efforts for use as canyon load-out activities as well as access for grouting conveyance system installation.
- Incorporated efficiencies to allow maintenance and operations employees to better support D&D (e.g., reduced frequency of preventive maintenance activities, elimination of unnecessary procedures, etc.).

# Project Baseline Performance

Contract to Date (through September 2014)



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)
<b>Total</b>	\$731,856	\$699,188.8	\$736,874.6	(\$32,667.2)	-4.4%	(\$37,685.7)	-5.3%	\$937,378.3	\$966,818.7	(\$29,440.4)

# Issues/Challenges



## Regulatory Issues

- *None*

## Non-Regulatory Issues/Challenges

- Modification of existing Documented Safety Analysis (DSA) to address demolition of PFP facilities; DSA being updated to support an incremental reduction of safety significant systems (e.g., ventilation, criticality, fire suppression).
- Continually optimizing work crews and assignments to regain schedule.
- Working on timely procurement/delivery of two additional breathing air compressors to support in-situ size reduction of high gram gloveboxes in 234-5Z RMA/RMC Lines and to support dress/undress training at the HAMMER Facility.

# Planned Activities

## October – March 2015



### **Balance of 234-5Z**

- Relocate remaining personnel from permanent duty locations within the facility to support cold and dark and demolition preparation activities.
- Continue demolition preparations of PFP perimeter.
- Modify door 107 and install waste storage racks in duct level to facilitate waste package removals from facility.
- Begin duct level hazardous material removal and initiate E4 duct removal activities.
- Initiate planning of and begin in-situ size reduction of high gram gloveboxes.

### **236-Z, PRF**

- Continue Pencil Tank Unit removals.
- Separate resin column gloveboxes.
- Complete work on Misc. Treatment gloveboxes.

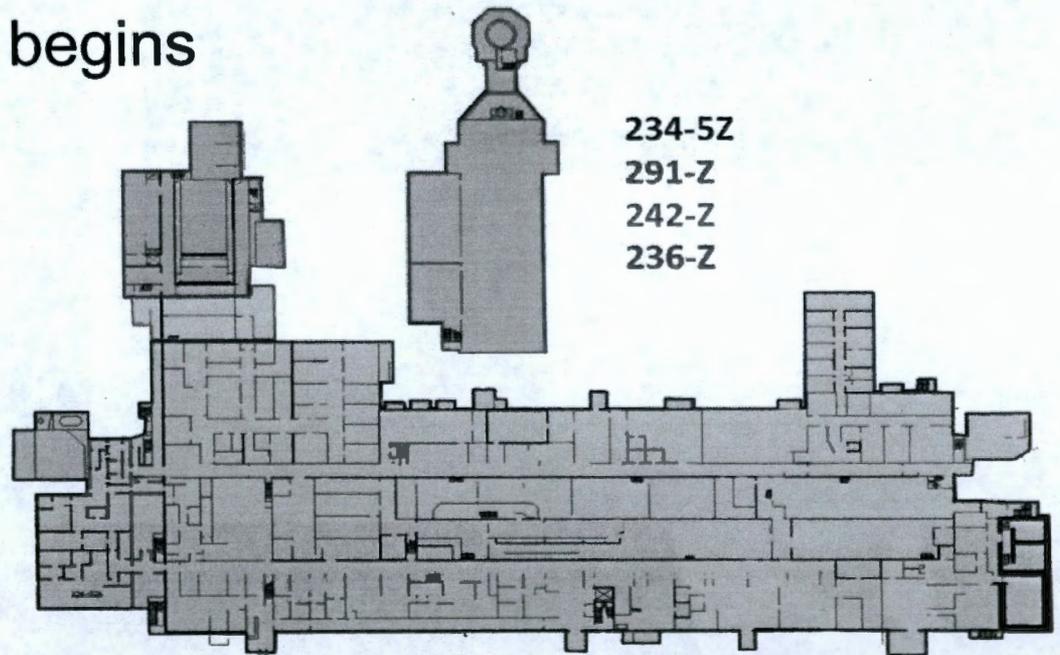
### **242-Z**

- Size Reduce and Disposition two gloveboxes in 242-Z

# PFP Timeline



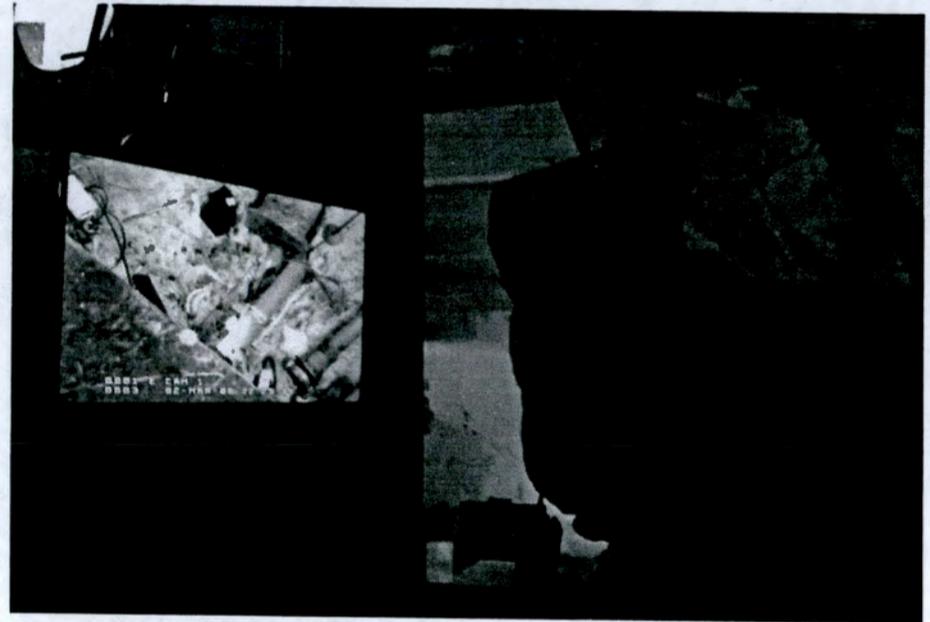
- December 2014: Last 234-5Z glovebox cleaned out & stabilized
- January 2015: Demo prep begins
  - *Grouting, drain line removal, asbestos abatement*
- Spring 2016: Demolition begins
  - *March: 234-5Z begins*
  - *May: 291-Z begins*
  - *June: 242-Z begins*
  - *July: 236-Z begins*



# Progress Photos



*Work inside 242-Z (McCluskey Room).*



*236-Z (PRF) Crane Operator Utilizing Monitor to Visually Assist Removing Pencil Tank Units from Walls Inside Highly Radioactive Canyon.*

# Hanford Lifecycle Scope, Schedule and Cost Report

## TPA Milestone: M-036-01E Quarterly Performance Report

December 11, 2014

Stephen Korenkiewicz, DOE-RL  
Lifecycle Report Project Manager



## MILESTONE DESCRIPTION AND DELIVERABLE

1. The U.S. Department of Energy (DOE) shall prepare and submit to the U.S. Environmental Protection Agency (EPA) and Washington State Department of Ecology (Ecology) a report setting out the lifecycle scope, schedule and cost for completion of the Hanford Site cleanup mission.
2. The initial Hanford Lifecycle Scope, Schedule and Cost Report (Lifecycle Report) was submitted to DOE on July 25, 2011, and subsequent reports are due January 31 of each year. The 2015 Lifecycle Report will be the fifth Lifecycle Report to be prepared.



## RL PROGRAM MANAGERS' ASSESSMENT OF CONTRACTOR PERFORMANCE

1. The contractor responsible for the Lifecycle Report is Mission Support Alliance, Portfolio Management.
2. There were no performance issues related to development and preparation of the Draft and Final 2015 Lifecycle Reports.



## SIGNIFICANT ACCOMPLISHMENTS FOR THE LAST THREE MONTHS

1. The Draft 2015 Lifecycle Scope, Schedule and Cost Report was completed on August 21, 2014 and underwent formal review by both the Department of Energy's Office of River Protection and Richland Operations Office. The review was completed October 31, 2014 and the Final 2015 Lifecycle Report is being prepared.
2. The last Tri-Party Agreement M-036-01 (Lifecycle Scope, Schedule and Cost Report) Project Manager's Meeting was held September 16, 2014.



## SIGNIFICANT PLANNED ACTIONS

1. The Department of Energy will release the 2015 Lifecycle Scope, Schedule and Cost Report to EPA and Ecology by January 31, 2015 to satisfy the associated Tri-Party Agreement Milestone.
2. A Fact Sheet on the 2015 Lifecycle Report will be prepared and distributed to the Hanford Highly Interested Stakeholder mailing list in early-to-mid February 2015.
3. The 2015 Lifecycle Report will be posted on the Hanford.gov website in early-to-mid February 2015.



## SIGNIFICANT PLANNED ACTIONS

### **BUDGET/COST STATUS**

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No major issues identified.

### **ISSUES**

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No major issues identified.

### **NON-TPA REGULATORY ISSUES/POTENTIAL IMPACTS TO TPA**

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No major issues identified.



# 100K Soil Remediation, D4, ISS, & Sludge Treatment Project

*TPA Milestone  
Series:*

*M-016 and M-093*



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

Fourth Quarter FY 2014  
December 11, 2014

**CH2MHILL**  
Plateau Remediation Company



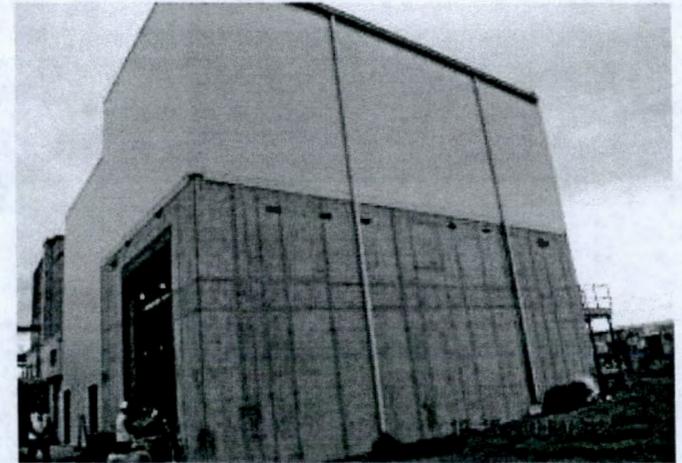
# Accomplishments

4<sup>th</sup> Quarter 2014



## Sludge Treatment Project Phase 1- Removal of Containerized Sludge

- **Begin Sludge Removal from 105-KW Fuel Storage Basin (M-016-175, due 9/30/14 – Missed)**
  - *Completed Annex EPDM roofing system installation.*
  - *Completed Annex Shell Construction.*
  - *Initiated Mechanical and Electrical installation in the Annex.*



*KW ANNEX: Shell construction complete.*



*KW ANNEX: Epoxy application in Load Out Bay.*

# Accomplishments

4<sup>th</sup> Quarter 2014



## Sludge Treatment Project Phase 1- Removal of Containerized Sludge (cont.)

- **Begin Sludge Removal from 105-KW Fuel Storage Basin**  
*(M-016-175, due 9/30/14 – Missed)*
  - *At Maintenance and Storage Facility (MASF), completed demonstration lift of top two sections of half Engineered Container (EC) and loaded EC with sand for simulated system runs.*
  - *Initiated Construction Electrical Installation work in support of In-Basin Construction.*
  - *Released 100KW Basin Debris Relocation Work Package to begin work on the Debris Relocation Campaign in support of the EC top two section removal and relidding as well as the eventual installation of Equipment in the Basin.*

# Accomplishments

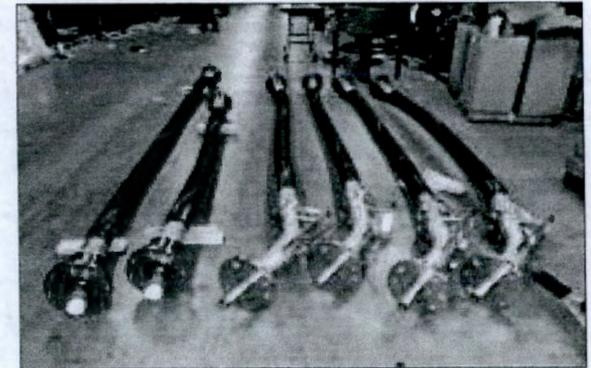
4<sup>th</sup> Quarter 2014



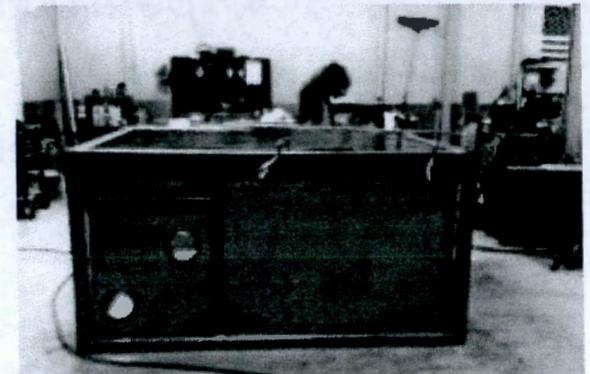
## Sludge Treatment Project (cont.)

### Engineered Container Retrieval and Transfer System (ECRTS)

- *Awarded fabrication contract for Sludge Transportation and Storage Containers (STSCs)*
- *Completed final factory acceptance testing for Hose-in-Hose Transfer Line (HIHTL) Components and received at site*
- *Awarded six equipment fabrication “Sets” contracts for ECRTS process equipment. Subcontractors have initiated work*



*HIHTL components at FAT*



*Decant Pump Box*

# Accomplishments

4<sup>th</sup> Quarter 2014



- **100K D4**
  - 100K Head House Area Facility Demo
    - Started excavations for fire line and potable water isolations
- **105KE Reactor Surveillance and Maintenance**
  - Completed 105KE Reactor Building five-year surveillance

# Accomplishments

4<sup>th</sup> Quarter 2014



- **100K Minimum Safe Activities**
  - Maintained 100K Area Minimum Safe Configuration
    - Performed radiological and waste site surveillances
- **100K Waste Sites**
  - 100KE Characterization Wells
    - Completed work planning for high risk drilling

# Milestone Status



TPA Number	Due Date	Description	Status
M-016-175	09/30/14	Begin Sludge Removal from 105-KW Fuel Storage Basin	Missed
M-016-173	03/31/15	Select K Basin Sludge Treat. & Pkging Technology propose new MS's	At Risk
M-016-143	12/31/15	Complete The Inerim Response Actions For The 100K Area Phase 2	At Risk
M-016-176	12/31/15	Complete sludge removal from 105-KW Fuel Storage Basin	At Risk
M-016-178	12/31/15	Initiate Deactivation of 105-KW Fuel Storage Basin	At Risk
M-093-28	12/31/15	Submit Change Package for Proposed Interim Milestones for 105-KE/KW Reactor Interim Safe Storage	On Schedule
M-016-181	09/30/19	Complete Deactivation, Demolition & Removal of 105-KW FSB	At Risk
M-016-186	12/31/19	Initiate Soil Remediation Under 105-KW Fuel Storage Basin	At Risk
M-093-27	12/31/19	Complete 105-KE & 105-KW Reactor ISS in Accordance with Removal Action Work Plan	On Schedule
M-016-00C	12/31/20	Complete All Response Actions In The 100K Area	At Risk

# Project Baseline Performance

Contract to date through September 2014



RL-0012 Spent Nuclear Fuel 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
<b>Base Total</b>	<b>437.7</b>	<b>443.9</b>	<b>456.9</b>	<b>6.2</b>	<b>-13.0</b>	<b>692.6</b>	<b>726.6</b>	<b>-34.0</b>	<b>1.01</b>	<b>0.97</b>

RL-0041 Nuclear Facility D&D – River Corridor	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
<b>Total</b>	<b>310.5</b>	<b>310.4</b>	<b>282.4</b>	<b>-0.0</b>	<b>28.0</b>	<b>394.6</b>	<b>356.5</b>	<b>38.1</b>	<b>1.0</b>	<b>1.10</b>

Numbers are rounded to the nearest \$0.1M

# Planned Activities

## October 2014 – March 2015



### Sludge Treatment Project

- Engineered Container Retrieval and Transfer System (ECRTS)
  - *RL Approve PDSA to implement Nuclear Safety Initiatives.*
  - *Continue ECRTS Process Equipment Fabrications*
  - *Initiate Debris relocation campaign to support In-Basin installation of ECRTS Equipment*
  - *Complete Electrical installations in KW Basin supporting retrieval operations*

# Planned Activities

## October 2014 – March 2015



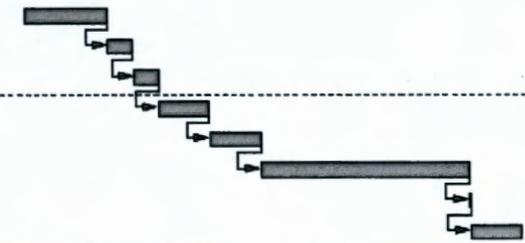
### Sludge Treatment Project *(cont.)*

- **KW Fuel Storage Basin Modified Annex Construction**
  - *Continue to work Mechanical and Electrical Installations in the Annex*
  - *Install HVAC Air Handling Unit and Instrumentation and Controls, install Ductwork Hangers, Ductwork and Test, and install HVAC Stack*
  - *Continue to progress Interior Finishes*
  - *Complete Installation and Connections for Fire Water Piping and Post Indicating Valve*
  - *Identify path forward for environmental documentation for sludge storage at T Plant*

# Planned Activities October 2014 – March 2015



Activity ID	Activity Name	Remaining Duration	Current Start	Current Finish	FY2016			
					FQ1	FQ2	FQ3	FQ4
<b>RL-12 SNF Stabilization &amp; Disposition</b>		160	26-Oct-15	11-Aug-16				
<b>ECRTS-IS-TP.02.01.0005.TP-RPE T-Plant RCRA Permit Evaluation</b>		160	26-Oct-15	11-Aug-16				
CSCD6735	CHPRC Prepare Class II RCRA Permit Modification Package - T-Plant	27	26-Oct-15*	14-Dec-15				
CSCD6740	RL Review Class II RCRA Permit Modification Package	15	15-Dec-15	29-Dec-15				
CSCD6745	RL/Ecology Class II RCRA Permit Modification Package Informal Workshop	15	30-Dec-15	13-Jan-16				
CSCD6750	Ecology Issues 30 Day Pre-Notice For Upcoming Public Involvement Oppo	30	14-Jan-16	12-Feb-16				
CSCD6755	RL Submits Class II Permit Modification Announcement Letter To Ecology	30	13-Feb-16	13-Mar-16				
CSCD6760	Public Comment Period	120	14-Mar-16	11-Jul-16				
CSCD6765	Public Comment Meeting	1	12-Jul-16	12-Jul-16				
CSCD6770	Ecology To Issue Decision	30	13-Jul-16	11-Aug-16				



# Planned Activities

## October 2014 – March 2015



- 100K D4
  - Complete 100K Head House Facility demolition
- 100K Minimum Safe Activities
  - Maintain 100K Area Minimum Safe Configuration
- 100K Waste Sites
  - Award contract for 100K Characterization Wells

RIVER CORRIDOR CLOSURE PROJECT

DOE's Largest Environmental Cleanup Closure Project

# TPA Quarterly Review

For Period: July - September 2014



*Tri-Party Agreement*

## *River Corridor Milestones:*

M-16

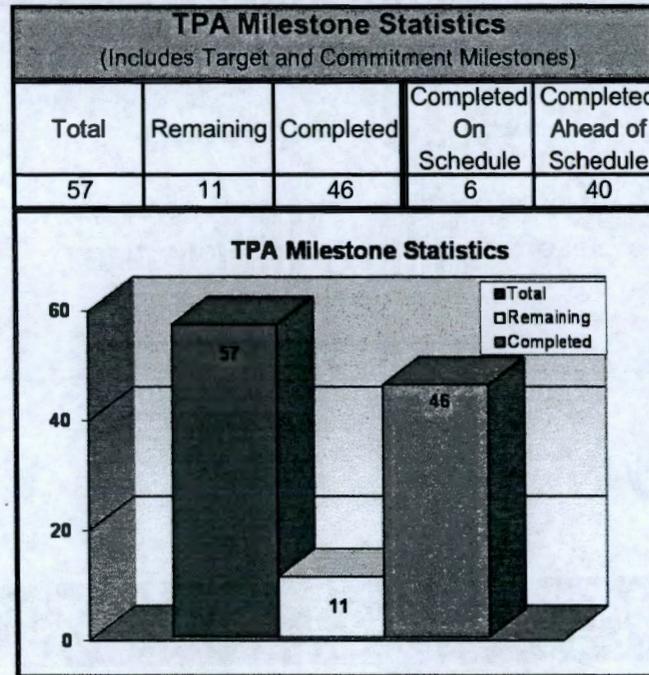
M-89

M-94

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

**December 11, 2014**

*Protecting the Columbia River*



### Quarterly Summary (July – September 2014)

- **Completed TPA Milestones:**
  - M-89-06-T01 - Submit 30% Design of Closure of Mixed Waste Units in 324 Bldg. REC B-Cell, REC D-Cell, and High Level Vault and Low Level Vault That Includes a Schedule to Complete the Design (due 9/30/14) – 9/30/14
- **Approved Change Requests:**
  - None for this reporting period.

RIVER CORRIDOR CLOSURE PROJECT

For Period: July - September 2014

TPA MS No.	Compliance Date	Title	Status	Comments
<b>M-16 Milestones - Remedial Action (milestones through 12/31/2015)</b>				
M-16-149	03/31/15	Complete 100-IU-2/6 Interim Response Actions for Following Sites: 600-293, 600-294, 600-298, 600-299, 600-300, 600-301, 600-303, 600-305, 600-309, 600-310, 600-313, 600-316, 600-318, 600-319, 600-320, 600-321, 600-328, 600-329, 600-331, 600-332, 600-334, 600-326, 600-349, 600-358, 600-368, 600-369, 600-370, 600-371, 600-372, 600-373, 600-374, 600-375, 600-376, 600-377, 600-378, 600-379	At risk	Cultural clearance has delayed the startup of remediation at 600-326, 600-329, and 600-334:2. The discovery of anomalous items at 600-358 and changed scope of 600-349 have also caused delays.
M-16-159	03/31/15	Complete Interim Response Actions for Following 100-D and 100-H Area Sites: 100-D-14, 100-D-56, 100-D-62, 100-D-63, 100-D-65, 100-D-66, 100-D-71, 100-D-73, 100-D-75:2, 100-D-76, 100-D-78, 100-D-80, 100-D-81, 100-D-96, 100-D-101, 100-D-102, 116-DR-3, 118-D-6:4, 1607-D1, 1607-D2, 100-H-37, 100-H-43, 100-H-48, 100-H-52, 100-H-57	On schedule	
M-16-69	09/30/15	Complete All Interim 300 Area Remedial Actions to Include Confirmatory Sampling of All Candidate Sites Listed in 300-FF-2 ROD (except for 618-10 and 618-11 Burial Grounds)	At risk	Milestone change package is being prepared for negotiation with EPA.

**M-89 Milestone - 324 Bldg. Non-Permitted MW Units Closure (milestones through 12/31/2015)**

M-89-06-T01	09/30/14	Submit 30% Design of Closure of Mixed Waste Units in 324 Bldg. REC B-Cell, REC D-Cell, and High Level Vault and Low Level Vault That Includes a Schedule to Complete the Design	Complete	Milestone completed 9/30/14
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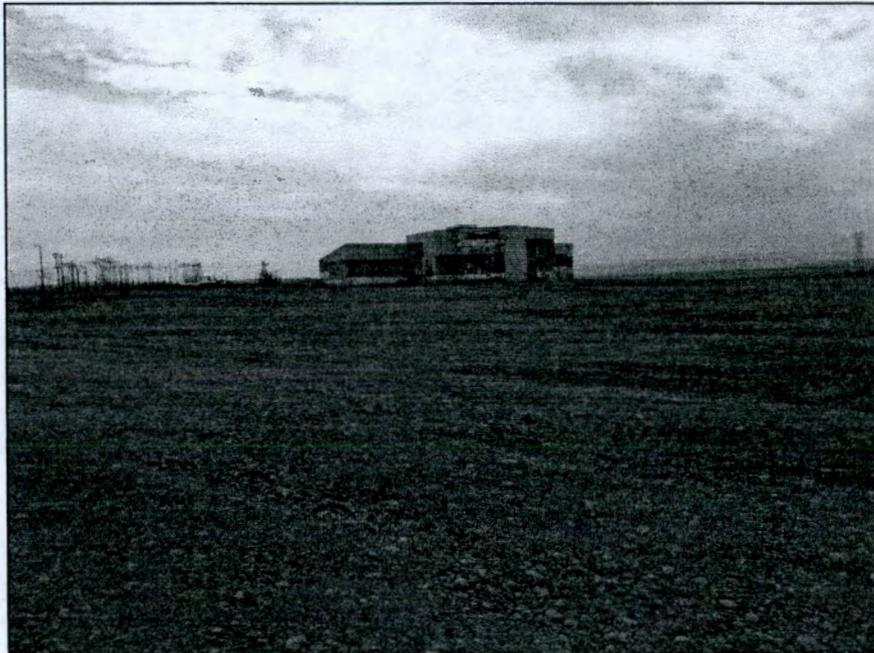
**M-94 Milestones - 300 Area Surplus Facilities Disposition (milestones through 12/31/2015)**

M-94-10	09/30/15	Complete Disposition of 300 Area Surplus Facilities Identified in the Removal Action Work Plan(s) for the 300 Area Facilities Exclusive of the 324 Bldg. and its Ancillary Buildings and Structure	On schedule	Milestone change package is being prepared for negotiation with EPA.
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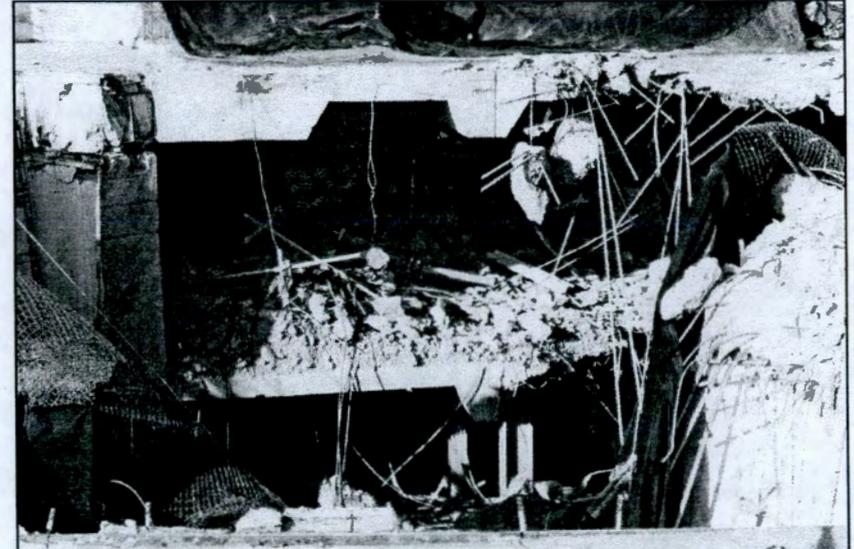
**Significant Accomplishments – For Last 3 Months:**

**M-16 – Remedial Action / Risk Assessment**

- Completed tapping and grout-filling of Radioactive Liquid Waste Sewer (RLWS) piping.
- Completed backfill activities at 100-N Area.
- Received approval of 13 waste site closure documents.
- Completed unexploded ordnance (UXO) and munitions and explosives of concern (MEC) surface and subsurface sweep/removal activities at 600-349.



Backfill Complete at 100-N Area



Explosive Delamination of 309 Building

**M-89 – 324 Bldg. Non-Permitted MW Units Closure**

- Completed transmittal of 30% design for remediation of 300-296 waste site under 324 B-Cell satisfying completion of TPA Milestone M-89-06-T01.

**M-94 – 300 Area Surplus Facilities Disposition**

- Completed explosive delamination of 309 Building.
- Completed removal of 309-TW-3 tank and 309 moderator tank.
- Completed 310 tank demolition.

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

**ERDF**

- For period July-September, disposed ~ 440,100 tons of waste; bringing total to ~ 16.7 million tons disposed in ERDF.
- Received 309 moderator tank from 300 Area.
- Began installation of mechanical locking system on all roll-on/roll-off (RO/RO) containers to prevent loss of control during loading/unloading (98% complete).



Flood-Grouting Items Requiring Void-Fill at ERDF

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

**M-16 – Remedial Action / Risk Assessment**

- Receive direction on approved location to detonate retrieved UXO items.

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

- Receive subcontractor 60% design for remediation of waste site 300-296 under B-Cell in 324 Building.
- Maintain minimum safe conditions until subcontractor submits detailed plan for remediation of 300-296 waste site under B-Cell.
- Procure equipment for mockup activities and long-lead items for remediation of 300-296 waste site.
- Continue construction of mockup facility for remediation of 300-296 waste site.

**M-94 – 300 Area Surplus Facilities Disposition**

- Continue below-grade demolition of 309 Building.
- Transport 309-TW-3 to ERDF for disposal.

**ERDF**

- Prepare to receive 309-TW-3 from 300 Area.
- Support FR and D4 projects accelerated transportation and disposal production for closure.
- Complete installation of mechanical locking system on all RO/RO containers to prevent loss of control during loading/unloading.

**PERFORMANCE SUMMARY**  
**Contract Inception (8/27/05) through September 2014**  
 (\$K)

						<i>Previous Quarter Comparison</i>			
	IPB		CUMULATIVE			SCHEDULE VAR (\$)		COST VAR (\$)	
	BAC	EAC	BCWS	BCWP	ACWP	Jun	Sep	Jun	Sep
D4	648,226	647,114	636,604	622,122	559,683	-15,708	-14,482	59,169	62,438
Reactor ISS	75,902	81,777	75,902	75,902	81,777	0	0	-5,877	-5,875
Field Remediation	969,451	1,011,041	846,132	765,958	723,306	-40,437	-80,174	39,492	42,652
Waste Operations	613,855	502,485	575,665	583,060	458,861	-3,658	7,395	122,090	124,199
ESFC	78,044	60,598	77,086	74,226	57,887	-2,883	-2,860	15,280	16,339
Mission/General Support	397,178	382,121	387,551	387,551	346,222	0	0	36,064	41,330
Transition	3,979	3,747	3,979	3,979	3,747	0	0	232	232
Contingency						0	0	0	0
<b>TARGET COST TOTAL</b>	<b>2,786,635</b>	<b>2,688,883</b>	<b>2,602,919</b>	<b>2,512,798</b>	<b>2,231,483</b>	<b>-62,686</b>	<b>-90,121</b>	<b>266,451</b>	<b>281,315</b>

**Schedule Variance (PMB): (\$90,121K)**

- Variance associated with 618-10, 100-D and 100-H remediation delays, as well as delayed start of remaining waste sites around the 309 Building. 618-11 negative schedule variance is due to funding constraints.
- Delay in D4 due to waste site discovered beneath 324 Building and 309 Building demolition delay due to differing site conditions

**Cost Variance (PMB): \$281,315K**

- Significant underruns experienced in 300 Area building characterization, deactivation, and demolition activities; and in utility charges and surveillance and maintenance activities. Favorable cost variance is somewhat offset by delays in 309 Building due to technical challenges.
- 100-B/C, 100-D, 100-F, and 100 IU-2/6 remediation underruns due to favorable subcontract rates, largely offset by overruns in 300 Area due to delayed release of facilities, 618-10 due to quantity growth and change to hazard category 3, and project support costs at most active dig sites.
- Costs have been less than planned due to Waste Operations efficiencies achieved in waste treatment, transportation, and construction.

## ***RCC Issues***

### **M-16-149 - Obtaining Cultural Clearance**

- **Issue:** Startup of remediation at the 600-326, 600-329, and 600-334:2 waste sites; the discovery of anomalous items at the 600-358 waste site; and changed cleanup scope of 600-349 to address lead bullets require extended National Historic Preservation Act (NHPA) consultation due to their location in a Traditional Cultural Property (TCP) and Historical Archaeological District. For these areas, the period for determining effects to historic properties, establishing formal agreement with the Washington State Historic Preservation Office (SHPO) and with the affected Tribal Nations, and obtaining formal Advisory Council on Historic Preservation (ACHP) opinion regarding the adequacy of the DOE/RL basis for decisions has evolved into an extended process (36 months and more) that places remedy completion beyond the March 31, 2015 milestone date.

**Status:** RL will continue evaluating acceptable alternatives to remediation at the 600-326, 600-329, 600-334:2, and 600-349 waste sites; and work closely with EPA on sampling, closure, backfill, and revegetation of 600-358 to completion as soon as practicable.

TPA Decision Document List

	Geographical Areas	ROD Area Location	Document	Milestone	Milestone Due Date	Regulatory Review	DOE Lead	Contractor Lead	Regulatory Lead	Agency	Comments/Issues
1	Central Plateau Source Inner Area	200-IS-1 200 East Inner Area/Pipelines	RF/CMS & RI/FS Work Plan - Draft B	M-015-112: Submit Draft B RCRA Facility Investigation/Corrective Measures Study (RFI/CMS) & Remedial Investigation/Feasibility Study (RI/FS) work plan for 200-IS-1 OU to Ecology Dispute Resolution	2/28/2014	TBD	D. Hildebrand	A. Day	Nina Menard	Ecology	DOE and Ecology agreed, on November 17, 2014, to extend dispute resolution at the project manager level to January 30, 2015. Issues preventing the dispute from being resolved are associated with the waste site identification and TSD designations. The list of 200-IS-1 OU waste sites and TSD status are not agreed with Ecology (anticipate an additional 230 waste sites for 200-IS-1); current knowledge indicates that Ecology attorney's won't be able to initiate their review until mid-December, 2014. RI and Ecology are continuing the waste site scoping workshops as part of the RI/FS WP development.
2	Central Plateau Source Inner Area	200-EA-1 200 East Inner Area/Pipelines	RF/CMS & RI/FS Work Plan	M-015-92A: Submit a RCRA Facility Investigation/Corrective Measures Study & Remedial Investigation/Feasibility Study work plan for the 200-EA-1 operable unit to Ecology To Be Missed	6/30/2015	TBD	D. Hildebrand	A. Day	Nina Menard	Ecology	Project not funded in FY14 or FY15; milestone will be missed.
3	Central Plateau Source Inner Area	200-EA-1 200 East Inner Area/Pipelines	TSO - Closure Plans for 207-A South Retention Basin (DOE/RL-2005-89 RI), 216-A-29 Ditch (DOE/RL-2008-53 RI), 216-A-368 Crib (DOE/RL-2005-90 RI), 216-A-37-1 Crib (DOE/RL-2005-88 RI), and 216-B-63 Trench (DOE/RL-2005-11 RI)	M-037-02: Submit Revised Closure Plan to support TSD closure for five (5) TSD Units Complete	MS Completed 4/23/14	6/14/2014 12/9/2014	J. Astel	Phil Burke	Nina Menard	Ecology	Ecology letter 14-NWP-222 dated 10/10/14 extends review to 12/9/2014.
4	Central Plateau Source Inner Area	200-EA-1 and 200-IS-1 200 East Inner Area/Pipelines	CMS & FS Report(s) & PCAD(s)/PP(s)	M-015-92B: Submit Corrective Measures Study & Feasibility Study Report(s) and Proposed Corrective Action Decision(s)/Proposed Plan(s) for the 200-EA-1 and 200-IS-1 OUs to Ecology At Risk	12/31/2016	TBD	D. Hildebrand	A. Day	Nina Menard	Ecology	TPA Change Form M-15-11-03 changed due date to 12/31/2016. Milestone will be missed; 200-IS-1 Work Plan is in progress with the delivery date still under negotiation and the 200-EA-1 Work Plan is not funded in FY14.
5	Central Plateau Source Inner Area	200-IS-1	TSO - Closure Plan for the Hexone Storage and Treatment Facility TSD Unit	M-037-01: Submit Revised Closure Plan to support TSD closure of the Hexone Storage and Treatment Facility (276-S-141/142) TSD Unit. Complete	MS Completed 7/16/2010		D. Hildebrand	Phil Burke	Nina Menard	Ecology	Comments received. Project not funded to address comments.
6	Central Plateau Source Inner Area	200-WA-1 and 200-BC-1 200 West Inner Area	RI/FS Work Plan	M-015-91A: Submit a Remedial Investigation/Feasibility Study Work Plan for the 200-WA-1 operable unit to EPA Complete	MS Completed 12/27/2011		J. Sende	Phil Burke	Craig Cameron	EPA	Received EPA comments 2/15/12; draft Rev. 0 RI/FS WP are planned to be submitted to EPA by March 31, 2015. Uranium Reactive Gas Treatability Test plan is scheduled in FY15.
7	Central Plateau Source Inner Area	200-WA-1 and 200-BC-1 200 West Inner Area	FS/PP	M-015-91B: Submit Feasibility Study report and Proposed Plan for the 200-WA-1 operable unit to EPA To Be Missed	12/31/2015	TBD	J. Sende	Phil Burke	Craig Cameron	EPA	Milestone will be missed due to funding and delays in the completion of the 200-WA-1 RI/FS Work Plan.
8	Central Plateau Source Inner Area	200-SW-2 200 West Inner Area & 200 East Inner Area	RFI/CMS & RI/FS Work Plan - Draft B	M-015-113: Submit Draft B RCRA Facility Investigation/Corrective Measures Study (RFI/CMS) & Remedial Investigation/Feasibility Study (RI/FS) work plan for the 200-SW-2 OU to Ecology On Schedule	3/31/2015	4/1/2015 4/30/2015	D. Hildebrand	Phil Burke	Deborah Singleton	Ecology	Milestone description stated deliverable will include a schedule of completion dates for major tasks and deliverables.
9	Central Plateau Source Inner Area	200-SW-2 200 West Inner Area & 200 East Inner Area	RFI/CMS & RI/FS & PCAD/PP	M-015-93B: Submit RCRA Facility Investigation/Corrective Measures Study & Remedial Investigation/Feasibility Study Report and Proposed Corrective Action Decision/Proposed Plan for the 200-SW-2 OU to Ecology At Risk	12/31/2016	TBD	D. Hildebrand	Phil Burke	Deborah Singleton		Milestone will be missed due to delays in completion of the 200-SW-2 RI/FS Work Plan.
10	Central Plateau Source Inner Area	200-PW-1/3/6, CW-5 200 West and 200 East	RD/RAWP	M-016-125: Submit a Remedial Design/Remedial Action Work Plan for 200-CW-5 and 200-PW-1/3/6 to EPA as described in section 12.4 of the associated ROD. On Schedule	9/30/2015	10/1/2015 11/16/2015	J. Reddick	P. Byrnes	Emy Lajth	EPA	Meeting scheduled on December 8, 2014, with EPA to discuss Contractor and DOE approach.
11	Central Plateau Source Deep Vadose Zone	200-DV-1 Deep Vadose Zone	RI/FS Work Plan	M-015-110A: Submit RCRA Facility Investigation/Corrective Measures Study (RFI/CMS) & Remedial Investigation/Feasibility Study (RI/FS) work plan for the 200-DV-1 OU to Ecology. The work plan shall include technology screening that identifies technologies applicable for characterization, treatment, and monitoring of deep vadose zone contaminants. On Schedule	3/31/2015	4/1/2015 6/1/2015	J. Morse	M. Byrnes	Dib Goswami	Ecology	
12	Central Plateau Source Deep Vadose Zone	200-DV-1 Deep Vadose Zone	CMS/FS and PP/PCAD	M-015-110B: Submit Corrective Measures Study & Feasibility Study Report and Proposed Plan/Proposed Corrective Action Decision for the 200-DV-1 OU to Ecology To Be Missed	9/30/2015	TBD	J. Morse	M. Byrnes	Dib Goswami	Ecology	Milestone will be missed. This milestone cannot be completed until the RI/FS & RFI/CMS work plan is approved and the field characterization completed.

Note: Yellow highlighted items reflect completed milestone/target. Left on long list for followup status. Blue text reflects changes from previous month.

(Information current as of 12/4/14)

TPA Decision Document List

	Geographical Areas	ROD Area Location	Document	Milestone	Milestone Due Date	Regulatory Review	DOE Lead	Contractor Lead	Regulatory Lead	Agency	Comments/Issues
13	Central Plateau Source Outer Area	200-CW-1, 200-CW-3, and 200-OA-1 Outer Area	Central Plateau Outer Area RI/FS work plan/SAP	None		TBD	B. Vannoh	Phil Burke	L. Buelow	EPA	Outer Area RI/FS work plan/SAP is not funded in FY15. This work precedes the RI/FS report (M-015-348).
14	Central Plateau Source Outer Area	Outer Area	FS/PP	M-015-348: Submit a revised Feasibility Study Report and revised Proposed Plan(s) for the 200-CW-1, 200-CW-3, and 200-OA-1 Operable Units for Waste Sites in the Outer Area of the Central Plateau to EPA	TBD	11/1/2015 12/15/2015	B. Vannoh	Phil Burke	L. Buelow	EPA	EPA approval on Change Form M-15-14-01 was received on July 17 2014 for the revised date of 10/30/2015 to provide a schedule for completion of this milestone.
15	Central Plateau Source Outer Area	200-CW-1, 200-CW-3, and 200-OA-1 Outer Area	TSDs - Closure Plan for 216-B-3 Main Pond and 216-S-10 Pond and Ditch	M-037-09: Submit Revised Closure Plans Complete	Milestone Completed 4/18/2013	4/19/2013 7/17/2013	J. Sands	Phil Burke	Nina Menard	Ecology	NOI issued. CPHC and RL are discussing strategy for responding and resubmitting the closure plans.
16	Central Plateau Groundwater	200-BP-5, 200-PO-1 200 East Area Groundwater	200-BP-5 RI Report			7/1/2015 8/15/2015	J. Morse	Curt Wittreich	Nina Menard	Ecology	Preparation of the BP-5 RI Report in progress and on schedule for Draft A delivery 6/30/2015. Ecology briefings have been schedule over the next 4 months.
17	Central Plateau Groundwater	200-BP-5, 200-PO-1 200 East Area Groundwater	200-PO-1 RI Report Addendum			7/1/2015 8/15/2015	J. Morse	Curt Wittreich	Nina Menard	Ecology	On schedule for Draft A delivery on 6/30/2105. Ecology briefings have been scheduled from Oct 2014 through Jan 2015.
18	Central Plateau Groundwater	200-BP-5, 200-PO-1 200 East Area Groundwater	FS/PP	M-015-21A: Submit a 200-BP-5 and 200-PO-1 OU Feasibility Study Report and Proposed Plan(s) to Ecology To Be Mitigated	6/30/2015	TBD	J. Morse	Curt Wittreich	Nina Menard	Ecology	FS/PP was not funded in FY14. Work initiated in FY15 with an expected Draft A delivery to EPA by 6/30/2016.
19	Central Plateau Groundwater	200-UP-1 200 West Area Groundwater	Technology Evaluation Plan	M-016-192: Submit a 229 Technology Evaluation Plan Draft A to EPA as defined in the 200-UP-1 RD/RA WP On Schedule	6/17/2016	6/18/2016 8/1/2016	H. Blomd	PHNL	E. Leffe	EPA	
20	River Corridor	100-BC-1, 100-BC-2, 100-BC-5 100-B/C	RI/FS Reports and Proposed Plan	M-015-79: Submit RI/FS Report and PP for 100-BC On Schedule	12/15/2016	12/16/2016 01/30/2017	G. Sinton	Phil Burke	L. Buelow	EPA	
21	River Corridor	100-DR-1, 100-DR-2, 100-DR-3, 100-HR-2, 100-HR-3 100-D/H	RI/FS Reports and Proposed Plan	M-015-76-TD1: Submit FS & PP for HR 1/2/3 and DR 1/2 Complete	Target Completed 12/14/2013		J. Hanson	Elle Feste	Nina Menard	Ecology	The Rev 0 RI/FS is complete. The PP is scheduled for EPA Remedy Review Board review from January 26-30, 2015.
22	River Corridor	100-FR-1, 100-FR-2, 100-FR-3, 100-IJ-2, 100-IJ-6 100-F/IJ	Record of Decision		Complete		G. Sinton	Phil Burke	C. Guzzetti	EPA	Complete, EPA and DOE signed the ROD. Awaiting concurrence from Ecology.
23	River Corridor	100-FR-1, 100-FR-2, 100-FR-3, 100-IJ-2, 100-IJ-6 100-F/IJ	Remedial Design / Remedial Action Work Plans			3/30/2015 4/15/15	G. Sinton	Phil Burke	C. Guzzetti	EPA	Due date is 180 days after ROD is complete (3/29/2015).
24	River Corridor	100-KR-1, 100-KR-2, 100-KR-4 100-K	RI/FS Reports and Proposed Plan	M-015-66-TD1: Submit RI/FS Report and PP for 100-K. Complete	Target Completed 9/21/2011		J. Hanson	Elle Feste	C. Guzzetti	EPA	RI/FS and PP, Rev 0, are on hold pending characterization. The characterization boreholes at 100-KE Reactor waste sites are funded in FY15.
25	River Corridor	100-NR-1, 100-NR-2 100-N	RI/FS Reports and Proposed Plan	M-015-75: Submit FS/PP for NR 1/2 Complete	Milestone Completed 8/24/2013	6/25/2013 10/2/2013	G. Sinton	Bill Fought	A. Boyd	Ecology	Ecology is not reviewing the PP until RI/FS comment resolution is complete. Disposition meetings with ECY are ongoing Comment resolution extended to March 26, 2015.
26	River Corridor	300-FP-2, 300-FP-6 300	Remedial Design / Remedial Action Work Plans	Submit RD/RA WP Draft A to Regulators		5/26/2014 8/8/2014	J. Sands	B. Day	Benjamin Slone	EPA	RL provided EPA with the updated comment responses and the updated documents (Rev. 0) Integrated RDR/RAWP and groundwater addendum) on October 1, 2014. Final text updates were agreed upon with EPA (week of November 10 2014), and proceeding with signature copy of Rev 0.

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