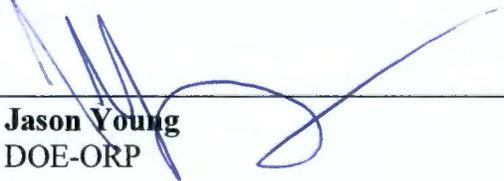


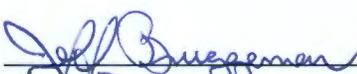
ORP TPA Project Managers' Monthly (PMM) Meeting  
June 19, 2014  
2440 Stevens Center  
Richland, Washington  
Meeting Minutes

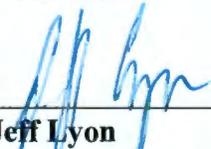
The undersigned indicate by their signatures that these meeting minutes reflect the actual occurrences of the above dated Project Managers' Monthly Meeting.

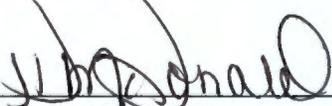
Approval:  Date: 8-6-2014  
**Chris Kemp**  
DOE-ORP

Approval:  Date: 8/12/14  
**Wahed Abdul**  
DOE-ORP

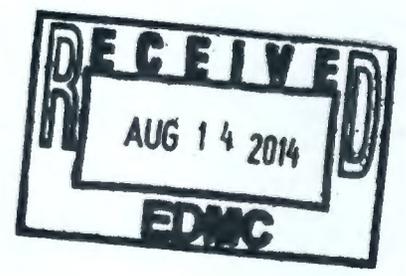
Approval:  Date: 8/12/14  
**Jason Young**  
DOE-ORP

Approval:  Date: 8/11/14  
**Jeff Bruggeman**  
DOE-ORP

Approval:  Date: 8-6-14  
**Jeff Lyon**  
Washington State Department of Ecology

Approval:  Date: 8-6-14  
**Dan McDonald**  
Washington State Department of Ecology

1226692



ORP Project Managers Meeting  
June 19, 2014  
2440 Stevens Center  
Richland, Washington  
**Meeting Minutes Transmittal**

**1.0 Administrative Items**

ORP noted that the recent items entered into the TPA administrative record are listed on the agenda and can be pulled up by looking up the numbers.

**2.0 Agreements, Issues, Actions**

ORP stated there are no major changes to the agreements and issues and no major changes to Tank Farm action items.

ORP noted that there is no action listed for approval of the request to forego the third technology for C-101. It will be added. Jeff Lyon will be the actionee.

ORP reported that for action No. 1, they have a briefing set up with staff from Ecology on June 25<sup>th</sup>. The meeting will get a number of people up to date with the LAW Pretreatment system. Briefing materials will be open and free for Ecology to have on effective content.

*Huffman*

*CJK  
8-6-20 H*

Ecology wanted to know who is taking over for the TPA coordinator. Lori Huffman will be it for right now, but she's supposed to have authority to hire another person. Mr. Lynch will help with the transition.

Ecology suggested that the action items that have been open for some time, that the group should go through them and explain why. ORP agreed and made the following explanations:

Action No. 1 was just spoke to by ORP.

Action No. 2 was put as a placeholder. They just got an approval for justification of mission need for the TWCS and Direct Feed HLW is still way off in the future. ORP will have people present something off of that. Wrzesinski will be the actionee.

Action No. 3 - There is a closure plan developed by the contractor and submitted to Kemp annually that's been going through a revision, but a project management plan is under discussion right now between DOE and its contractor. Ecology asked when that could be expected, and DOE thought likely by the end of September.

Action No. 4 - Rev. 7 for the hose-in-hose transfer line management plan. ORP said that in the biweekly interface meeting with Ecology and ORP, there was a letter forthcoming to approve the extension of six hoses that were supposed to be removed in 2014. That didn't satisfy the longer term temporary hose management plan need. There were seven additional hoses that by the end of October were going to be expired but that were going to potentially still be in use for the C-102 tank that has been already notified to be at risk missing the milestone. The two things needed are approval to extend the schedule into 2015 and also not to impact retrieval activities by having hoses that are in a state that opens up potential enforcement. ORP has developed RPP-12711 which identifies a schedule for hose removal. There has been discussion with Ecology about compliance concerns related to how to manage the hoses. ORP's position is that the TPA be used to manage the work that's outside of River compliance and to update the temporary hose management plan to be more conducive to efficient retrieval in C Farm. ORP feels the action is with Ecology.

ORP received recently an assessment from November 2012 that outlined some concerns about the hoses and ancillary equipment identified in the RPP-12711. ORP heard that there needed to be further discussion in Ecology and would like some feedback soon. The Department is at risk not having the letter to at least approve the hoses for 2014. Ecology felt this was a good assessment by the Department and will follow up. This will also be added to the biweekly meeting agenda.

Lynch noted that the TPA change package is ready. Once approval of Rev 7 of the management plan is approved, the TPA package will be signed and an official primary document.

Action No. 5 is with Ecology on a list of team members. Ecology is still working on that, will try to get it done this week. ORP noted it would be important as they move ahead on the Direct Feed LAW program and the LAW pretreatment system project.

Action No. 6 is on the to be missed milestones for the WMAC-PA. ORP said that workshops are being held June 23 and 24. Making progress on the PA, but need to resume discussion on M-045-61 and 62 to make it more aligned with the work planned and the decision-making path. ORP will status the action items.

### **3.0 Review of the ORP Summary**

ORP reported that in the TPA report, Milestone M-047-07 and M-090-13 were previously at risk and are now listed as to be missed. M-045-61, M-045-62, and M-045-82 are to be missed. Everything else is on schedule. No change with the CD milestones and they are working on the semi-annual report to be to Ecology by July 31<sup>st</sup>. It was also noted that the one-time Tank Waste Supp Treatment Technologies Report, M-062-40ZZ, is listed as on schedule but it's not.

ORP is doing the modeling for Ecology's cases and working the writing of System Plan 7 document that's under M-062-40D, due October 31, 2014. Ecology stated everyone seems to

be on schedule but requested to be kept informed and they would like to hear an update at the next meeting.

Acquisition of new facilities - M-090-13 and M-047-07, the Interim Hanford Storage Project and the Secondary Liquid Waste Treatment, both required the conceptual design report by September 30<sup>th</sup>, 2014, and both are statused to be missed. Funding has not been applied to the projects in FY '14 or '13. The timing of these projects is tied to the Waste Treatment and Immobilization Plan Schedule, and that schedule is under the consent decree negotiations. Ecology asked if ORP has a view of how all the pieces and parts will come together as far as what is independent and what is dependent on other things and if that view could be shared with Ecology. ORP stated that at the end of negotiations, when they arrive at new schedules, that will be communicated.

One-Time Tank Waste Supplemental Treatment Technologies Report - The Department delivered a letter to Ecology documenting the agreement from past project manager meetings that neither party wanted the one-time report under that timing. Funding has been limited and not applied, concentrating on retrievables. A letter was received back from Ecology noting there was not going to be a report produced and ORP is working with the Department of Justice to respond to that letter. ORP submitted a change package and has not heard back in terms of removing the one-time report from the TPA. Requested Ecology look into that and Ecology noted they would.

M-062-45ZZ, one-time selection due April 30<sup>th</sup>, 2015, Ecology emphasized in their letter that this milestone and the follow-up milestone related to the supplemental treatment will remain in effect. ORP agrees with that and has not made any changes and wants it to be rolled into the overall negotiation process for the timing of the project for waste treatment. Ecology asked if the one-time supplemental treatment selection could be expected by April 15<sup>th</sup> and ORP did not want to comment on that until more discussion is had with Ecology. ORP also noted that there are more details under the significant past accomplished in the TPA Administrative Record.

242-A Evaporator - Campaign 13-01 is still valid, with 14-01 estimated to start in late September, early October. ORP reported that on May 7, 2014, WRPS declared a readiness to restart the 242 Evaporator. On that same date a decision was made to implement a Safety Basis change at the 242-A in series with the Independent Corporate Readiness Assessment. There was a PISA put in place regarding a credible fire scenario that was not analyzed in the documented safety analysis. WRPS contracted a fire protection corporation to do a modeling study specifically for the evaporator room. A safety review board meeting is being held to confirm that the results from the study are set in place.

During the month of May, work was done on slurry pump PB-2. Work initiated on valve H-31 and steam trap A-8 is ongoing. K1 control power modifications were completed. The level detector LEL-C103-1 replacement on the steam condensate weir box overflow was completed. Preparations began for planned preventive maintenance work during the electrical power

outage. Staff also supported an EPA Ecology compliance inspection at the 242-A Evaporator Facility.

Double-Shell Tank System Update - One of the lines in the AW-04A pit hasn't successfully passed through encasement pressure testing and that is being worked on. Ultrasonic testing on AP-104 is completed. AP-106 is delayed but should be starting again. ORP initiated procurement of the EMAT system to be installed on a UT crawler that will be a screening tool that identifies areas of concern quicker than the UT.

ORP noted that visual inspections were done in AY-102 and a couple transfers there. Ecology asked if all the transfers made in the month of May were listed, and ORP responded that they were. Ecology would like a report of all the transfers made in the future. Ecology also asked what a comprehensive inspection is. ORP responded that those inspections are tied to the administrative order so that would be in the monthly and pictures have been sent. Ecology would like it noted when the pictures are sent. Ecology would also like it reported when there are DSTs within the leak detection pit that need to be pumped frequently. ORP agreed and will ensure to include leak detection pit pumping if any is scheduled.

SST Integrity - It was reported that everything is on or ahead of schedule. Document completion of M-045-91G-T03, structural analysis of record for the tank 4 tanks is ready to be transferred. There's also tank-to-tank interaction study that will be put into the administrative record. The results of that study were favorable.

Ecology asked for a presentation. ORP stated the reason that hasn't been done is because nothing has changed, but that they could.

M-045-91B-T01 is on or ahead of schedule. 38 ½ feet of core has been shipped to testing laboratory which results will be documented for completion of the target date.

Ecology asked if the AY-102 Leak-Detection Pit Liquid Grab Sampling is planning to do a transfer soon. ORP stated there is no near term transfer plan because the current level in the pit is only five inches. It needs to reach an upper limit of 20 inches.

In Tank Characterization and Summary - No report, no questions.

Tank Operations Contract Overview - ORP reported overall performance is good. Base Operations and Tank Farm Projects is a bit behind schedule for the evaporator, but making progress.

Retrieval and Closure of the SSTs. For the month of April, there is an unfavorable cost variance of 1.5 million. Work has slowed in the farms with continuous vapor concerns and interruptions to retrievals. As a corrective action, vapor reduction zone markings are up and everyone has been trained on half masks, so work is starting to get more routine.

ORP reported work was also behind schedule in C-105 because of a leak in portable valve box 104. That was fixed and started retrieval again. C-102 was ahead of schedule, making the cost variance favorable. Received the first of two Extended Reach Sluicing Systems for backup ahead of schedule.

Ecology asked what is going on with the acceleration of conceptual design. ORP stated they asked for a proposal from the contract back in November, got the proposal in January to do design work on LAW Pretreatment System. There was direction to start the project with a not-to-exceed amount of money while the whole contract proposal was processed. Since there was substantial progress made in the 2011 effort, they are able to use a lot of that past work, although updates have to be made to those documents. Progress is good. The whole CD-1 package should be ready before December.

Ecology asked about the core sampling process on characterization. ORP stated they are still trying to work out some kinks to the piece of equipment, but retrieval and closure isn't relying on that equipment for performing the types of samples needed to determine retrieval technologies. SY-102 is going to get a sample and is still on schedule.

Work Breakdown Structure 5.2 Retrieve and Close Single-Shell Tanks - M-045-22, a work plan was developed and transmitted.

Significant past accomplishments and planned actions - Pore water extraction test south of SX Farm is completed and results have been provided to Ecology. M-045-22-T02, data collection on U Farm is completed. Direct-push field work for TX Farm under M-045-20 work plan has been completed. The requirement to follow up on barrier placements by the end of September is on schedule. Documentation for the WMA-C Phase 2 RCRA Facility Investigation continues.

Significant planned actions in the next six months - Complete sample analysis for direct push, midyear workshops for the performance assessment of WMA-C, and completing a review of the retrieval data report for C-110.

Tank Waste Retrieval Work Plan Status - ORP reported there was a signature of C-107 TWRP for a third technology and they are looking forward to completing the retrieval and moving more waste out of C-107.

Ecology asked if they would be provided a plan or report on the review of the modeling process of WMA-C. ORP reported that as of right now they are unsure when they will see products that result from the modeling to review, but will involve Ecology in the process along the way similar to how they did when the EIS was done. They are waiting on action from DOE Richland Operations where the modeling resides. Ecology thought there was a review plan. ORP would like to talk with Ecology more about what they would like to see and Ecology agreed. *ORP will put this on the action item list as schedule/plan with oversight opportunities with ORP and Ecology for the WMA-C PA modeling.*

Consent Decree Report - ORP reported having completed some retrieval of C-102, 95,000 gallons of waste, but limited right now by how much sludge can be stored in the receiver tank. Testing has been done that showed even with the amount of sludge needed to be stored on the project, there are still plenty of pathways for gas to be moved out of sludge. The safety analysis is being reviewed by DOE ORP. The planned scheduled approval is in July. When approved, C-102 can resume retrieval.

C-111 had acceptance testing for the ERSS arms which found some hydraulic leaking coming from the booms in the ERSS arms, one more than the other. It was reported that testing is continuing to determine a path forward.

C-105 operations started June 11<sup>th</sup>. First time the MARS equipment was used, so still trying to learn the instrumentation. They've been able to set up some administrative controls in the way they do business in the field so they can continue doing retrieval. It was reported that the MARS unit is unique because it does not have a slurry pump in the tank. This is the first time the design has been used and so some issues are to be expected. At this point, every tank in C Farm as had some progressive retrieval made.

It was also reported that repairs on the valve leak in the POR 104 valve box have been completed and continued installation of equipment for C-111.

Significant planned activities for the next six months: Completing retrieval of C-105 scheduled for completion in September, going back and forth between retrieval at 105 and 107 using the hot water wash. The hard heel retrieval in C-111 is scheduled to complete in the next six months. It was noted as an issue that the DOE has notified the State of Washington and the State of Oregon that a serious risk has arisen that DOE may be unable to meet this consent decree milestone. The notification was specific to tanks C-105 and C-102. There is also an issue receiving response on the request to forego the third technology for C-101.

Ecology asked if ORP is still remaining optimistic about 105 and 102 being completed before the end of the consent decree schedule. ORP responded that C-105 should complete this fiscal year. C-102 is waiting for the C-111 deep sludge concern, but is scheduled to be done before the consent decree date.

*ORP again noted the action items as the response on the request to forego the third technology for C-101 and schedule/plan for oversight opportunities on the WMA-C PA modeling. Ecology will check on the status of the change packet for the one-time report.*

Pretreat Facility - ORP reported that the tech issues are still ongoing. DOE and BNI are having meetings to work through the issues. The mixing test platform work is moving forward, working test plans and looking at a standardized design for vessels. Ecology asked if there was a capacity range for the vessels settled on. ORP will report back on that.

## Pretreatment Facility

BNI is working on a resumption plan for Pretreat similar to what was done with HLW and that's supposed to come in September. They are also doing a two-year work plan. Ecology asked if design and PT would kick off in September. ORP stated that in September they will start the authorization to proceed, including looking at the technical issues, PRs, CAPs, and level 1 findings. Right now they are working on getting a plan of what needs to be done until September. Ecology wanted to know if there was going to be a full design and operation review. ORP stated not at this time. Ecology stated its concern and would like it passed on.

Ecology asked what the schedule is for the large scale testing. ORP will provide the scheduling information to Ecology.

High-Level Waste Facility - ORP reported that there is still structural civil build-out up there, working on walls and structural steel at the 58-foot and 77-foot level. Looking at pouring the first slab on the 58-foot level in early July and having a lot of the walls up soon. DOE is still reviewing the safety design strategy. Bechtel and DOE are meeting to work through it. Working more technical issues in HLW, including the HVAC and off-gas systems. BNI and DOE engineering are working on plans and those will be coming forward.

The design operability review report has been issued as official use only at this point and is being worked on to be released officially. Bechtel has seen it and responded and there's correspondence between DOE and Bechtel. They are doing limited production engineering with limits on procurement and construction being dependent on the SDS and finalizing level 1 CAPs. That decision should be coming in the next month or two. Ecology asked if procurement resumed. ORP stated that they haven't issued new procurements, except for a vendor to work with design. There are still procurements continuing that were never put on hold from two years ago.

Ecology asked when the PCM for the RLD system might be ready for review. ORP stated that Bechtel submitted a JCDPI and they will respond to that. DOE nuke safety is finishing their evaluation, so they can't finalize the design changes because it's out of alignment with PDSA. They can't move forward with the design package to Ecology until then. Ecology asked how engineering and design could move forward without a safety design strategy. ORP responded that there's coordination between nuke safety and DOE management on being able to move forward with the RLD system. Ecology is still concerned and would like information or a presentation on this issue. ORP stated this is one reason it's very limited at production engineering. Until the SDS is approved, they won't get full production engineering. Ecology would like this information to make sure the project moves forward smoothly.

ORP recognized that with RLD, it's going to take a lot to do the permit change. Ecology asked when that would happen and ORP stated their task due date is middle of July, so it will be a while before Ecology gets that. Ecology asked if the design drawings are being worked on that this time. ORP stated that Bechtel has done preliminary design work. They can't finalize it until the JCDPI is complete and that it's going to be a while.

Ecology found on a doc search there was some engineering design review information that was recommended for the design authority and wanted to know how that plays out going forward with the HLW authorization to proceed. ORP would like Ecology to send the document to them so they can look at it. Ecology noted that it pulls together the FMECA review and the ISI and the erosion-corrosion and the recommendations that come from that and wanted to know if the OUO will have the design operability review. ORP stated that probably does have some of it and the level 1s and tech issues and that they will probably end up combined to make sure Bechtel is incorporating all of it. Ecology asked if the design operability will have all the results from all the studies. ORP stated probably only the design review, not the tech issues.

Ecology would like all of the information rolled together before they move forward with RLD especially because there are ongoing issues and recommendations and it would be helpful before they move forward with design changes. ORP noted that the Management Implementation Plan should roll all of that together and teams are meeting about that. Ecology stated that approvals are being undertaken by DOE of what Bechtel has presented, but there is still no place they can go to make sure all of the issues are being considered as design and engineering move forward. Ecology would like DOE to present on this and would like to know that everything is being considered and approved before being incorporated into the design and engineering and would like to see all the components come together. It was stated that the HLW report on design review is supposed to be issued in the OUO release in July.

Ecology asked if ORP was confident that all of the initiatives on the RLD system have been touched on. ORP stated that the RLD redesign is very specific and in two phases. They are looking at the vessels and the pipes going through the vessels at this time.

Low-Activity Waste Facility - Overall is 69 percent complete. Bechtel submitted two proposals; 1 for LBL and 2.1 for direct feed LAW design scope only. The proposal didn't include through commissioning and so that will be coming the end of this month. Also, it was requested that shared services no longer be a separate account distributed among the facilities, so that will come later this month. Will not move forward with the proposals until there is a full picture.

Direct Feed LAW - ORP has held value engineering sessions on looking at effluent management; facilities requirements; and the best way to route the waste routing lines. ORP gave direction to go the ICD 19 point of connection, but there might be better ways of doing the routing, looking at the construction operation going on in Pretreat and HLW while LAW is operating. Bechtel is working on this and haven't seen the final outcomes yet. Ecology asked what changes will occur with the LAW facility. ORP responded that they're proposing to add a pit outside the building that would be where the valving and everything would be done and the effluent facility where the chemical skid was, but that the value engineering studies are looking at the best ways to do this.

Ecology asked if new lines are being installed. ORP stated that they are looking at all the different routings. The lines from Tank Farms to the connection point are in place, but may or may not be used. Ecology asked if there is a return line back to Tank Farms, assuming all the

effluent will have to go there and be evaporated. ORP stated there is one return line and they are looking at an option of going to EFT, too. The schedule to narrow down the options is mid-July and they will present on it. Discussion was had regarding effluent storage and return lines and ETF's current capabilities.

Ecology asked a related question regarding LAW undergoing a design operability review and when they would see that. ORP responded that will be in the September time frame. Ecology would like to be briefed before then and would like to be more involved.

It was reported that 90 percent of cable was issued. A path forward was determined and that is to relocate the ammonia skid one wall over to a separate room for safety reasons. Soldier blocks were installed on the south wall of both melters. Work is continuing on the melters. Ecology asked about the schedule of completion for that work, and ORP responded by the end of the year on the internal melter refractory and the lids are after. Melter 1 should be done by the end of the year, a month later for melter 2.

Ecology asked if the ICD 19 protocol had been updated to accommodate the change in the process flow for direct feed LAW. ORP responded that ICD 30 and 31 are in the process of being developed. ICD 19 deals with solid waste aspect. They are in drafts, but there is no schedule at this time. In a meeting scheduled for the 25<sup>th</sup>, ORP will report further on the ICDs.

Balance of Facilities - 60 percent completion overall. Efforts are focused on commercial grade dedication of the emergency turbine generator. Quality design engineering and procurement organizations are working to review their CDD strategy on how to dedicate the emergency turbine generator.

Construction continues on the Glass Former Facility with emphasis on installation of electrical commodities, as well as construction of the foundation for the Standby Diesel Generator and the delivery pad. Flush mod spool has been installed in the Chiller Compressor Plant, and they continue to install branch connections for underground piping. They're working on the Non-Radioactive Liquid Waste Disposal system, going through the punch list, getting ready for turnover.

Ecology asked about the branch connection for underground piping system. ORP wasn't sure exactly which systems are affected, other than the fire service water, but specifically for the standby diesel generator, they run the fire water from the main through the branch line to the facility. As they continue construction of facilities that will take demands on whichever underground piping system, they will continue to install branch connections.

Analytical Laboratory - Overall completion is 74 percent. Engineering and construction efforts continue to go on the RLD vessels. Bechtel is working on finishing up repairs this week. They will then move to hydrostatic testing and closing out documentation to get the vessels certified with the repair stamp. Ecology asked when the anticipated date is for that completion. ORP wants to follow up with Ecology and discuss the schedule for completion on these. There's

been a significant scope increase on the repairs. They got to the last major repair item, which was the seam indications on the bottom of the vessels, and coming out they noticed a suction support, a non-structural part of the vessel, that they had to address. The stack discharge monitoring cabinets have been delivered. They're working to make installation of the SDJ system and cable pulls and terminations continue as they work to somewhat completion.

Ecology wants a get-together just so everybody understands where the process is and to talk over what the certification of closure package is going to look like, make sure everything has been completed to IQRPE satisfaction. Ecology then asked about the suction support again. ORP stated that what they were calling the kickstand was not attached to the vessel, which is not required by design, but the concern was with corrosion possibly.

Ecology asked if there was an issue with mixed base shipments from ETF and WTP, deferred waste. It was noted this was an issue last year. ORP responded that this is a continuation from last year, and they are just starting the cleanup, as they had to work out a path with Department of Health and they also couldn't do the cleanup in high winds.

#### **Action items**

There was a question on the vessel sizes for PT, if a decision has been made on the standard vessel size yet, and to include how they are going to place them. Ecology wants a schedule for the full-scale testing. Presentation on the HLW safety design strategy initiative and closeout of that. Ecology wants a presentation on how to incorporate and figure out all these different issues.

Ecology wanted to note that setting the standard size vessels, each vessel will need its own penetration to the hot tub, otherwise if one tank leaks, all of them are leaking. Ecology would also like a view of the new placements. ORP thought that some of that was included in the full-scale testing. Ecology offered that there are parallel efforts going on and some of the initial conceptual stuff is going forward and that's why Ecology wants to understand quickly what this is going to look like.

Discussion was had regarding meetings overlapping and possibly another conflict in September. It was stated that these are important meetings and could the project managers work out different dates for them.

**ORP TPA Project Managers' Monthly (PMM) Meeting  
June 19, 2014  
2440 Stevens Center  
Richland, Washington  
Meeting Minutes**

**Attachment A: Agenda, AR List, Agreements, Issues, and Action Items**

**(5 pages including this cover sheet)**

**June 19, 2014 ORP Project Managers' Monthly Meeting**  
**2440 Stevens Center Richland, Washington**  
**Room 1600, 9:00AM-11:30AM**

**AGENDA**

**1.0 Recent Items Entered/To Be Entered into the TPA Administrative Record**  
(see <http://pdw.hanford.gov/arpir/index.cfm/advancedSearch>)

<b>Item Description</b>	<b>TPA/CD Topic Milestone Tie</b>	<b>TPA Admin Record – EDMC File Number</b>
May 2014 TPA Monthly Summary Report	All	1225027
May 2014 CD Monthly Summary Report	All	1225026
Ecology Response Letter to ORP's notification that ORP will not submit a One-Time Hanford Tank Waste Supplemental Treatment Technologies Report, ECY letter 14-NWP-110, dated 05/29/2014	M-062-40ZZ	1226081
Meeting Minutes for DST Emergency Pumping Guide, dated 05/14/2014	DST Emergency Pumping Guide	1226086
Tank Waste Retrieval Work Plan RPP-22393, Rev. 7, Notice 2014-02, approved on 06/05/14	TWRWP	1226087

**2.0 Agreements, Issues, Action Items**

**3.0 Review of the ORP Project Summary**

- Additional 242-A Evaporator status now included in TPA Monthly Summary Report

**4.0 Key Documents List**

**Upcoming Meetings**

- The July 2014 ORP TPA Project Managers' Monthly Meeting is scheduled for Thursday, July 17, 2014 from 9:00-11:30AM in ORP Room 1600.

## ORP/Ecology TPA and CD Agreements, Issues, and Action Items for June 2014

### Agreements:

1. ORP will continue to meet with ECY to discuss funding and work priorities per TPA Paragraphs 148/149 process.
2. Per an ECY standing request, ORP agrees to include any written directives given by DOE to the contractors for work required by the CD in future Semi-Annual CD Reports (see CD Section IV-C-1-e, page 8).
3. The ORP and ECY PMs have developed, signed, and entered an outline for the CD Tank Completion Certification into the TPA Administrative Record. Senior management will continue to be briefed if any follow-on actions arise.

### Issues:

1. Ecology has a concern with WTP data being reported exclusively in the CD Monthly Summary Report as the current CD reporting process does not allot ECY early review time of the CD Monthly Summary Report. ORP and ECY have raised this concern for discussion at the Senior Management levels.
2. AY-102 Primary Tank Leak: Tank 241-AY-102 (AY-102) is an approximate one million gallon underground double-shell tank (DST) containing mixed radioactive and hazardous waste located in the 241-AY Tank Farm (AY Farm). In August 2012, a leak to the annulus was detected. DOE submitted a pumping plan & revised pumping plan to Ecology, both of which were rejected. On March 21, 2014, Ecology issued Administrative Order Docket #10156 against DOE and WRPS alleging violations of 40 CFR 265.196 and identifying 14 action items that DOE/WRPS must comply with including the pumping of AY-102. On April 18, 2014, DOE and WRPS filed Notices of Appeal and Motions to Stay the Administrative Order with the Washington State Pollution Control Hearings Board (PCHB). A Prehearing Conference was held on May 8, 2014. The legal issues of the case were identified and a case schedule has been set based upon a hearing date in October 2014. DOE will continue working with Ecology on the path forward for this tank and is committed to safely managing the tank farms to protect the workers, public and the environment.
3. T-111 and Other Single Shell Tank Level Decreases: ORP and WRPS have determined that 19 of the 20 single shell tanks showing decreased liquid levels at the Hanford Site are not actively leaking. Evaluation documents are available online at: <http://www.hanford.gov/page.cfm/SingleShellTankEvaluations>

<b>Tank Farms Action Items</b>							
#	Action ID	Date Initiated	Action	Action Status	Updates / Needs for Closure	Actionee(s)	Date Closed
1	TF-14-03-01	03/24/14	ORP will set up additional meetings with ECY to discuss the Low Activity Waste Pretreatment System (LAWPS) and the Direct Feed LAW Initiative.	<b>Open.</b>	A meeting was held to brief the ECY WTP team on IPS (now LAWPS) and DFLAW on 12/17/13.	Pfaff / Harp	

**ORP/Ecology TPA and CD Agreements, Issues, and Action Items for June 2014**

<b>Tank Farms Action Items</b>							
<b>#</b>	<b>Action ID</b>	<b>Date Initiated</b>	<b>Action</b>	<b>Action Status</b>	<b>Updates / Needs for Closure</b>	<b>Actionee(s)</b>	<b>Date Closed</b>
2	TF-14-03-02	03/24/14	ECY would like more information on the Tank Waste Characterization and Staging Facility (TWCS) and the Direct Feed HLW Initiative when it becomes available.	<b>Open.</b>	ORP provided an initial email with a description of TWCS activities to ECY on 03/24/14.	Wheeler / Wendell / Harp	
3	TF-14-02-02	02/18/14	ECY would like a schedule and project management plan (if available) for the closure of WMA C.	<b>Open.</b>		Kemp	
4	TF-14-01-01	01/28/14	ORP and ECY will work to complete revisions on the Hose-In-Hose Transfer Line Management Plan (RPP-12711) Revision 7. After Rev 7 is approved a TPA Chg Pckg will be submitted to make this a primary document.	<b>Open.</b>	ECY and ORP will meet to discuss final comments for resolution targeted for completion by mid-June.	Kemp / Fox / Alzheimer	
5	TF-13-12-01	12/19/13	ECY will provide a list of team members and their roles and responsibilities to ORP so that ORP can provide all applicable invitees to future meetings.	<b>Open.</b>		Lyon / McDonald	
6	TF-13-02-03	02/21/13	ECY and ORP will continue to meet at the project manager level to discuss work on the WMA C PA and other options for M-045-61/-62/-82.	<b>Open.</b>	ECY proposal presented to ORP on 03/26/14. ORP provided redline-strikeout comments to ECY on 04/22/14.	Kemp / Eberlein / Mathey	

**ORP/Ecology TPA and CD Agreements, Issues, and Action Items for June 2014**

<b>WTP Action Items</b>							
<b>#</b>	<b>Action ID</b>	<b>Date Initiated</b>	<b>Action</b>	<b>Action Status</b>	<b>Updates / Needs for Closure</b>	<b>Actionee(s)</b>	<b>Date Closed</b>
1	WTP-14-04-01	04/22/14	ORP and ECY have a placeholder action to hold a comprehensive briefing/discussion on the PT efforts by August 1, 2014.	<b>Open.</b>		Delmar Noyes	
2	WTP-13-04-03	04/23/13	ORP will update ECY on a monthly basis on the path forward for the TCO vendor concerns.	<b>Open.</b>	On-going, status given monthly.	Jeff Bruggeman	
3	WTP-13-04-01	04/23/13	ORP will meet with ECY to discuss status on the RVP Wave I and path forward for RVP Wave II.	<b>Open.</b>	Wahed took the action to follow-up with Gary and close with ECY.	Gary Olsen / Wahed Abdul	

**ORP TPA Project Managers' Monthly (PMM) Meeting  
June 19, 2014  
2440 Stevens Center  
Richland, Washington  
Meeting Minutes**

**Attachment B: List of Attendees**

**(2 pages including this cover sheet)**

**Sign In Sheet**  
**ORP TPA Project Managers' Monthly Meeting**  
**June 19, 2014**

NAME	ORG	PHONE
Joni Grundsteff	DOE-ORP	376-6202
<del>Toni Kall</del>	<del>DOE-ORP</del>	<del>376-4139</del>
JESSICA THOMPSON	DOE-ORP	376-9700
Dallin Jensen	DOE-ORP	376-9706
Jeremy Johnson	ORP	376-1866
James Lynch	DOE-ORP	376-4170
<del>Jan M... ..</del>	EW	372-7988
JEFF Lyon	WA Ecology	539-1996
Steve Pfaff	ORP	376-2188
WENDELL WRZESINSKI	ORP	713-4488
Patrick Landa	DOE-ORP	376-1696
Bryan Trimberger	DOE-ORP	376-2674
Jeff Bruggeman	DOE-ORP	438-0444
Arlene Tortoso	Ecology	372-7556
Nitya Chandran	Ecology	372-7931
Annette Carlson	Ecology	372-7897
Mandy Jones	Ecology	372-7916
Bret Peck	BNI-WTP	371-4498
Shawny Simon	ODOE	(CA) 240-0100
Robbie Biyani	ECY	509 372-7884

**ORP TPA Project Managers' Monthly (PMM) Meeting  
June 19, 2014  
2440 Stevens Center  
Richland, Washington  
Meeting Minutes**

**Attachment C: Presentation Materials**

**ORP TPA Project Summary  
(20 pages)**

**And**

**ORP Consent Decree Project Summary  
(22 pages)**

**And**

**Working ORP Key Documents List  
(2 pages)**

**(45 pages including this coversheet)**



**FINAL**

Office of River Protection

Tri-Party Agreement

Monthly Summary Report

June 2014



**Office of River Protection  
Tri-Party Agreement Milestone Review**

**June 2014 (Monthly Summary Report/Project Earned Value Management System reflects  
April 2014 information)**

<b>Page</b>	<b>Topic</b>	<b>Leads</b>
1	Administrative Items/Milestone Status	James Lynch/Dan McDonald/Jeff Lyon
2	System Plan; M-062-40	DaBrisha Smith/Jeff Lyon/Dan McDonald
3	Acquisition of New Facilities; M-090-00 and M-047-00	Janet Diediker/Jeff Lyon/Dan McDonald
4	Supplemental Treatment and Part B Permit Applications; M-062-00, M-062-21, M-062-30, and M-062-45	Steve Pfaff/Jeff Lyon/Dan McDonald
5	242-A Evaporator Status	Ron Koll/Jeff Lyon
6	Double-Shell Tank System Update	Jeremy Johnson/Jeff Lyon
6	Single-Shell Tank Integrity Assurance; M-045-91	Jeremy Johnson/ Jim Alzheimer
8	In Tank Characterization and Summary	Billie Mauss/Michael Barnes
10	Tank Operations Contract Overview	Kathy Higgins/Jeff Lyon
16	Single-Shell Tank Corrective Action; M-045-22, M-045-50 series, M-045-60 series, and M-045-92	Chris Kemp/Jeff Lyon
17	Single-Shell Retrieval and Closure Program Tri-Party Agreement (TPA) Milestones Status; M-045-00 series	Chris Kemp/Jeff Lyon
19	Tank Waste Retrieval Work Plan Status	Chris Kemp/Jeff Lyon
20	Tank in TPA Appendix H, Status Tank Retrievals with Individual Milestones	Chris Kemp/Jeff Lyon
CD	Waste Treatment and Immobilization Plant (WTP) Overall TPA Summary and Milestone Status; see the U.S. Department of Energy, Office of River Protection Consent Decree 08-5085-FVS Monthly Summary Report for WTP Facility-specific information	Delmar Noyes/Dan McDonald

CD = Consent Decree 08-5085-FVS

Milestone	Title	Due Date	Completion Date	Status
<b>Fiscal Year 2014</b>				
M-062-40C	Select a Minimum of Three Scenario's for the System Plan	12/15/2013	12/12/2013	Completed
M-062-01AB	Submit Semi-Annual TPA Project Compliance Report	01/31/2014	01/31/2014	Completed
M-045-86C	Submit Retrieval Data Report to Ecology for C-104	03/21/2014	02/18/2014	Completed
M-045-22-T02	Submit Results of Vadose Zone Characterization of 241-U to Ecology	04/30/2014	02/20/2014	Completed
M-045-86F	Submit Retrieval Data Report to Ecology for C-108	05/01/2014	11/27/2013	Completed
M-045-86G	Submit Retrieval Data Report to Ecology for C-109	06/04/2014	03/13/2014	Completed
M-045-22-T03	Submit SX Soil Desiccation/Contaminate Removal Tech Results to Ecology	07/31/2014	05/15/2014	Completed
M-045-56J	Ecology and DOE Agree, at a Minimum, to Meet Yearly (by July)	07/31/2014		On Schedule
M-062-01AC	Submit Semi-Annual TPA Project Compliance Report	07/31/2014		On Schedule
M-045-91B-T01	Provide Ecology report on the Concrete Core from Tank A-106 or alt	09/30/2014		On Schedule
M-045-22-T01	Submit Results of Vadose Zone Characterization of 241-TX to Ecology	09/30/2014		On Schedule
M-047-07	CD-1 for Secondary Liquid Waste Treatment and CR for CD-2 to Ecology	09/30/2014		To Be Missed
M-090-13	CD-1 for Interim Hanford Storage Project and CR for CD-2 to Ecology	09/30/2014		To Be Missed
M-045-22	Review M-045-22-T03 Report and Determine Path Forward	09/30/2014		On Schedule
<b>Fiscal Year 2015</b>				
M-062-40D	Submit System Plan	10/31/2014		On Schedule
M-062-40ZZ	Submit One Time Tank Waste Supp Treatment Technologies Report	10/31/2014		On Schedule
M-045-91G-T03	Provide AOR Final Doc. for SSTs on 1,000,000 Gallon Tanks	10/31/2014		On Schedule
M-045-91F-T04	Provide Report on 100-Series SSTs as having Leaked in RPP-32681	12/26/2014		On Schedule
M-045-61	Phase 2 RCRA Facility Investigation/Corrective Measures Study	12/31/2014		To Be Missed
M-045-86H	Submit Retrieval Data Report to Ecology for C-110	01/29/2015		On Schedule
M-045-91G-T04	Provide AOR Final Doc. for SSTs on 55,000 Gallon Tanks	01/30/2015		On Schedule
M-045-91F-T02	Provide Report of Liner Failures for SSTs	03/31/2015		On Schedule
M-062-45-T01	Comp. Neg's 6-Mo After Last Issuance of System Plan	04/30/2015		On Schedule
M-062-45-ZZ	Negotiate a One Time Supplemental Treatment Selection	04/30/2015		On Schedule
M-062-45-ZZ-A	Convert M-062-31-T01 Thru M-062-34-T01 to Interim Milestones	04/30/2015		On Schedule
M-045-91F	Provide Summary Conclusions Report on Leak Integrity	06/30/2015		On Schedule
M-045-62	Phase 2 Corrective Measures Implementation Work Plan For WMA-C	06/30/2015		To Be Missed

Milestone	Title	Due Date	Completion Date	Status
<b>Fiscal Year 2015 Continued</b>				
M-045-92O	Barrier 3 Design/Monitoring Approval From Ecology	06/30/2015		On Schedule
M-045-91G	Provide Summary Conclusions Report of AOR for SSTs	07/28/2015		On Schedule
M-045-56K	Ecology and DOE Agree, at a Minimum, to Meet Yearly (By July)	07/31/2015		On Schedule
M-045-91H	Submit Change Pkg (if necessary) to est. Additional Milestones	07/31/2015		On Schedule
M-045-82	Submit Comp. Permit Modification Request for Tiers 1,2,3	09/30/2015		To Be Missed

AOR = Analyses of Record.

CD-1/-2 = critical decision-1/-2

CR = change request.

DOE = U.S. Department of Energy.

Ecology = Washington State Department of Ecology.

RCRA = Resource Conservation and Recovery Act.

SST = single-shell tank.

TPA = Tri-Party Agreement.

WMA-C = Waste Management Area C.

### System Plan

**M-062-40C, Select a minimum of three scenarios that will be analyzed in the system plan, Due: December 15, 2013, Status: Completed on December 12, 2013.**

**M-062-40D, Submit a system plan describing the disposition of all tank waste managed by ORP, Due: October 31, 2014, Status: On schedule.**

**M-062-45-T01, Every six years, within six months after last revision of the System Plan, negotiate tank waste retrieval sequencing, Due: April 30, 2015, Status: On schedule.**

### Significant Past Accomplishments:

- On October 24, 2013, Washington State Department of Ecology (Ecology) and U.S. Department of Energy (DOE), Office of River Protection (ORP) signed the Tri-Party Agreement (TPA) Change Control Form M-62-13-02, moving out the due date for this embedded milestone from October 31, 2013 to December 15, 2013, for selection of three, or more, scenarios to be modeled in the System Plan.
- Ecology has defined five scenarios to be analyzed in System Plan 7. Washington River Protection Solutions LLC (WRPS) has included a description of each scenario in the Selected Scenarios for the River Protection Project System Plan, Rev. 7 document released to ORP on December 4, 2013. See joint ORP and Ecology letter 13-TPD-0070, dated December 12, 2013, for completion and description of M-062-40C scenarios.
- Detailed assumption review was completed, and has been approved by Ecology.
- On February 11, 2014, DOE-ORP transmitted a letter (14-TPD-0003) to Washington River Protection Solutions LLC in response to letter (WRPS-1400313) to approve the use of Ecology's Appendix B, "Key Assumptions and Success Criteria," for the ORP 11242, River Protection Project System Plan, Rev. 7.
- On February 13, 2014 Washington State Department of Ecology presented the five selected scenarios to the Hanford Advisory Board Tank Waste Committee.
- Ecology, DOE-ORP and WRPS reviewed and provided comments for sections 1 and 2 of the System Plan 7 during the week of February 17, 2014.

7. Ecology, DOE-ORP and WRPS reviewed and provided comments for section 3 of the System Plan 7 during the week of March 21, 2014.
8. Ecology, DOE-ORP and WRPS reviewed and provided comments for Appendix C of the System Plan 7 during the week of April 1, 2014.
9. During the week of April 28, 2014, WRPS and DOE-ORP facilitated meetings for Ecology to define detail spending assumptions for Case 5.

**Current:**

- Currently modeling Cases 1 through 5.

**Significant Planned Actions in the Next 6 Months:**

Ecology will continue to further define the five selected scenarios distinguishing assumptions.

- Complete HTWOS modeling of Ecology defined Cases 1 – 5.
- Complete DRAFT writing of non-technical sections for System Plan 7 document

**Issues:** None.

### **Acquisition of New Facilities**

**M-090-13, Submit Critical Decision-1 for Interim Hanford Storage Project and TPA Change Request for CD-2 to Ecology, Due:** September 30, 2014, Status: To be missed. Created by TPA Change Control Form M-90-12-02, signed by ORP and Ecology on November 19, 2012, to “Submit to Ecology, a Conceptual Design Report Package (Critical Decision-1) for the Interim Hanford Storage Project (storage of the first two years of Hanford Site Immobilized High-Level Waste from WTP operations) and a TPA Change Request (in accordance with TPA Action Plan Section 12.0) to submit to Ecology, a Preliminary Design Report package (Critical Decision-2).”

**M-090-00, Acquire/Modify Facilities for Storage of Immobilized High-Level Waste (IHLW), Due:** December 31, 2019, Status: On schedule.

**M-047-07, Submit CD-1 for Secondary Liquid Waste Treatment and Change Request (CR) for CD-2 to Ecology, Due:** September 30, 2014, Status: To be missed. Created by TPA Change Control Form M-47-12-02, signed by ORP and Ecology on November 19, 2012, to “Submit to Ecology, a Conceptual Design Report package (Critical Decision-1) for the Secondary Liquid Waste Treatment Project and a TPA Change Request (in accordance with TPA Action Plan Section 12.0) to submit to Ecology, a Preliminary Design Report package (Critical Decision-2).”

**M-047-00, Complete Work Necessary to Provide Facilities for Management of Secondary Waste from the Waste Treatment and Immobilization Plant (WTP), Due:** December 31, 2022, Status: On schedule.

**Significant Past Accomplishments:** None.

**Significant Planned Actions in the Next 6 Months:** None.

**Issues:** The above projects directly support startup of the WTP PT and HLW Facilities.

## Supplemental Treatment and Part B Permit Applications

**M-062-40ZZ, Submit a one-time Tank Waste Supplemental Treatment Technologies Report if a supplemental treatment technology is proposed other than a second Low-Activity Waste (LAW), Due: October 31, 2014, Status: On Schedule.\***

**M-062-45ZZ (designation for M-062-45 item #3), Negotiate a one-time supplemental treatment selection, Due: April 30, 2015, Status: On schedule. Negotiations are not yet underway.**

**M-062-45ZZ-A, Convert M-062-31-T01 through M-062-34-T01 to Interim Milestones, Due: April 30, 2015, Status: On schedule.**

**M-062-31-T01, Complete final design and submit Resource Conservation and Recovery Act Part B permit modification request, Due: April 30, 2016, Status: On schedule.**

**M-062-32-T01, Start construction of supplemental vitrification treatment facility and/or WTP enhancements, Due: April 30, 2018, Status: On schedule.**

**M-062-33-T01, Complete construction of supplemental vitrification treatment facility and/or WTP enhancements, Due: April 30, 2021, Status: On schedule.**

**M-062-45XX, No later than December 31, 2021, the DOE and Ecology shall complete negotiations to establish a mechanism that will apply to resolve future disputes regarding the determinations in M-062-45, paragraphs 4 and 5, Due: December 31, 2021, Status: On schedule.**

**M-062-34-T01, Complete hot commissioning of supplemental vitrification treatment facility and/or WTP enhancements, Due: December 30, 2022, Status: On schedule.**

**M-062-21, Annually submit data that demonstrates operation of the WTP, Due: February 28, 2023, Status: On schedule.**

**M-062-00, Complete Pretreatment Processing and Vitrification of High-Level Waste and LAW Tank Wastes, Due: December 31, 2047, Status: On schedule.**

### Significant Past Accomplishments:

\*Per ORP letter 14-TF-0052, signed by ORP on May 6, 2014 and provided to Ecology on May 7, 2014, ORP documented the ORP/Ecology discussions for the One-Time Hanford Tank Waste Supplemental Treatment Technologies Report and that ORP does not intend to submit this report. ORP received Ecology's response letter, 14-NWP-110, on May 29, 2014.

**Significant Planned Actions in the Next 6 Months: None.**

**Issues: None.**

**242-A Evaporator Status**  
(previously reported under Milestone M-48, which has been closed out)

**242-A Evaporator Status:**

The 242-A campaign strategy for fiscal year (FY) 2010 through FY 2015 depicted in the following table has been updated based on ORP-11242, *River Protection Project Plan* and ongoing schedule integration efforts.

Fiscal Year	Campaign No.	Feed Source	Slurry Tank	Comments
FY 2010	10-01	AW-106	AW-106	Campaigns 10-01/10-02 were performed back-to back starting in late August and completing in early October 2010. Campaign 10-02 was an acceleration of previously planned Campaign 11-01.
FY 2010	10-02	AW-106	AW-106	
FY 2011	NA	NA	NA	No campaign conducted in FY 2011 due to ongoing 242-A and tank farm facility life extension and <i>American Recovery and Reinvestment Act</i> funded upgrades.
FY 2012	NA	NA	NA	No campaign conducted in FY 2012 due to ongoing 242-A and tank farm facility upgrades and revision to the 242-A Documented Safety Analysis.
FY 2013	NA	NA	NA	No campaigns to be conducted in FY 2013 due to ongoing 242-A and tank farm facility upgrades and revision to the 242-A Documented Safety Analysis.
FY 2014	13-01	AP-107	AP-107	Estimated start late August to early September 2014. Requires two passes to achieve waste volume reduction.
FY 2014	14-01	AW-106	AP-107	Estimated start late September to early October 2014.
FY 2015	14-02	AZ-102	AP-103	Estimated start mid to late October 2014.
FY 2015	15-01	AW-106	AP-103	Estimated start November 2014.
FY 2015	15-02	AZ-102	AP-103	Estimated start March 2015.

FY = fiscal year.

NA = not applicable.

On May 7, 2014, WRPS declared readiness to restart 242-A. On that same day, a decision was made to implement the Safety Basis changes at the 242-A in series with the Independent Corporate Readiness Assessment (RA). This pushed out the RA from May 12, 2014, to July 7, 2014.

During the month of May 2014, the 242-A Slurry Pump, PB-2, rupture disk hardwire interlock relay was reworked and replaced; the K1 control power modifications were completed; work was initiated on the replacement of Valve H-31 and the Steam Trap A-8; the Level Detector, LEL-C103-1, replacement on the Steam Condensate Weir Box Overflow was completed; and preparations began for the planned preventive maintenance work during the Electrical Power Outage. In addition, staff supported the joint EPA/Ecology compliance inspection at the 242-A Evaporator Facility.

## Double-Shell Tank System Update

- AZ-01A Gear Actuator Replacement completed March 3, 2014, four months ahead of schedule, in support of upcoming AZ-102 recirculation
- Encasement pressure checks and National Association of Corrosion Engineers (NACE) inspections have been completed and successfully passed the acceptance criteria at AP-01A pit for waste transfer lines SN-611 and SL-511, AP-03A for waste transfer lines SN-613 and SL-613, and at AP-04A pit for waste transfer lines SN-614 and SL-514. All NACE inspections and encasement pressure checks of active waste transfer lines for FY14 have been completed.

### Ultrasonic Testing

- Completed the UT on AP-104 and are in the process of releasing RPP-RPT-56230. The inspection found no reportable thinning, pitting, or linear indications.
- Started data collection of AP-106.
- Initiated procurement of the Electro Magnet Acoustic Transducer (EMAT) equipment.

### Visual Inspection

- Initiated weekly inspections of AY-102 Risers 77, 83, and 87.
- Initiated monthly comprehensive inspection of AY-102 annulus

### Waste Transfers

- AN-101 to AP-104 transfer of 42,460 gallons completed 5/13/14
- AN-101 to AP-104 transfer of 149,187 gallons completed 5/13/14

## Single-Shell Tank Integrity Assurance

**M-045-91G-T03, Provide to Ecology the structural analyses of record final documentation for single-shell tanks (SST) for 1,000,000 gallon tanks (A, AX, and SX Farms), Due: October 31, 2014, Status: On schedule.**

**M-045-91F-T04, Provide to Ecology, as a Hanford Federal Facility Agreement and Consent Order secondary document, a report on the 100-series SSTs, which have been or will be identified as having leaked in RPP-32681, Rev. 0, Due: December 26, 2014, Status: On schedule.**

**M-045-91G-T04, Provide to Ecology the structural analyses of record final documentation for SSTs for 55,000 gallon tanks (B, C, T, and U Farms), Due: January 30, 2015, Status: On schedule.**

**M-045-91B-T01, Provide Ecology a report containing the results and interpretation of testing and analysis, performed on the concrete core obtained from Tank A-106 or an alternate tank, Due: January 31, 2015, Status: On schedule.**

**M-045-91F-T02, Provide to Ecology as a Hanford Federal Facility Agreement and Consent Order secondary document a report evaluating the common factors of liner failures for SSTs that have leaked and will provide recommendations as appropriate, such as enhanced leak detection, monitoring, and mitigation, Due: March 31, 2015, Status: On schedule.**

**M-045-91F, Provide to Ecology a report (Summary Conclusions Report on Leak Integrity) summarizing and evaluating the information submitted under M-045-91F-T01 through M-045-91F-T04, Due: June 30, 2015 Status: On schedule.**

**M-045-91G, Provide a Summary Conclusions Report of Structural Analysis of Record for SSTs, Due: July 28, 2015, Status: On schedule.**

**M-045-91H, Submit a change package (if deemed necessary by DOE and Ecology) to establish additional milestones based on information obtained from the actions in the preceding M-045-91 series of milestones to date, Due: July 31, 2015, Status: On schedule.**

**M-045-91I, Provide to Ecology an Independent, Qualified, Registered Professional Engineer (IQRPE) certification of SSTs structural integrity for the remainder of the mission, or for such time as the IQRPE believes he/she can reasonably certify, Due: September 30, 2018, Status: On schedule.**

#### **Significant Past Accomplishments:**

- The leak cause and location analysis for TX-114 was presented to Ecology on 5/27/2014. Comments received from Ecology are being incorporated.
- In support of M-045-91G-T03, the TYPE IV analysis of record and tank-to-tank interaction analysis was issued for release.
- In support of M-045-91B-T01, field work for sidewall coring was completed on May 21, 2014. A total of 38.25 ft of core was retrieved. The core has been packaged awaiting shipment the week of May 25 for off-site testing. The core appearance was very good. Total vertical deviation of the coring hole was only about 9/16 inch.

#### **Significant Planned Actions in the Next 6 Months:**

- Issue the TYPE IV AOR and tank-to-tank interaction analysis to complete M-045-91G-T03.
- Obtain and ship the sidewall core from TK 241-A-106.
- Issue leak cause and location reports for T and TX farms.

#### **Issues:**

Issues with tank farm vapors have impacted the scheduled start of side-wall coring.

## In Tank Characterization and Summary

For the period from May 1 through May 31, 2014:

### Accomplishments:

- Completed RPP-RPT-48745, *Derivation of Best-Basis Inventory for Tank 241-C-107 as of April 1, 2014*, Rev 6.
- Completed RPP-PLAN-56969, *Sampling and Analysis Plan for Residual Waste Solids in Tank 241-C-112*, Rev 0.
- Completed RPP-PLAN-57235, *Tank 241-AP-106 Grab Sampling and Analysis Plan in Support of Waste Compatibility in Fiscal Year 2014*, Rev 0.
- Completed RPP-PLAN-57299, *Tank 241-AN-101 Grab Sampling and Analysis Plan at the Midpoint of Tank 241-C-102 Retrieval*, Rev 0.
- Completed 241-AY-102A Leak-Detection Pit liquid grab sampling per RPP-PLAN-55529 on May 7, 2014. Three- samples were received at the lab.
- RPP-RPT-57375, *Final Report for Tank 241-AY-102A Leak-Detection Pit Liquid Grab Samples, May 2014*, Rev 0, was released May 19, 2014.
- RPP-RPT-57238, *Final Report for Tank 102 Grab Samples Collected in March 2014 in Support of 219-S Transfer*, Rev 0, was released May 1, 2014.

### Planned Action within the Next 6 Months:

#### *Tank sampling:*

- 241-AY-101A LDP grab sampling (Sample #1) is currently scheduled for June 2014.
- 241-AY-102A LDP grab sampling (Sample #9) is currently scheduled for June 2014, sampling occurs monthly.
- 241-AP-106 Evaporator support sampling is currently scheduled for June 2014.
- Tank 241-AZ-102 grab sampling (Evaporator campaign 14-02) scheduled for August 2014.
- Tank 241-SY-102, 1<sup>st</sup> core sample (Riser #4) is currently scheduled for August 2014.
- Tank 241-C-111 process control grab sampling during hard heel dissolution is currently scheduled to start in August 2014.
- Tank 241-AN-101 for C-102 and C-112 retrievals planned for September 2014.
- Tank 241-AN-106 at 100% C-105 retrieval planned for September 2014.
- Tank 241-SY-102, 2<sup>nd</sup> core sample (Riser #20) is currently scheduled for September 2014.
- Tank 241-AW-106 (Evaporator campaign 14-03) planned for October 2014.
- Tank 241-C-112 clamshell or fingertrap sampling is currently scheduled for October 2014.
- Tank 241-C-107 Drag Sampler sampling is currently scheduled for November 2014.
- Tank 241-AZ-102 (Evaporator campaign 15-01) planned for November 2014.

***Best-Basis Inventory (BBI) updates:***

The following tanks have been identified for BBI updates in FY 2014 Quarter 3:

- 241-A-103
- 241-AN-101
- 241-AN-106
- 241-AP-104
- 241-AW-102
- 241-BX-101
- 241-BX-110
- 241-BY-101
- 241-BY-102
- 241-BY-103
- 241-C-104
- 241-C-108
- 241-C-109
- 241-C-112
- 241-S-111
- 241-SX-106
- 241-U-111

***Data Quality Objectives (DQO):***

None.

***Issues:***

None.

## TANK OPERATIONS CONTRACT OVERVIEW

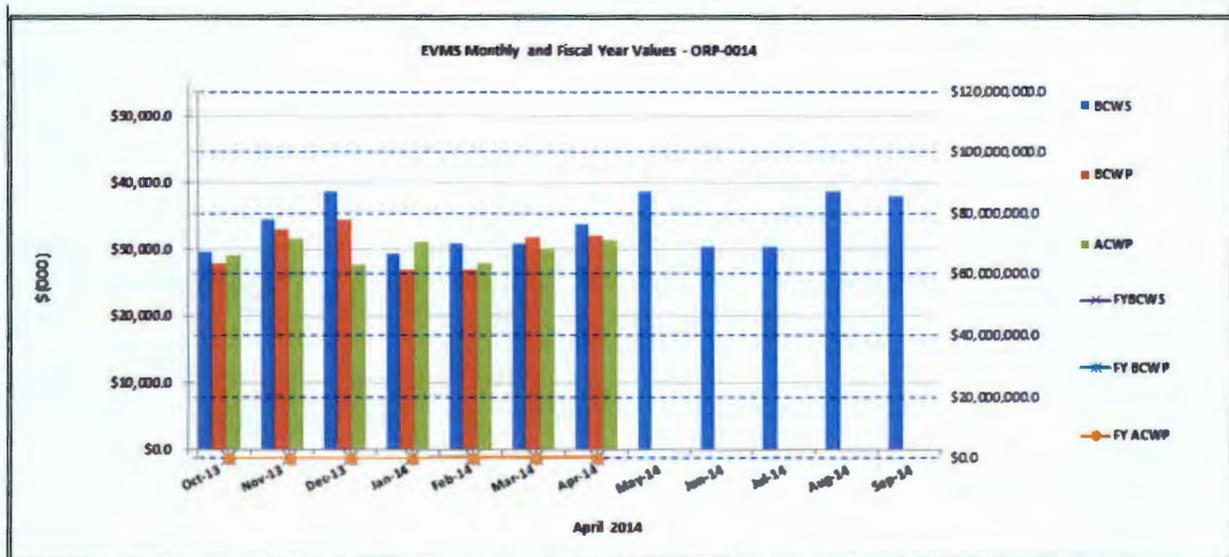
### Project Performance

The earned value performance reporting reflects the format, work breakdown structure reporting levels, and variance thresholds as agreed to with the tank operations contractor for monthly performance reporting. The earned value analysis is not intended to be a measurement of performance against existing TPA milestones.

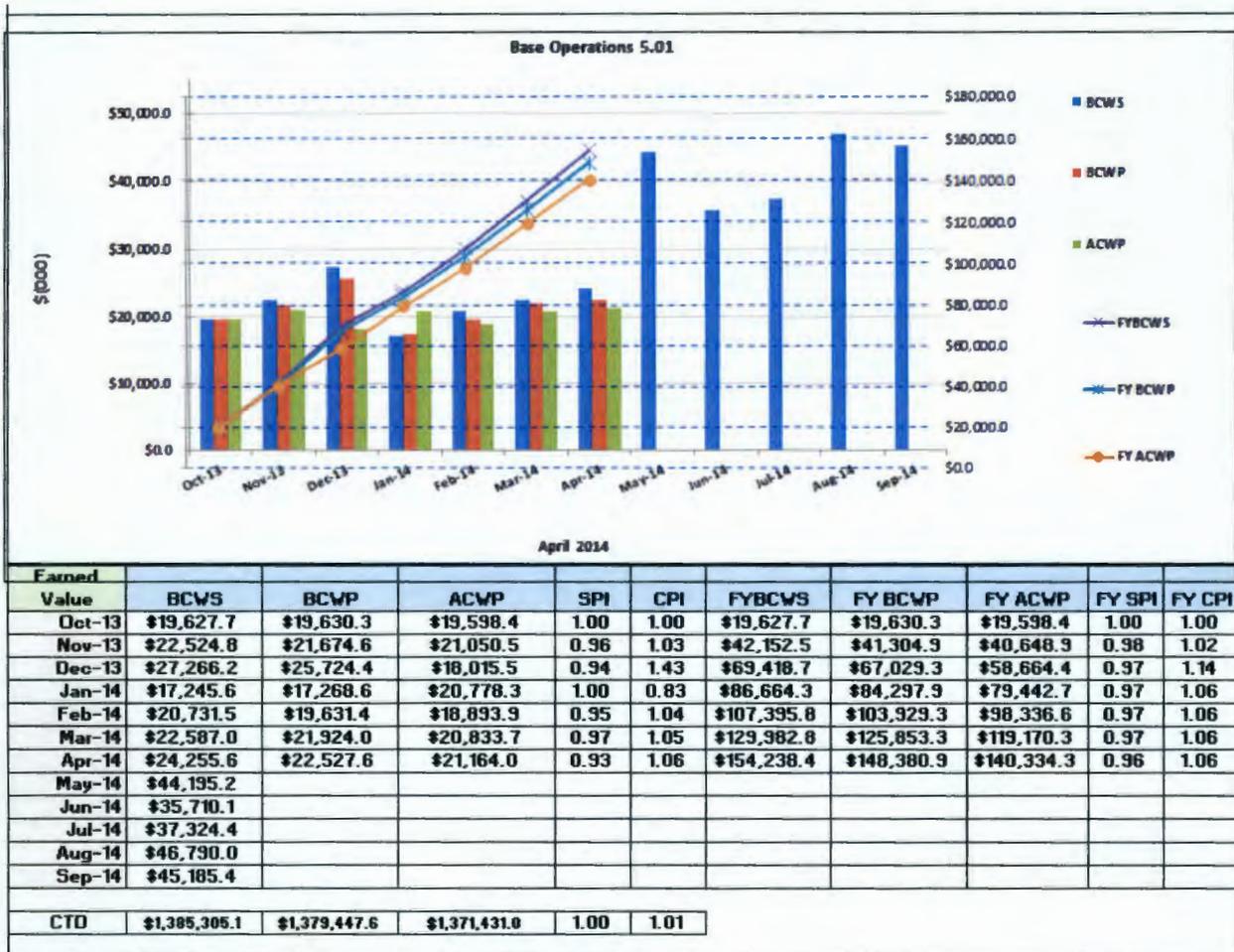
As of April 31, 2014, Washington River Protection Solutions LLC, the Tank Operations Contractor, has worked 43 days without a lost time workday injury and 42 days since the last recordable case. There were no recordable cases in the month of April.

	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC	EAC	VAC
CM	33,607.8	32,120.3	31,171.8	(1,487.4)	948.5	0.96	1.03			
FYTD	227,223.7	213,152.1	208,086.0	(14,071.7)	5,066.0	0.94	1.02	436,428.7	417,742.0	18,686.7
CTD	2,118,968.0	2,104,896.0	2,099,830.0	(14,071.7)	5,066.0	0.99	1.00	3,164,793.4	3,148,056.4	16,737.0

Red shaded cells indicates a SPI/CPI less than 0.90  
 Green shaded cells indicate a SPI/CPI between 0.90 and 0.99  
 Blue shaded cells indicate a SPI/CPI greater than or equal to 1.0.



Earned Value	BCWS	BCWP	ACWP	SPI	CPI	FYBCWS	FYBCWP	FYACWP	FY SPI	FY CPI
Oct-13	\$29,474.1	\$27,945.9	\$29,014.6	0.95	0.96	\$29,474.1	\$27,945.9	\$29,014.6	0.95	0.96
Nov-13	\$34,534.6	\$33,081.0	\$31,448.0	0.96	1.05	\$64,008.7	\$61,026.9	\$60,462.6	0.95	1.01
Dec-13	\$38,697.7	\$34,362.0	\$27,633.6	0.89	1.24	\$102,706.4	\$95,388.9	\$88,096.2	0.93	1.08
Jan-14	\$29,325.1	\$26,999.1	\$30,991.1	0.92	0.87	\$132,031.5	\$122,388.0	\$119,087.3	0.93	1.03
Feb-14	\$30,875.1	\$26,773.8	\$27,781.6	0.87	0.96	\$162,906.6	\$149,161.8	\$146,868.9	0.92	1.02
Mar-14	\$30,709.2	\$31,870.0	\$30,045.4	1.04	1.06	\$193,615.8	\$181,031.8	\$176,914.3	0.94	1.02
Apr-14	\$33,607.8	\$32,120.3	\$31,171.8	0.96	1.03	\$227,223.6	\$213,152.1	\$208,086.1	0.94	1.02
May-14	\$38,599.2									
Jun-14	\$30,214.0									
Jul-14	\$30,308.9									
Aug-14	\$38,682.2									
Sep-14	\$37,840.4									
<b>CTD</b>	<b>\$2,118,967.6</b>	<b>\$2,104,895.9</b>	<b>\$2,099,829.8</b>	<b>0.99</b>	<b>1.00</b>					



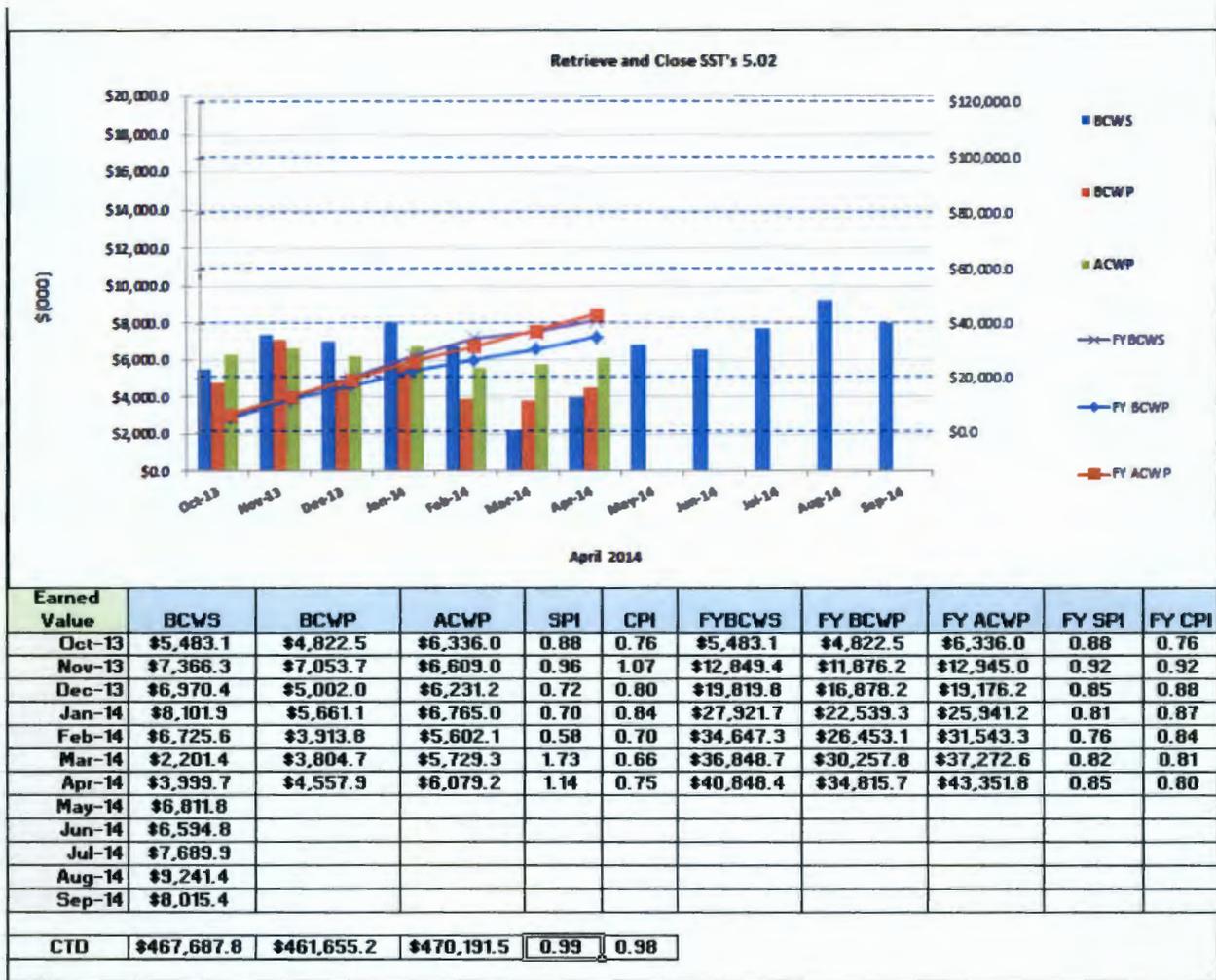
**Base Operations and Tank Farm Projects**

The current month unfavorable schedule variance (SV) of **(\$1,728K)** is due to the following:

- Delay in performing the 242-A Readiness Assessment
- Delay in performing the 242-A Evaporator Feed DST transfers and the AZ-102 Recirculation
- Delays in procurements for the 222-S laboratory equipment

The current month favorable cost variance (CV) of \$1,363K is primarily due to the following:

- Delay in filling vacancies, procurement of non-essential parts, equipment and material due to 30 day funding allotments.



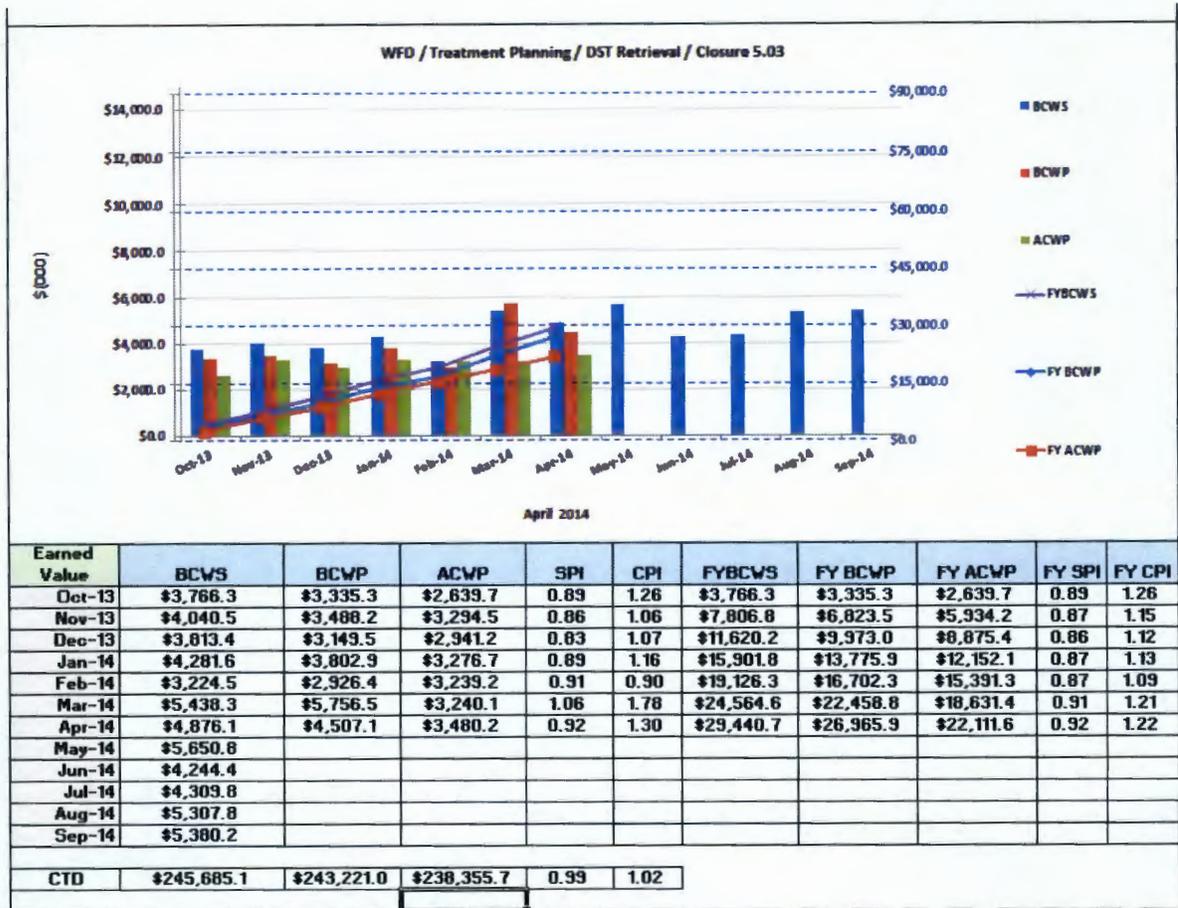
**Retrieval and Close Single-Shell Tanks**

The current month unfavorable cost variance (CV) of **(\$1,521K)** is due to:

- Farm access restriction due to vapor concerns
- Additional engineering hours needed to complete increased design activities for C-105

The current month favorable schedule variance (SV) of \$558K is due to

- C-102 completed retrieval startup and readiness activities earlier than planned
- C-112 received the first two Extended Reach Sluicing Systems (ERSS) ahead of schedule



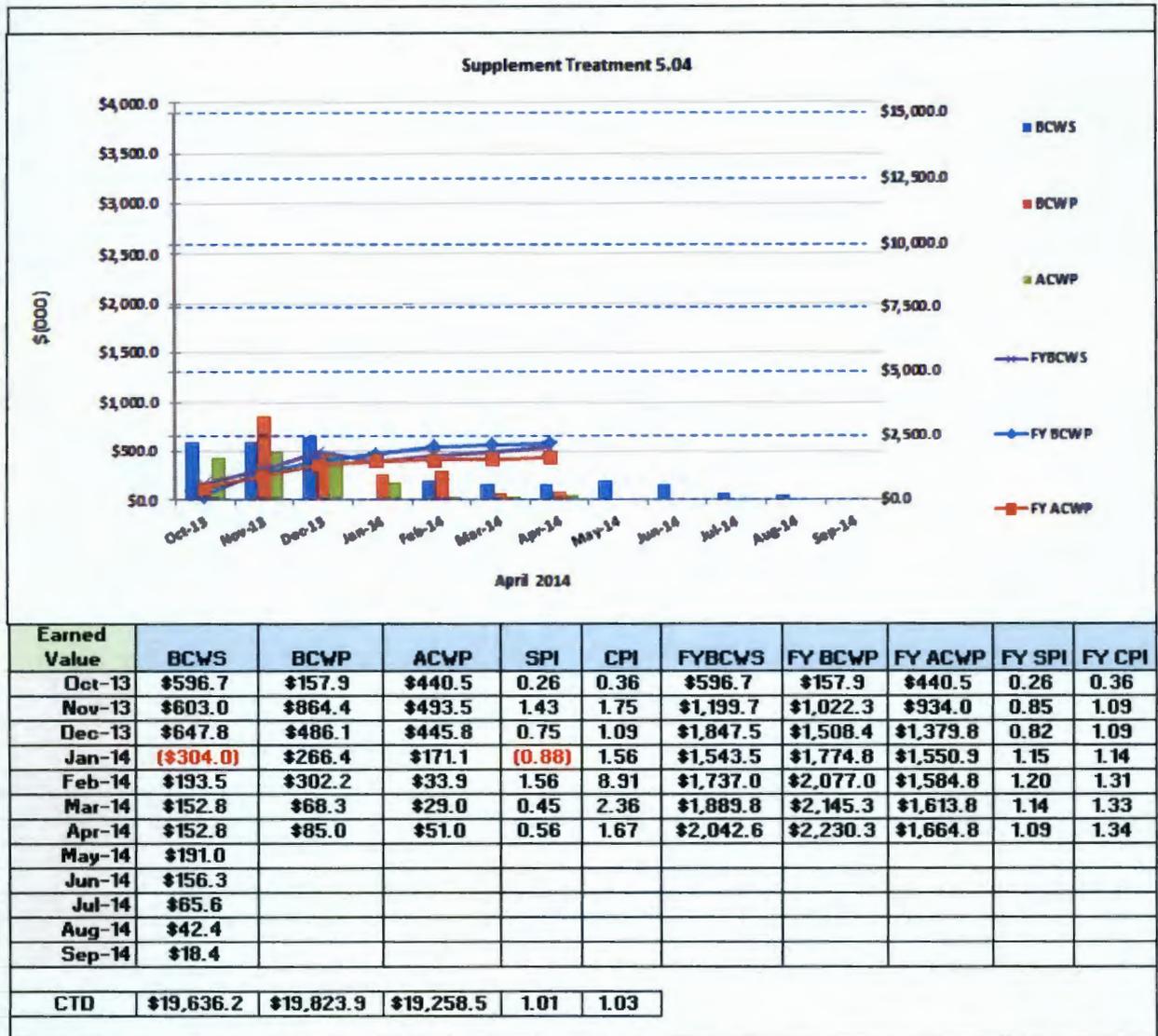
**Waste Feed Delivery/Treatment/Double-Shell Tank Retrieval Closure**

The current month unfavorable schedule variance (SV) of **(\$368.9K)** is due to:

- Delays in awarding subcontracts and limited availability of resources

The current month favorable cost variance (CV) of **\$1,026.9K** is due to:

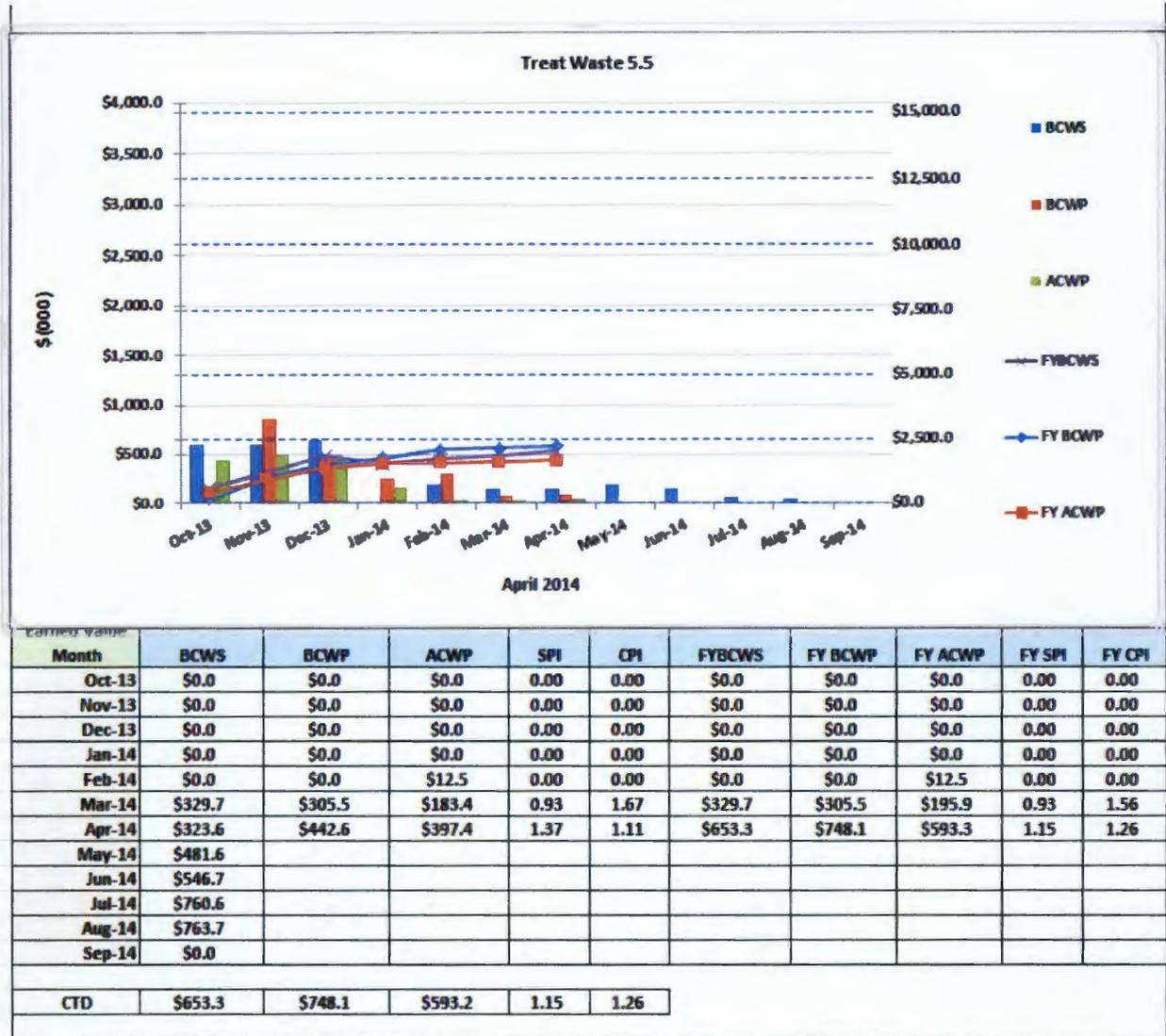
- Labor and subcontract efficiencies



**Supplemental Treatment**

The current month unfavorable schedule variance (SV) of (\$67K) is within the reporting threshold.

The current month favorable cost variance (CV) of \$34K is also within the reporting threshold.



**Treat Waste**

The current month favorable schedule variance (SV) of \$119K is due to:

- Acceleration of the conceptual design for Low Activity Waste Pretreatment System.

The current month favorable cost variance (CV) of \$45K is within the reporting threshold.

## **Work Breakdown Structure 5.2 Retrieve and Close Single-Shell Tanks**

**M-045-22, Review M-045-22-T03 Report and Determine Path Forward**, Due: September 30, 2014, based on M-045-20 TPA Change Package M-45-12-05, Status: On schedule. This ORP/Ecology decision point will determine whether to continue with soil desiccation/contaminant removal testing and other interim measures, and if the remaining work in Milestone M-045-92 should be modified. See ORP letter 13-TF-0014, dated March 18, 2013 and TPA Change Package M-45-12-05 (approved on April 1, 2013) for more information.

**M-045-22-T01, Submit Results of Vadose Zone Characterization of 241-TX to Ecology**, Due: September 30, 2014, based on M-045-20 TPA Change Package M-45-12-05, Status: On schedule.

**M-045-22-T02, Submit Results of Vadose Zone Characterization of 241-U to Ecology**, Due: April 30, 2014, based on M-045-20 TPA Change Package M-45-12-05, Status: Complete. ORP submitted this deliverable to ECY on February 20, 2014, via letter 14-TF-0015.

**M-045-22-T03, Submit SX Soil Desiccation/Contaminate Removal Tech Results to Ecology**, Due: July 31, 2014, based on M-045-20 TPA Change Package M-45-12-05, Status: Complete. ORP submitted this deliverable to ECY on May 15, 2014, via letter 14-TF-0015.

**M-045-56J, Complete Implementation of Agreed to Interim Measures**, Due: July 31, 2014, Status: On schedule.

**M-045-59, Control surface water infiltration pathways as needed to control or significantly reduce the likelihood of migration of subsurface contamination to groundwater at the SST Waste Management Areas (WMA) (pending the Corrective Measures Study report, Milestone M-45-58, and implementation of other interim corrective measures)**, Due: To be determined, Status: On schedule.

**M-045-61, Submit to Ecology for review and approval as an Agreement primary document a Phase 2 RCRA Facility Investigation/Corrective Measures Study Report for WMA Area C (WMA-C)**, Due: December 31, 2014, Status: To be missed. Please see issues.

**M-045-62, Submit to Ecology for review and approval as an agreement primary document a Phase 2 Corrective Measures Study Implementation Plan for WMA-C**, Due: June 30, 2015, Status: To be missed. Please see issues.

**M-045-92, Complete Installation of Four (4) Additional Interim Barriers** (see interim milestones below), Due: October 31, 2017, Status: On schedule. TPA Change Package M-45-12-04 describes these milestones and how the process to move forward with construction/design of additional barriers will depend on discussions and decisions per TPA Milestone M-045-22.

**M-045-92N, Construct Barriers 1 and 2 in 241-SX Farm**, Due: October 31, 2015, Status: On schedule. The decision to move forward with construction/design of additional barriers is dependent on discussions per M-045-22.

**M-045-92O, Submit a Final Design and Monitoring Plan for Interim Barrier 3, Due:** June 30, 2015, Status: On schedule. The decision to move forward with construction/design of additional barriers is dependent on discussions per M-045-22.

**Significant Past Accomplishments:**

- Automated data collection systems for T Farm and TY Farm interim barrier monitoring continue gathering data
- Pore water extraction test south of SX Farm under the M-045-20 work plan has been completed and the report provided to ECY to complete M-045-22-T03
- Data collection in U Farm for electrical resistivity characterization was completed. Data analysis and reporting was completed, and the report provided to ECY to complete M-045-22-T02
- Direct-push field work in TX Farm under the M-045-20 work plan and M-045-21 sampling and analysis plan has been completed. Sample analysis continues
- Documentation of the WMA-C Phase 2 Resource Conservation and Recovery Act Field Investigation Report continues.

**Significant Planned Actions in the Next 6 Months:**

- Complete sample analysis for the direct pus soil sampled taken in TX Farm under the M-045-20 work plan and prepare the analysis report
- Continue documentation of the WMA-C Phase 2 Resource Conservation and Recovery Act Facility Investigation Report.

**SST Retrieval and Closure Program**

**M-045-82, Submit complete permit mod requests for Tiers 1, 2, and 3 of the SST, Due:** September 30, 2015, Status: To be missed. Please see issues.

**M-045-84, Complete negotiations of TPA interim milestones for closure of second WMA, Due:** January 31, 2017, Status: On schedule.

**M-045-83, Complete the closure of WMA-C, Due:** June 30, 2019, Status: On schedule.

**M-045-85, Complete negotiations of TPA interim milestones for closure of remaining WMAs, Due:** January 31, 2022, Status: On schedule.

**M-045-70, Complete waste retrieval from all remaining SSTs, Due:** December 31, 2040, Status: On schedule.

**M-045-00, Complete closure of all SST farms, Due:** January 31, 2043, Status: On schedule.

**M-045-86, Submit retrieval data report to Ecology for 19 tanks retrieved, Due:** To be determined (12 months after retrieval certification), Status: On schedule.

- M-045-86C: Retrieval Data Report for C-104 was due March 21, 2014. Completed on February 18, 2014 with letter 14-TF-0013
- M-045-86F: Retrieval Data Report for C-108 was due May 1, 2014. Completed on November 27, 2013 with letter 13-TF-0120
- M-045-86G: Retrieval Data Report for C-109 was due June 4, 2014. Completed on March 13, 2014 with letter 14-TF-0020
- M-045-86H: Retrieval Data Report for C-110 is due January 29, 2015.

**Significant Past Accomplishments:**

- Completed post-retrieval logging of the drywells near C-104, C-109, and C-110 to support the retrieval data reports
- Retrieval completion certification for C-110 was transmitted to Ecology on January 29, 2014 under ORP letter 14-TF-0007
- See discussions above and related discussions in Consent Decree report.

**Significant Planned Activities in the Next 6 Months:**

- Develop the Retrieval Data Report for C-110
- Continue developing the WMA-C performance assessment
- See discussions above and related discussions in Consent Decree report.

**Issues:**

ORP and Ecology continue to meet to develop an integrated path forward that addresses all the deliverables associated with Milestones M-045-61, M-045-62, and M-045-82.

### Tank Waste Retrieval Work Plan Status

Tank	TWRWP	Expected Revisions	First Retrieval Technology	Second Technology	Third Technology
C-101	RPP-22520, Rev. 8	Complete	Modified Sluicing with ERSS	High-Pressure Water deployed with the ERSS	-
C-102	RPP-22393, Rev. 7	In Process	Modified Sluicing with ERSS	High-Pressure Water deployed with the ERSS	-
C-104	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0018	-
C-105	RPP-22520, Rev. 8	Complete	MARS-V	MARS-V-High Pressure Water Spray	-
C-107	RPP-22393, Rev. 7	Complete	MARS-S	MARS-S-High Pressure Water Spray	-
C-108	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0025	-
C-109	RPP-21895, Rev. 5	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0037	-
C-110	RPP-33116, Rev. 3	Complete	Modified Sluicing	Mechanical Waste Conditioning with an In-Tank Vehicle	High Pressure Water
C-111	RPP-37739, Rev. 2	Complete	Modified Sluicing	High pressure water using the ERSS	Chemical Dissolution Process with ERSS
C-112	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process	-

ERSS = Extended Reach Sluicing System.  
MARS = Mobile Arm Retrieval System.  
S = sluicing.  
TWRWP = Tank Waste Retrieval Work Plan.  
V = vacuum.

#### Significant Accomplishments:

None.

#### Significant Planned Activities in the Next 6 Months:

Modify Tank Waste Retrieval Work Plan RPP-22393, Rev. 7 to provide a discussion of a 3<sup>rd</sup> retrieval technology, hot water dissolution, for tank C-107.

#### Issues:

None.

**Tank in Appendix H, "Status - Single Shell Waste Retrieval Criteria"****Tank 241-C-106****Significant Past Accomplishments:**

None.

**Significant Planned Activities in the Next 6 Months:**

Continue U.S. Nuclear Regulatory Commission (NRC) review of the C-106 exception request. A request for additional information was received from the NRC in February 2009.

**Issues:**

It has been discussed with the NRC that much of the additional information requested is dependent upon development of C Farm residual waste Performance Assessment (PA) and, therefore, cannot be provided until the PA is published.

**Tank Retrievals with Individual Milestones****Tank 241-A-103**

**M-045-15, Completion of Tank A-103 SST Waste Retrieval**, Due: September 30, 2022, Status: On schedule. Change Package M-45-11-04 replaced Tank S-102 with Tank A-103 and changed the milestone completion date for M-045-15 to September 30, 2022.

**M-045-15A, Embedded Milestone, Submit a Retrieval Data Report Pursuant to Agreement Appendix I**, Due: September 30, 2022, Status: On schedule. Updated with Tank A-103 and due date of September 30, 2022, per Change Package M-45-11-04.

**M-045-15D, Embedded Milestone, if appropriate, DOE will request an exception to waste retrieval criteria pursuant to Agreement Appendix H**, Due: September 30, 2022, Status: On schedule. Updated with Tank A-103 and due date of September 30, 2022, per Change Package M-45-11-04.

**Significant Past Accomplishments:**

Change Package M-45-11-04 was signed by ORP and Ecology on April 19, 2011.

**No significant planned activities in the next 6 months and no issues for Tank 241-A-103.**

**Tank 241-S-112**

**M-045-13, Interim Completion of Tank S-112 SST Waste Retrieval and Closure Demonstration Project**, Due: To be determined (in accordance with M-045-84 or M-045-85), Status: On schedule.

**M-045-13E, Complete Negotiations for Interim Milestones for Closure of S-112**, Due: To be determined, Status: On schedule as part of M-045-84 or M-045-85.

**Significant Past Accomplishments:**

Ecology letter of January 7, 2008, concurred with ORP that retrieval of Tank S-112 is complete.

**No significant planned activities in the next 6 months and no issues for Tank 241-S-112.**

**FINAL**

Office of River Protection  
Consent Decree 08-5085-FVS

Monthly Summary Report

June 2014

**Office of River Protection****Consent Decree 08-5085-FVS  
Monthly Summary Report****June 2014 (Monthly Summary Report/Project Earned Value Management System reflects  
April 2014 information)**

<b>Page</b>	<b>Topic</b>	<b>Leads</b>
3	Statistics/Status	James Lynch/Dan McDonald/Jeff Lyon
4	Single-Shell Tank Retrieval Program • D-00B-01, D-00B-02, D-00B-03, D-00B-04	Chris Kemp/Jeff Lyon
5	Tank Waste Retrieval Work Plan Status • Consent Decree Appendix C	Chris Kemp/Jeff Lyon
6	Single-Shell Tank Retrieval Monthly and Fiscal Year Earned Value Management System Data	Kathy Higgins/Jeff Lyon
7	Waste Treatment and Immobilization Plant Project • D-00A-06, D-00A-17, D-00A-01	Delmar Noyes/Dan McDonald
10	Pretreatment Facility • D-00A-18, D-00A-19, D-00A-13, D-00A-14, D-00A-15, D-00A-16	Wahed Abdul/Dan McDonald
13	High-Level Waste Facility • D-00A-20, D-00A-21, D-00A-02, D-00A-03	Wahed Abdul/Dan McDonald
16	Low-Activity Waste Facility • D-00A-07, D-00A-08, D-00A-09	Jeff Bruggeman/Dan McDonald
18	Balance of Facilities • D-00A-12	Jason Young/Dan McDonald
20	Analytical Laboratory • D-00A-005	

## CD Milestone Statistics/Status

Milestone	Title	Due Date	Completion Date	Status
<b>Fiscal Year 2013</b>				
D-00A-05	LAB Construction Substantially Complete	12/31/2012	12/31/2012	Completed
D-00A-12	Steam Plant Construction Complete	12/31/2012	12/31/2012	Completed
D-00A-21	Complete Construction of Structural Steel to elevation of 37 feet in HLW Fac.	12/31/2012	10/24/2012	Completed
<b>Fiscal Year 2014</b>				
D-00B-01	Complete Retrieval of Tank Waste from 10 SSTs in WMA-C	09/30/2014		Ongoing*
D-00B-02	Advise Ecology of the 9 SSTs Waste Will be Retrieved by 2022	09/30/2014	08/24/2011	Completed
<b>Fiscal Year 2015</b>				
D-00A-07	LAW Facility Construction Substantially Complete	12/31/2014		Ongoing*
D-00A-19	Complete elevation 98 feet Concrete Floor Slab Placements in PT Facility	12/31/2014		Ongoing*

DOE = U.S. Department of Energy.

Ecology = Washington State Department of Ecology.

HLW = High-Level Waste (Facility).

LAB = Analytical Laboratory.

LAW = Low-Activity Waste (Facility).

PT = Pretreatment (Facility).

SST = single-shell tank.

WMA-C = C-Farm Waste Management Area.

\*The United States Department of Energy (DOE) has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone.

### Consent Decree Reports/Reviews

**D-00C-01 series, Submit to State of Washington and State of Oregon Semi-Annual Report,** Due: Semi-annually – January 31 and July 31 of each year, Status: On-going.

**D-00C-02 series, Submit to State of Washington and State of Oregon Monthly Summary Reports,** Due: End of each month, Status: On-going.

**D-006-00-A, Meet Approximately Every Three Years after Entry of Decree to review requirements of the Consent Decree,** Held: December 10, 2013, Status: Completed.

**D-006-00-A1, Provide State of Oregon notice of meetings in D-006-00-A, etc. no less than 30 days before they are scheduled,** Sent: November 8, 2013, Status: Completed.

## Single-Shell Tank Retrieval Program

Milestone	Title	Due Date	Status
D-00B-01	Complete Retrieval of Tank Wastes from 10 Remaining SSTs in WMA-C	September 30, 2014	Ongoing*
D-00B-01A through D-00B-01J	Submit Tank Retrieval Complete Certification	TBD <sup>a</sup>	Ongoing
D-00B-02	Advise Ecology of the Nine SSTs from which Waste Will Be Retrieved by 2022	September 30, 2014	Completed
D-00B-03	Initiate Startup of Retrieval in At Least 5 of 9 SSTs in D-00B-02	December 31, 2017	Ongoing
D-00B-04	Complete Retrieval of Tank Wastes from the nine SSTs in D-00B-02	September 30, 2022	Ongoing
D-00B-04A through D-00B-04I	Submit Tank Retrieval Complete Certification	TBD	TBD

- a. Pursuant to Section IV-B-5 of the Consent Decree, DOE must submit to Ecology a written certification that DOE has completed retrieval of a tank in accordance with the requirements of Appendix C, Part 1, of the Consent Decree. Completed for SST C-104 on March 21, 2013, via ORP letter 13-TF-0018. Completed for SST C-108 on May 1, 2013, via ORP letter 13-TF-0025. Completed for SST C-109 on June 4, 2013, via ORP letter 13-TF-0037. Completed for SST C-110 on January 29, 2014, via ORP letter 14-TF-0007.

### Significant Past Accomplishments:

- Continued modified sluicing retrieval operations at C-102, approximately 95K gallons of waste retrieved
- Initiated Operational Acceptance Testing (OAT) of equipment for the Mobile Arm Retrieval System Vacuum (MARS-V) at C-105
- Completed repairs for a valve leak in POR104 valve box
- Continued installation of equipment for hard heel removal system at Tank C-111, and continued with construction acceptance testing.

### Significant Planned Activities in the Next 6 Months:

- Complete readiness and start up the MARS-V in C-105
- Complete retrieval of C-105 using MARS-V
- Complete retrieval of C-107 using MARS-S
- Begin startup of hard heel retrieval in C-111 using high-pressure water, with caustic/water dissolution available
- Complete retrieval of hard heel in C-111 SST.

### Issues:

\*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone.

### Tank Waste Retrieval Work Plan Status

Tank	TWRWP	Expected Revisions	First Retrieval Technology	Second Technology	Third Technology
C-101	RPP-22520, Rev. 8	Complete	Modified Sluicing with ERSS	High-Pressure Water deployed with the ERSS	-
C-102	RPP-22393, Rev. 7	In Process	Modified Sluicing with ERSS	High-Pressure Water deployed with the ERSS	-
C-104	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0018	-
C-105	RPP-22520, Rev. 8	Complete	MARS-V	MARS-V-High Pressure Water Spray	-
C-107	RPP-22393, Rev. 7	Complete	MARS-S	MARS-S -High Pressure Water Spray	-
C-108	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0025	-
C-109	RPP-21895, Rev. 5	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0037	-
C-110	RPP-33116, Rev. 3	Complete	Modified Sluicing	Mechanical Waste Conditioning with an In-Tank Vehicle	High Pressure Water
C-111	RPP-37739, Rev. 2	Complete	Modified Sluicing	High pressure water using the ERSS	Chemical Dissolution Process with ERSS
C-112	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process	-

ERSS = Extended Reach Sluicing System.

MARS = Mobile Arm Retrieval System.

S = sluicing.

TWRWP = Tank Waste Retrieval Work Plan.

V = vacuum.

#### Significant Accomplishments:

None.

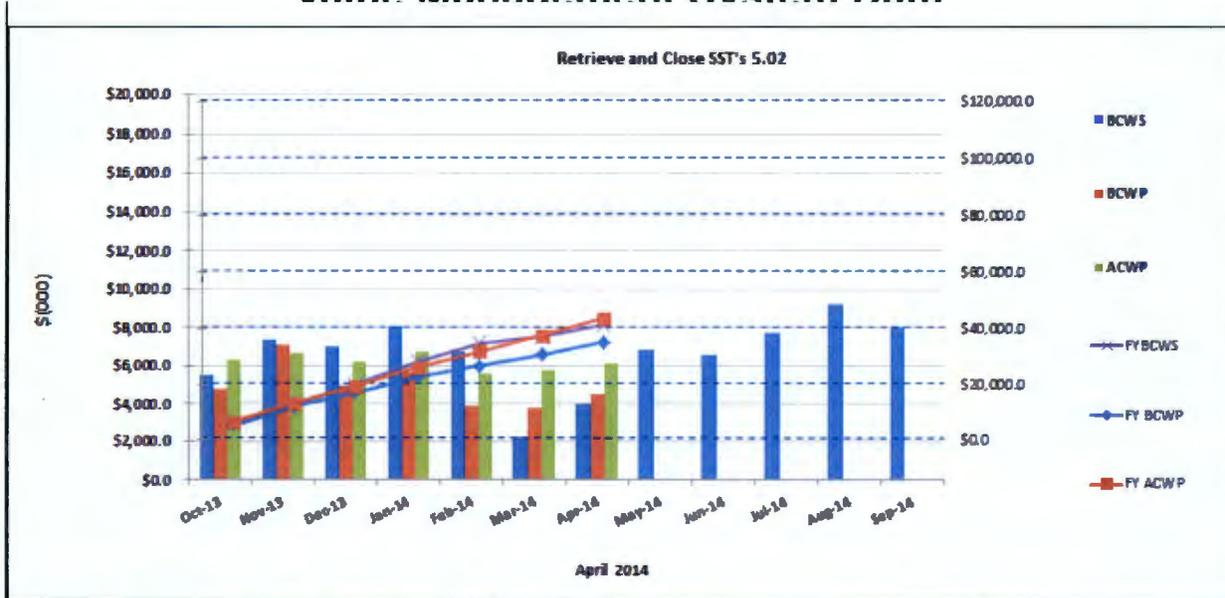
#### Significant Planned Activities in the Next 6 Months:

Modify Tank Waste Retrieval Work Plan RPP-22393, Rev. 7 to provide a discussion of a 3<sup>rd</sup> retrieval technology, hot water dissolution, for tank C-107.

#### Issues:

None.

### Single-Shell Tank Retrieval Monthly and Fiscal Year Earned Value Management System Data



Earned Value	BCWS	BCWP	ACWP	SPI	CPI	FYBCWS	FYBCWP	FYACWP	FY SPI	FY CPI
Oct-13	\$5,483.1	\$4,822.5	\$6,336.0	0.88	0.76	\$5,483.1	\$4,822.5	\$6,336.0	0.88	0.76
Nov-13	\$7,366.3	\$7,053.7	\$6,609.0	0.96	1.07	\$12,849.4	\$11,876.2	\$12,945.0	0.92	0.92
Dec-13	\$6,970.4	\$5,002.0	\$6,231.2	0.72	0.80	\$19,819.8	\$16,878.2	\$19,176.2	0.85	0.88
Jan-14	\$8,101.9	\$5,661.1	\$6,765.0	0.70	0.84	\$27,921.7	\$22,539.3	\$25,941.2	0.81	0.87
Feb-14	\$6,725.6	\$3,913.8	\$5,602.1	0.58	0.70	\$34,647.3	\$26,453.1	\$31,543.3	0.76	0.84
Mar-14	\$2,201.4	\$3,804.7	\$5,729.3	1.73	0.66	\$36,848.7	\$30,257.8	\$37,272.6	0.82	0.81
Apr-14	\$3,999.7	\$4,557.9	\$6,079.2	1.14	0.75	\$40,848.4	\$34,815.7	\$43,351.8	0.85	0.80
May-14	\$6,811.8									
Jun-14	\$6,594.8									
Jul-14	\$7,689.9									
Aug-14	\$9,241.4									
Sep-14	\$8,015.4									
<b>CTD</b>	<b>\$467,687.8</b>	<b>\$461,655.2</b>	<b>\$470,191.5</b>	<b>0.99</b>	<b>0.98</b>					

## Waste Treatment and Immobilization Plant Project

Number	Title	Due Date	Status
D-00A-06	Complete Methods Validations	12/31/2017	Ongoing*
D-00A-17	Hot Start of Waste Treatment Plant	12/31/2019	Ongoing*
D-00A-01	Achieve Initial Plant Operations for WTP	12/31/2022	Ongoing*

WTP = Waste Treatment and Immobilization Plant.

The Waste Treatment and Immobilization Plant (WTP) Project currently employs approximately 2,478 full-time equivalent contractor (Bechtel National, Inc. [BNI]) and subcontractor personnel. This includes 623 craft, 370 nonmanual, and 159 subcontractor full-time equivalent personnel working at the WTP construction site (all facilities).

As of April 2014, the combined Low-Activity Waste (LAW) Facility, Analytical Laboratory (LAB), and Balance of Facilities (BOF) (collectively LBL) were 67 percent complete, design and engineering was 81 percent complete, procurement was 85 percent complete, construction was 79 percent complete, and startup and commissioning was 12 percent complete.

In September 2012, the baseline change proposal that implemented the LBL replan was incorporated into the project over-target baseline, resulting in increases/decreases to the LBL facility budgets, which correspondingly increased/decreased the facility/function to-date percent-complete values. In October 2012, the Pretreatment (PT) and High-Level Waste (HLW) Facilities 2-Year Interim Work Plan was incorporated into the project over-target baseline and the percent-complete values for PT and HLW Facilities were frozen at the September 2012 rate. The WTP Project continues to progress in accordance with the LBL replan and PT/HLW 2-Year Interim Work Plan.

In April 2014, the cumulative to-date WTP Project schedule variance was a negative \$101.9 million, and the cumulative to-date WTP Project cost variance was a negative \$14.5 million. The major contribution to the cumulative to-date cost and schedule variance is based on the progress of the LBL replan and PT/HLW 2-Year Interim Work Plan.

The following is the project status through the end of April 2014.

### Significant Past Accomplishments:

- Continued construction at Full-Scale Test Facility with installation of simulant handling system (PT)
- DOE has directed BNI to submit PT Resumption plan by September 2014 to support DOE authorization to proceed with production engineering by September 2015 (PT)
- DOE has completed the review of the HLW safety design strategy. BNI is in the process of resolving comments (HLW)
- Completed one concrete placement (HLW)
- Installed 12" K3 soldier blocks in the south wall of both melters (LAW)
- Received stack discharge monitoring cabinets (LAB)

**Significant Planned Actions in the Next 6 Months:**

- Evaluate potential savings relative to storing procured commodities onsite compared to storing at vendor facilities during suspensions of procurements
- DOE approval of PT resumption plan to support DOE authorization to proceed with production engineering (PT)
- Complete installation of Autosampling System (LAW)
- Complete construction of the Glass Former Storage Facility (BOF)
- Complete repairs, retest, and recertify radioactive liquid waste disposal (RLD) vessels (LAB)
- BNI is developing a 2-year work plan for FY 2015 and FY 2016 (PT, HLW)

**Issues:**

\*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone. Technical issues relevant to the WTP (specific to PT and HLW Facilities) include, among others, pulse-jet mixers, corrosion/erosion in piping and vessels, hydrogen accumulation, criticality and ventilation.

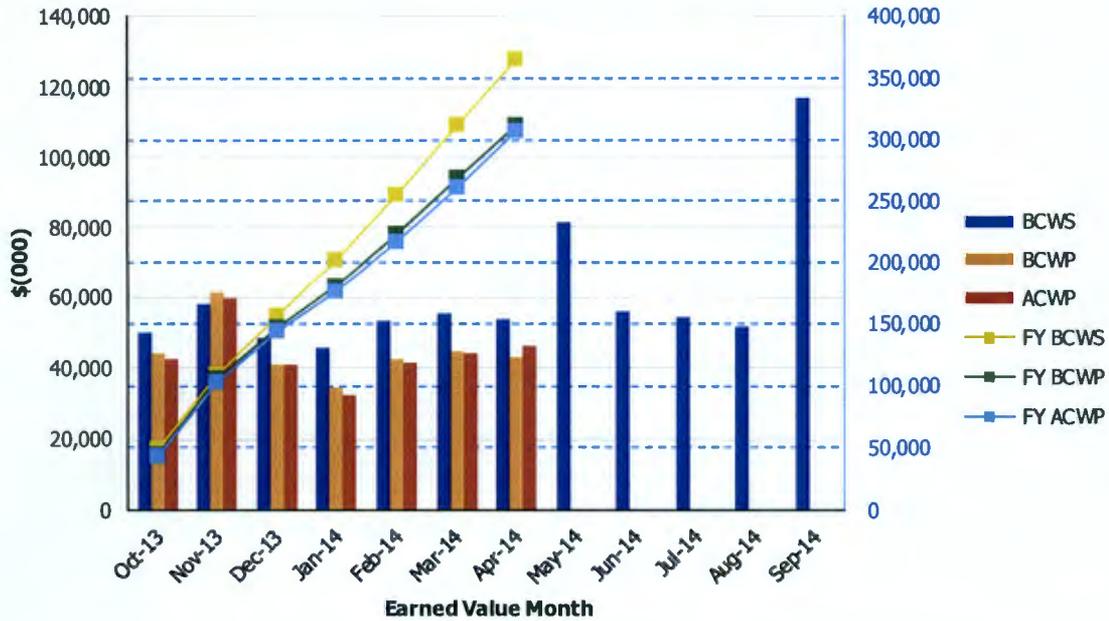
**EXC-01a: Fiscal Year Cost and Schedule Report**

Data Set: FY 2014 Earned Value Data

Data as of: April 2014

**River Protection Project  
Waste Treatment Plant (WTP) Project**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2013	\$49,959	\$43,981	\$42,448	0.88	1.04	\$49,959	\$43,981	\$42,448	0.88	1.04
Nov 2013	\$58,047	\$61,276	\$59,935	1.06	1.02	\$108,006	\$105,257	\$102,383	0.97	1.03
Dec 2013	\$48,739	\$41,149	\$40,881	0.84	1.01	\$156,745	\$146,406	\$143,264	0.93	1.02
Jan 2014	\$45,633	\$34,448	\$32,185	0.75	1.07	\$202,378	\$180,854	\$175,449	0.89	1.03
Feb 2014	\$53,315	\$42,491	\$41,349	0.80	1.03	\$255,693	\$223,345	\$216,798	0.87	1.03
Mar 2014	\$55,327	\$44,937	\$44,053	0.81	1.02	\$311,020	\$268,282	\$260,851	0.86	1.03
Apr 2014	\$53,695	\$43,232	\$46,086	0.81	0.94	\$364,715	\$311,514	\$306,937	0.85	1.01
May 2014	\$81,726									
Jun 2014	\$56,083									
Jul 2014	\$54,292									
Aug 2014	\$51,488									
Sep 2014	\$116,961									
PTD	\$8,154,928	\$8,052,989	\$8,067,547	0.99	1.00					

## Pretreatment Facility

Number	Title	Due Date	Status
D-00A-19	Complete Elevation 98' Concrete Floor Slab in PT Facility	12/31/2014	Ongoing *
D-00A-13	Complete Installation of Pretreatment Feed Separation Vessels	12/31/2015	Ongoing *
D-00A-14	PT Facility Construction Substantially Complete	12/31/2017	Ongoing *
D-00A-15	Start PT Facility Cold Commissioning	12/31/2018	Ongoing *
D-00A-16	PT Facility Hot Commissioning Complete	12/31/2019	Ongoing *

The PT Facility will separate radioactive tank waste into HLW and LAW fractions, and transfer each waste type to the respective vitrification facility for immobilization. As of September 2012, the PT Facility was 56 percent complete overall, with engineering design 85 percent complete, procurement 56 percent complete, construction 43 percent complete, and startup and commissioning 3 percent complete. Construction, procurement, and production engineering activities remain on hold, resulting in no change to the percent-complete status since September 2012. BNI and DOE continue to focus on resolving technical issues, performing hazard analyses, and completing safety evaluations for process systems in accordance with the PT/HLW 2-Year Interim Work Plan.

Technical review teams continue to evaluate open PT Facility technical issues. Construction of the mixing test platform continues in preparation for full-scale testing. BNI is incorporating information provided by the national laboratories into test plans, simulant composition, and instrumentation requirements. Evaluation is ongoing relative to a standardized design for high-solids vessels within the PT Facility.

DOE has directed BNI to submit the PT resumption plan by September 2014 to support DOE authorization to proceed with production engineering by September 2015.

### Significant Past Accomplishments:

- Continued PT resumption planning
- Continued construction at Full-Scale Test Facility with installation of simulant handling system
- Continued jet impingement testing for erosion
- Continued conceptual design for a standard high-solids vessel
- Started maintenance activities as result of PT Facility assessment

### Significant Planned Actions in the Next 6 Months:

- Evaluate potential savings relative to storing procured commodities onsite compared to storing at vendor facilities during suspensions of procurements

- DOE approval of PT resumption plan to support DOE authorization to proceed with production engineering
- Award contract for sensitivity tests for erosion in vessels and piping
- Update basis of design for safety classification regarding seismic analysis of vessels
- Finalize test plan, simulant composition, and test instrument list for full-scale vessel mixing tests
- Define standardized vessel selection criteria in support of vessel mixing resolution
- Complete construction at Full-Scale Vessel Testing Facility

**Issues:**

\*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone. Technical issues relevant to the WTP (specific to PT and HLW Facilities) include, among others, pulse-jet mixers, corrosion/erosion in piping and vessels, hydrogen accumulation, criticality and ventilation.

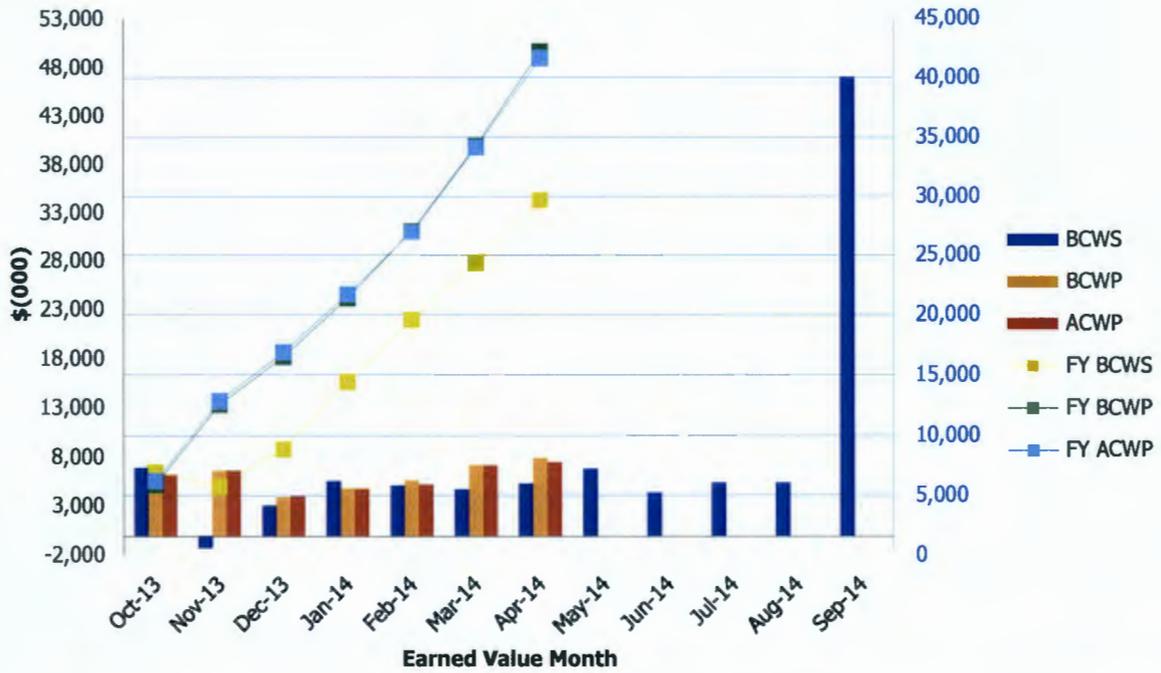
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2014 Earned Value Data

Data as of: April 2014

**River Protection Project  
Pretreatment Facility**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2013	\$6,954	\$5,927	\$6,224	0.85	0.95	\$6,954	\$5,927	\$6,224	0.85	0.95
Nov 2013	(\$1,213)	\$6,673	\$6,646	-	1.00	\$5,741	\$12,600	\$12,870	2.19	0.98
Dec 2013	\$3,109	\$3,957	\$4,053	1.27	0.98	\$8,850	\$16,557	\$16,923	1.87	0.98
Jan 2014	\$5,616	\$4,856	\$4,809	0.86	1.01	\$14,466	\$21,413	\$21,732	1.48	0.99
Feb 2014	\$5,155	\$5,673	\$5,261	1.10	1.08	\$19,621	\$27,086	\$26,993	1.38	1.00
Mar 2014	\$4,751	\$7,210	\$7,173	1.52	1.01	\$24,372	\$34,296	\$34,166	1.41	1.00
Apr 2014	\$5,329	\$7,957	\$7,521	1.49	1.06	\$29,701	\$42,253	\$41,687	1.42	1.01
May 2014	\$6,845									
Jun 2014	\$4,421									
Jul 2014	\$5,437									
Aug 2014	\$5,459									
Sep 2014	\$46,949									
<b>PTD</b>	<b>\$1,556,991</b>	<b>\$1,552,262</b>	<b>\$1,549,431</b>	<b>1.00</b>	<b>1.00</b>					

## High-Level Waste Facility

Number	Title	Due Date	Status
D-00A-21	Complete Construction of Structural Steel to 37' in HLW Facility	12/31/2012	Complete
D-00A-02	HLW Facility Construction Substantially Complete	12/31/2016	Ongoing *
D-00A-03	Start HLW Facility Cold Commissioning	6/30/2018	Ongoing *
D-00A-04	HLW Facility Hot Commissioning Complete	12/31/2019	Ongoing *

HLW = High-Level Waste (Facility).

The HLW Facility will receive the separated HLW concentrate from the PT Facility. This concentrate will be blended with glass formers, converted into molten glass in one of the two HLW melters, and then poured into cylindrical stainless steel canisters. After cooling, the canisters will be sealed and decontaminated before shipment to interim storage.

As of September 2012, the HLW Facility was 62 percent complete overall, with engineering design 89 percent complete, procurement 81 percent complete, construction 43 percent complete, and startup and commissioning 4 percent complete. Construction, procurement, and production engineering activities have significantly slowed down, resulting in minimal change to the percent completion status since September. BNI and DOE continue to focus on resolving technical issues, performing hazard analyses, and completing safety evaluations for process systems in accordance with the PT/HLW 2-Year Interim Work Plan.

Construction activities include the placement of walls at the 37-ft elevation, installation of structural steel at the 58- and 77-ft elevation, and installation of cable tray supports and ventilation ducts at the 14-ft elevation. Engineering efforts are focused on resolution of Priority Level 1 findings. DOE has reviewed, and the BNI Environmental & Nuclear Safety group is resolving comments for, the safety design strategy (SDS) as part of the initiative to resume engineering, procurement, and construction.

Technical review teams completed evaluations of open technical issues to support the resumption of HLW construction. The path forward to ramp up HLW engineering, procurement, and construction is ongoing and includes three actions: (1) Conduct engineering studies to resolve technical safety issues; (2) perform risk assessment for the issues noted in Priority Level 1 findings, reliability validation process, project issues evaluation reporting, etc.; and (3) perform assessment of BNI process improvement for the readiness to proceed. The conditional approval (Decision 1) of the authorization to proceed with engineering, procurement, and construction is awaiting completion of the HLW SDS. However, DOE approved "limited production engineering" activities to facilitate completion of outstanding corrective actions and resolution of existing design issues.

**Significant Past Accomplishments:**

- Completed one concrete placement
- HLW Facility efforts focused on supporting the conditional approval (Decision 1) of the authorization to proceed with engineering, procurement, and construction, and included the following activities:
  - Issued the HLW Facility Design and Operability Review report
  - DOE has completed the review of the HLW safety design strategy. BNI is in the process of resolving comments
  - Implementing the updated Engineering and Environmental & Nuclear Safety processes and procedures

**Significant Planned Actions in the Next 6 Months:**

- Develop plan to close HLW technical and other issues (e.g., safety basis compliance, quality assurance issues, and design defensibility)
- Authorization for full production engineering
- Complete draft analysis of single-point failures in support of failure mode analysis
- Support the SDS - PDSA Gap Analysis activity with E&NS
- Perform high-efficiency particulate air filter qualification testing at Mississippi State University
- Continuing activities to support the RLD System Redesign in support of vessel re-procurement

**Issues:**

\*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone. Technical issues relevant to the WTP (specific to PT and HLW Facilities) include, among others, pulse-jet mixers, corrosion/erosion in piping and vessels, hydrogen accumulation, criticality and ventilation.

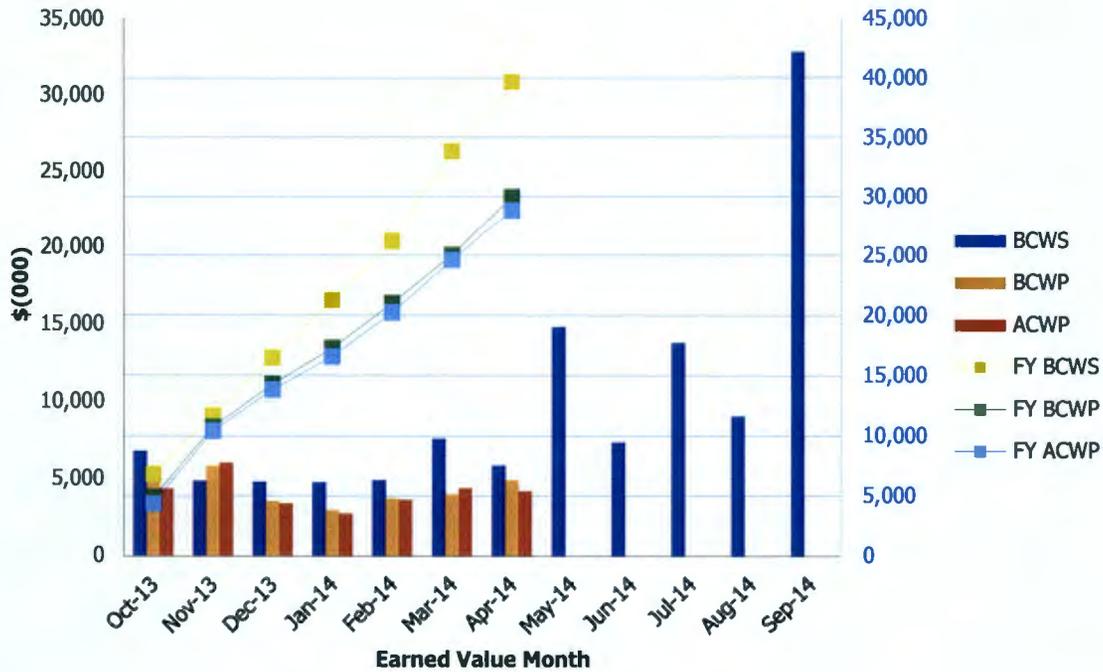
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2014 Earned Value Data

Data as of: April 2014

**River Protection Project  
High-Level Waste Facility**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2013	\$6,818	\$4,914	\$4,390	0.72	1.12	\$6,818	\$4,914	\$4,390	0.72	1.12
Nov 2013	\$4,892	\$5,842	\$6,055	1.19	0.96	\$11,710	\$10,756	\$10,445	0.92	1.03
Dec 2013	\$4,811	\$3,559	\$3,420	0.74	1.04	\$16,521	\$14,315	\$13,865	0.87	1.03
Jan 2014	\$4,778	\$2,998	\$2,760	0.63	1.09	\$21,299	\$17,313	\$16,625	0.81	1.04
Feb 2014	\$4,927	\$3,736	\$3,647	0.76	1.02	\$26,226	\$21,049	\$20,272	0.80	1.04
Mar 2014	\$7,612	\$4,010	\$4,391	0.53	0.91	\$33,838	\$25,059	\$24,663	0.74	1.02
Apr 2014	\$5,867	\$4,921	\$4,203	0.84	1.17	\$39,705	\$29,980	\$28,866	0.76	1.04
May 2014	\$14,818									
Jun 2014	\$7,379									
Jul 2014	\$13,796									
Aug 2014	\$9,052									
Sep 2014	\$32,827									

PTD	\$1,026,508	\$1,019,160	\$1,011,736	0.99	1.01
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## Low-Activity Waste Facility

Number	Title	Due Date	Status
D-00A-07	LAW Facility Construction Substantially Complete	12/31/2014	Ongoing*
D-00A-08	Start LAW Facility Cold Commissioning	12/31/2018	Ongoing*
D-00A-09	LAW Facility Hot Commissioning Complete	12/31/2019	Ongoing*

LAW= Low-Activity Waste (Facility).

The LAW Facility will process the low-activity waste that will be mixed with glass formers, vitrified into glass at a design capacity of 30 metric tons per day, and placed in stainless steel containers anticipated to be disposed of on the Hanford Site in the Integrated Disposal Facility. As of April 2014, the LAW Facility was 69 percent complete overall, with engineering design 80 percent complete, procurement 88 percent complete, construction 74 percent complete, and startup and commissioning 6 percent complete. On February 24, 2014, DOE requested that BNI develop a contract modification proposal for: (1) completing the LBL work scope in the current contract through hot commissioning, and (2) completing initial planning and design for incorporating a permanent capability to accommodate a direct feed LAW (DFLAW) option in the WTP Project.

### Significant Past Accomplishments:

- BNI submitted a proposal for CLIN 1 and 2.1 (LBL and DFLAW Design)
- Held value engineering sessions on effluent management, facility requirements and waste line routing for DFLAW design
- Issued for construction 340,000 linear feet of cable
- Determined path forward for relocating the ammonia skid on +48 elevation
- Installed 12” K3 soldier blocks in the south wall of both melters

### Significant Planned Actions in the Next 6 Months:

- Complete installation of Autosampling System
- Continue refractory brick installation in the melters

### Issues:

\*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone.

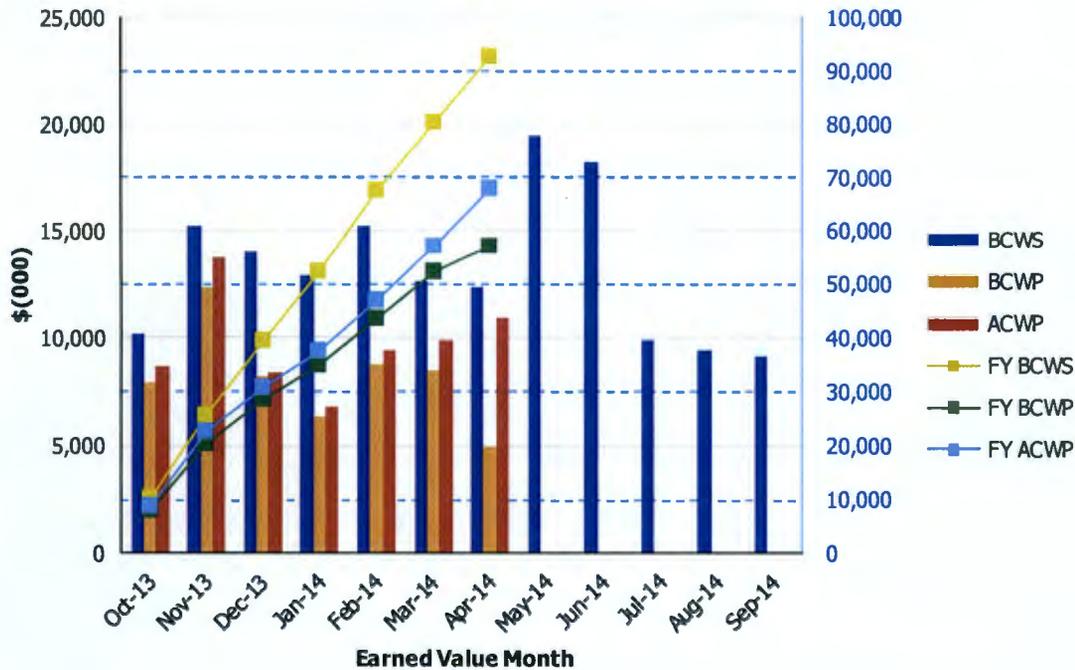
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2014 Earned Value Data

Data as of: April 2014

**River Protection Project  
Low-Activity Waste Facility**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2013	\$10,160	\$7,952	\$8,677	0.78	0.92	\$10,160	\$7,952	\$8,677	0.78	0.92
Nov 2013	\$15,237	\$12,339	\$13,732	0.81	0.90	\$25,397	\$20,291	\$22,409	0.80	0.91
Dec 2013	\$14,003	\$8,214	\$8,389	0.59	0.98	\$39,400	\$28,505	\$30,798	0.72	0.93
Jan 2014	\$12,919	\$6,382	\$6,795	0.49	0.94	\$52,319	\$34,887	\$37,593	0.67	0.93
Feb 2014	\$15,254	\$8,750	\$9,433	0.57	0.93	\$67,573	\$43,637	\$47,026	0.65	0.93
Mar 2014	\$12,596	\$8,478	\$9,852	0.67	0.86	\$80,169	\$52,115	\$56,878	0.65	0.92
Apr 2014	\$12,335	\$4,958	\$10,936	0.40	0.45	\$92,504	\$57,073	\$67,814	0.62	0.84
May 2014	\$19,428									
Jun 2014	\$18,226									
Jul 2014	\$9,943									
Aug 2014	\$9,406									
Sep 2014	\$9,120									

PTD	\$897,003	\$846,562	\$911,094	0.94	0.93					
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## Balance of Facilities

Number	Title	Due Date	Status
D-00A-12	Steam Plant Construction Complete	12/31/2012	Complete

The BOF will provide services and utilities to support operation of the main production facilities: PT, HLW, LAW, and LAB. As of April 2014, BOF was 60 percent complete overall, with engineering design 83 percent complete, procurement 71 percent complete, construction 81 percent complete, and startup and commissioning 15 percent complete.

Commercial grade dedication activities in support of the emergency turbine generator procurement are the primary focus for the quality, design engineering, and procurement organizations. Construction and startup efforts are focused on completion of the Glass Former Facility, construction of the Standby Diesel Generator (SDG) Facility, and turnover of the nonradioactive liquid waste disposal system from construction to startup. The foundation for the SDG facility has been placed, additional facility support concrete placements have been made, and backfill activities are in progress.

### Significant Past Accomplishments:

- Continued flush mod spool installation at the Chiller Compressor Plant
- Continued installation of branch connections for underground piping systems
- Continued working punch list items required for turnover of the Non-Radioactive Liquid Waste Disposal (NLD) system

### Significant Planned Actions in the Next 6 Months:

- Complete construction of the Glass Former Storage Facility
- Turnover the nonradioactive liquid waste disposal system from construction to startup
- Complete component testing of the low-voltage, medium-voltage, and fire detection systems for switchgear Buildings 87 and 91

### Issues:

No major issues at this time.

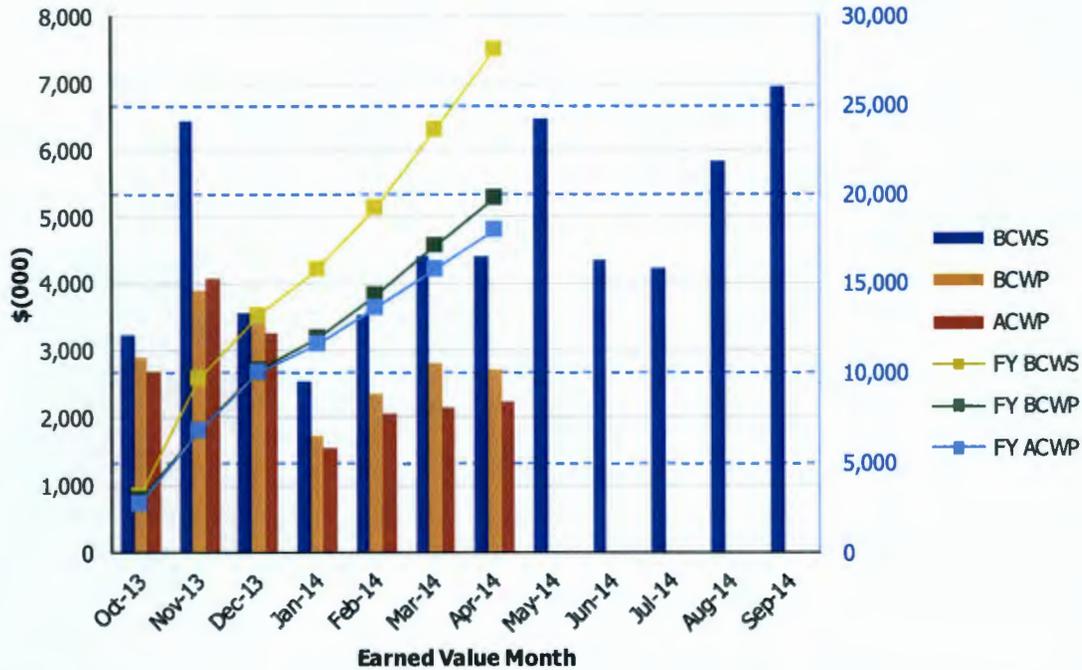
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2014 Earned Value Data

Data as of: April 2014

**River Protection Project  
Balance of Facilities**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2013	\$3,218	\$2,901	\$2,679	0.90	1.08	\$3,218	\$2,901	\$2,679	0.90	1.08
Nov 2013	\$6,431	\$3,886	\$4,067	0.60	0.96	\$9,649	\$6,787	\$6,746	0.70	1.01
Dec 2013	\$3,547	\$3,395	\$3,267	0.96	1.04	\$13,196	\$10,182	\$10,013	0.77	1.02
Jan 2014	\$2,538	\$1,737	\$1,562	0.68	1.11	\$15,734	\$11,919	\$11,575	0.76	1.03
Feb 2014	\$3,528	\$2,356	\$2,047	0.67	1.15	\$19,262	\$14,275	\$13,622	0.74	1.05
Mar 2014	\$4,394	\$2,806	\$2,163	0.64	1.30	\$23,656	\$17,081	\$15,785	0.72	1.08
Apr 2014	\$4,399	\$2,724	\$2,238	0.62	1.22	\$28,055	\$19,805	\$18,023	0.71	1.10
May 2014	\$6,468									
Jun 2014	\$4,329									
Jul 2014	\$4,212									
Aug 2014	\$5,827									
Sep 2014	\$6,945									
PTD	\$354,768	\$337,455	\$329,394	0.95	1.02					

## Analytical Laboratory

Number	Title	Due Date	Status
D-00A-05	LAB Construction Substantially Complete	12/31/2012	Complete

LAB = Analytical Laboratory.

The LAB will support WTP operations by analyzing feed, vitrified waste, and effluent streams. As of April 2014, the LAB was 74 percent complete overall, with engineering design 82 percent complete, procurement 86 percent complete, construction 90 percent complete, and startup and commissioning 24 percent complete.

Engineering efforts are focused on supporting RLD vessel repairs and finalizing the electrical engineering portions of the LAB design. Construction efforts are focused on completing the repair of RLD vessel 164 and installation of instrument tubing and electrical commodities to support the completion of LAB construction.

### Significant Past Accomplishments:

- Received stack discharge monitoring cabinets
- Continued cable pulls and terminations
- Continued installation of penetration seals and fireproofing

### Significant Planned Actions in the Next 6 Months:

- Complete electrical commodity installation
- Complete penetration seal installation
- Complete repairs to RLD vessel 164 and recertify RLD vessels 163, 164 and 165

### Issues:

No major issues at this time.

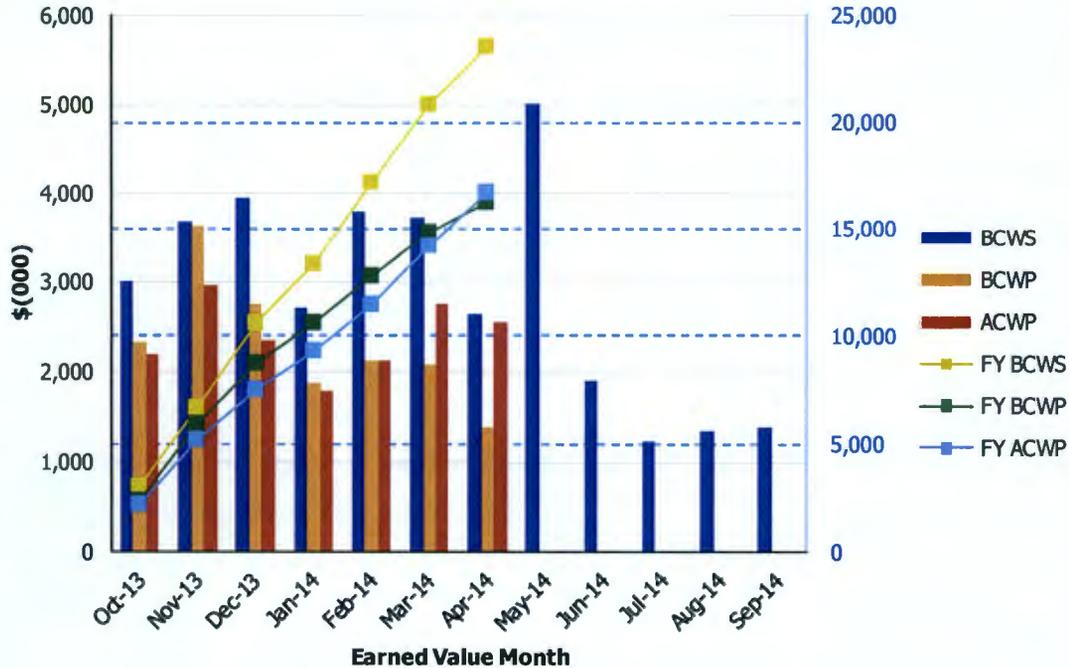
**EXC-01a: Fiscal Year Cost and Schedule Report**

Data Set: FY 2014 Earned Value Data

Data as of: April 2014

**River Protection Project  
Analytical Laboratory**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2013	\$3,008	\$2,328	\$2,196	0.77	1.06	\$3,008	\$2,328	\$2,196	0.77	1.06
Nov 2013	\$3,689	\$3,629	\$2,959	0.98	1.23	\$6,697	\$5,957	\$5,155	0.89	1.16
Dec 2013	\$3,943	\$2,750	\$2,350	0.70	1.17	\$10,640	\$8,707	\$7,505	0.82	1.16
Jan 2014	\$2,705	\$1,875	\$1,788	0.69	1.05	\$13,345	\$10,582	\$9,293	0.79	1.14
Feb 2014	\$3,783	\$2,130	\$2,126	0.56	1.00	\$17,128	\$12,712	\$11,419	0.74	1.11
Mar 2014	\$3,718	\$2,080	\$2,751	0.56	0.76	\$20,846	\$14,792	\$14,170	0.71	1.04
Apr 2014	\$2,642	\$1,382	\$2,552	0.52	0.54	\$23,488	\$16,174	\$16,722	0.69	0.97
May 2014	\$4,999									
Jun 2014	\$1,894									
Jul 2014	\$1,234									
Aug 2014	\$1,351									
Sep 2014	\$1,381									

PTD	\$260,526	\$249,257	\$269,226	0.96	0.93
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**Waste Treatment Plant Project - (LBL) Percent Complete Status**

Through April 2014

(Dollars - Millions)	Overall Facility Percent Complete Unallocated Dollars			Design/Engineering Unallocated Dollars			Procurement Unallocated Dollars			Construction Unallocated Dollars			Startup & Plant Operations Unallocated Dollars			Project Management & Shared Services Unallocated Dollars		
	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete
<b>Facilities</b>																		
Low-Activity Waste	1,234.9	846.6	69%	325.4	260.6	80%	262.4	230.6	88%	463.9	344.0	74%	181.3	11.1	6%	1.9	0.3	15%
Analytical Lab	338.6	249.3	74%	72.9	59.7	82%	55.5	48.0	86%	138.5	124.8	90%	71.1	16.7	24%	0.6	0.1	14%
Balance of Facilities	558.9	337.5	60%	95.2	79.2	83%	74.5	53.2	71%	224.0	180.9	81%	164.6	24.0	15%	0.6	0.1	14%
<b>Total LBL</b>	<b>2,132.4</b>	<b>1,433.3</b>	<b>67%</b>	<b>493.6</b>	<b>399.6</b>	<b>81%</b>	<b>392.4</b>	<b>331.8</b>	<b>85%</b>	<b>826.4</b>	<b>649.7</b>	<b>79%</b>	<b>417.0</b>	<b>51.8</b>	<b>12%</b>	<b>3.0</b>	<b>0.4</b>	<b>15%</b>
<b>PT/HLW/SS Percent Complete Status Frozen as of September 2012 (due to project rebaselining efforts)</b>																		
High-Level Waste	1,478.6	922.1	62%	364.4	325.2	89%	433.9	349.4	81%	561.1	243.2	43%	119.2	4.4	4%	n/a	n/a	n/a
Pretreatment	2,517.3	1,410.5	56%	761.7	645.8	85%	679.9	380.4	56%	890.0	378.6	43%	185.8	5.6	3%	n/a	n/a	n/a
Shared Services	4,726.9	3,632.6	77%	1,047.0	977.9	93%	451.7	395.0	87%	1,436.5	1,143.0	80%	453.5	133.2	29%	n/a	n/a	n/a
Total HLW/PT/SS	8,722.8	5,965.2	68%	2,173.1	1,948.9	90%	1,565.5	1,124.8	72%	2,887.6	1,764.8	61%	758.5	143.2	19%	n/a	n/a	n/a
Undistributed Budget	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Total WTP</b>	<b>10,855.2</b>	<b>7,398.5</b>	<b>68%</b>	<b>2,666.7</b>	<b>2,348.5</b>	<b>88%</b>	<b>1,957.9</b>	<b>1,456.6</b>	<b>74%</b>	<b>3,714.0</b>	<b>2,414.5</b>	<b>65%</b>	<b>1,175.5</b>	<b>195.0</b>	<b>17%</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>

Source: Preliminary WTP Contract Performance Report - Format 1, Data for March 2014

Note: In September 2012, the LBL Replan was incorporated into the project OTB baseline resulting in increases/decreases to the LBL facility budgets, which correspondingly increased/decreased the facility/function to-date percent complete values. In October 2012, the PT/HLW/SS Interim Work Plan was incorporated into the project OTB baseline resulting in decreases to the PT/HLW/SS facility budgets, this was due to a work scope shift from the Distributed budget to UB. Percent Complete Values shown for PT, HLW and SS have been frozen with the September 2012 values due to the Interim Work Plan and budgets being moved into UB. UB value for the project for PT/HLW/SS is \$2,014M. The percent complete values for the Total WTP are the current total LBL BCWP added to the frozen HLW/PT/SS BCWP values. In March 2014, Project Controls and Project Management work scope was moved out of Shared Services control accounts into the facilities with new control accounts being set up in the facilities. These will now be seen under Project Management/Shared Services by facility. The Shared Services PMB value has not been changed to reflect this change due to the freeze on HLW/PT and SS and the budgets remaining in UB.

**WORKING ORP Key Documents List – June 2014**

Milestone Title	Milestone Tie	Document	TPA Milestone Due Date (if applicable) <sup>1</sup>	ORP Delivery to Regulators Date <sup>2</sup>	Anticipated Regulatory Review Completion Date <sup>3</sup>	Final Completion Date <sup>4</sup>	DOE-ORP Lead	Contractor Lead	Ecology Lead	Comments/Issues
ORP and Ecology will review the reports generated in M-045-22-T01, -T02, and -T03 and determine whether to continue with soil desiccation/contaminant removal testing and other interim measures (TPA MS M-045-22).	M-045-22-T01	Submit Results of VZ Characterization of 241-TX to ECY	09/30/14				D. Hildebrand	S. Eberlein	J. Lyon	
	<b>M-045-22-T02</b>	<b>Submit Results of VZ Characterization of 241-U to ECY</b>	<b>04/30/14</b>	<b>02/20/14</b>	<b>N/A</b>	<b>02/20/14</b>	<b>D. Hildebrand</b>	<b>S. Eberlein</b>	<b>J. Lyon</b>	<b>• Sent to ECY on 02/20/14 via ORP Letter 14-TF-0015.</b>
	M-045-22-T03	Submit SX Soil Desiccation/Contaminate Removal Tech Results to ECY	07/31/14				D. Hildebrand	S. Eberlein	J. Lyon	
Submit to Ecology for Review and Approval as an Agreement Primary Document, a Phase 2 RCRA Facility Investigation/Corrective Measure Study Report for WMA-C	Supports M-045-61	WMA-C PA Initial Model Run Data Package		TBD			C. Kemp	S. Eberlein	J. Lyon	• Feeds input for M-045-61 and all Closure Plans
		WMA-C PA Initial Document		TBD			C. Kemp	S. Eberlein	J. Lyon	• Feeds input for M-045-61 and all Closure Plans
		WMA-C Characterization Summary 2013		TBD			C. Kemp	S. Eberlein	J. Lyon	• Feeds input for M-045-61 and all Closure Plans
M-045-61	Phase 2 RFI/CMS Report for WMA-C	12/31/14	TBD			C. Kemp	S. Eberlein	J. Lyon	• Reported as To Be Missed in the March 2013 TPA PMM. Discussions ongoing at the PM level.	
Submit to Ecology for Review and Approval as an Agreement Primary Document, a Phase 2 Corrective Measures Implementation Work Plan for WMA-C.	M-045-62	Phase 2 Corrective Measures Implementation Work Plan for WMA-C	06/30/15	TBD			C. Kemp	S. Eberlein	J. Lyon	• Reported as To Be Missed in the March 2013 TPA PMM. Discussions ongoing at the PM level.
<b>CD 08-5085-FVS Appendix C</b>	<b>CD</b>	<b>Request to Forego 3<sup>rd</sup> Technology in Tank 241-C-101</b>	<b>N/A</b>	<b>02/18/14</b>			<b>C. Kemp</b>	<b>S. Eberlein</b>	<b>J. Lyon</b>	<b>• ORP provided this request to forego to ECY for their review on 02/18/14 via ORP Letter 14-TF-0012.</b>
Submit RDR after WMA-C SST Retrieval Completion Certifications	M-045-86	RDR for SST C-110, embedded TPA milestone M-045-86H	01/29/15				C. Kemp	S. Eberlein	J. Lyon	• CD Retrieval Completion Certification for SST C-110 sent to ECY on 01/29/14 via ORP Letter 14-TF-0007.
Prior to beginning construction & at least one year before construction is to be complete, DOE will submit to Ecology a final design & monitoring plan for each interim barrier.	M-045-92O	Future Barrier Design 3	06/30/15	06/30/15			C. Kemp	S. Eberlein	J. Lyon	• ORP/ECY TPA Change Package M-45-12-04 modified this to a due date of 06/30/15 dependent on discussions per M-045-22.
	M-045-92P	Future Barrier Design 4	06/30/16	06/30/16			C. Kemp	S. Eberlein	J. Lyon	• ORP/ECY TPA Change Package M-45-12-04 modified this to a due date of 06/30/16 dependent on discussions per M-045-22.
M-045-91 Interim Milestones and Target Dates for SST Integrity Implementing the Expert Panel's Recommendations	M-045-91G-T03	Provide AOR Final Doc. for SSTs on 1,000,000 Gallon Tanks	10/31/14	10/31/14			J. Johnson	R. Gregory	J. Lyon	
	M-045-91F-T04	Provide Report on 100-Series SSTs as having Leaked in RPP-32681	12/26/14	12/26/14			J. Johnson	R. Gregory	J. Lyon	
	M-045-91G-T04	Provide AOR Final Doc. for SSTs on 55,000 Gallon Tanks	01/30/15	01/30/15			J. Johnson	R. Gregory	J. Lyon	
	M-045-91B-T01	Provide Ecology report on the Concrete Core from TankA-106 or alt	01/31/15	01/31/15			J. Johnson	R. Gregory	J. Lyon	
	M-045-91F-T02	Provide Report of Liner Failures for SSTs	03/31/15	03/31/15			J. Johnson	R. Gregory	J. Lyon	
	M-045-91F	Provide Summary Conclusions Report on Leak Integrity	06/30/15	06/30/15			J. Johnson	R. Gregory	J. Lyon	
	M-045-91G	Provide Summary Conclusions Report of AOR for SSTs	07/28/15	07/28/15			J. Johnson	R. Gregory	J. Lyon	
	M-045-91H	Submit Change Pckg (if necessary) to est. Additional Milestones	07/31/15	07/31/15			J. Johnson	R. Gregory	J. Lyon	
M-045-91I	Provide IQRPE Certification of SSTs Structural Integrity	09/30/18	09/30/18			J. Johnson	R. Gregory	J. Lyon		
Waste Supplemental Treatment Report	M-062-40ZZ	Submit One Time Tank Waste Supplemental Treatment Tech. Report	10/31/14				S. Pfaff	C. Burrows	D. McDonald	• ORP letter 14-TF-0052, signed 05/06/14 provides discussion on ORP/ECY agreement that ORP will not submit the one-time report • Ecology provided response letter 14-NWP-110 on 05/29/14
Complete final design and submit RCRA Part B Permit Modification Request	M-062-31-T01	RCRA Part B Permit Modification--Final Design	04/30/16	04/30/16			S. Pfaff		D. McDonald	

<sup>1</sup> "TPA Milestone Due Dates" are the direct regulatory drivers for completion of milestones.

<sup>2</sup> "ORP Delivery to Regulators Dates" are those dates that support future milestones, are submittal dates for permitting activities, or miscellaneous submittals that support ORP actions and represent the dates when ORP submits documents to the regulators. ORP Delivery to Regulators Dates may be earlier than TPA Milestone Due Dates if work is completed ahead of schedule.

<sup>3</sup> The "Anticipated Regulatory Review Completion Date" is generated based on TPA Milestone Agreements and TPA Section 9.0 documentation requirements for primary documents. This date will be changed and noted in "Comments/Issues" if extension of review is requested. If the document is a secondary document or for information only, the "Anticipated Regulatory Review Completion Date" may be listed as "N/A" for not applicable.

<sup>4</sup> "Final Completion Date" is entered after the document is reviewed, comments are incorporated, and any disputes are resolved. Any comment resolution issues or disputes will be noted under "Comments/Issues."

**Bold red = DOE submittal within the next 90 days    Bold green = document is under initial ECY Regulatory Review    Bold black = document under comment/review response or other actions    Bold blue = document is completed**

## WORKING ORP Key Documents List – June 2014

Topic Areas	Document	ORP Delivery to Regulators Date <sup>1</sup>	Anticipated Regulatory Review Completion Date <sup>2</sup>	Final Completion Date <sup>3</sup>	DOE-ORP Lead	Contractor Lead	Regulator Lead	Comments/Issues
PERMIT DOCUMENTS	Tier 1 Framework Closure Plan Update	09/30/15			C. Kemp	S. Eberlein	J. Lyon	• Tier 1, 2, 3 Submittal is associated with M-045-82, due 09/30/2015. This MS was reported as To Be Missed in the March 2013 TPA PMM. Discussions ongoing at the PM level.
	Tier 2 WMA-C Closure Plan	TBD			C. Kemp	S. Eberlein	J. Lyon	
	All Remaining Closure Plans for WMA-C	09/30/15			C. Kemp	S. Eberlein	J. Lyon	
	WMA-C Closure Conceptual Design	TBD			C. Kemp	S. Eberlein	J. Lyon	
	Tier 3 Closure Plans for Tanks Already Received	TBD			C. Kemp	S. Eberlein	J. Lyon	• Due 180-day post EIS
	Tier 3 Closure Plans for Additional Tanks	09/30/15			C. Kemp	S. Eberlein	J. Lyon	• Several Dates in out years
	WMA-C Closure Design	TBD			C. Kemp	S. Eberlein	J. Lyon	• Final dates not yet determined; provides basis for the Tier 2 Closure Plan
	Supplemental Treatment Technology Notice of Construction	TBD			L. Huffman		J. Lyon	
	Submit Part B Permit Application for Selected Supplemental Treatment Technology	TBD			L. Huffman		J. Lyon	
	Submit Wiped Film Evaporator Class 3 Permit Modification or Part B Permit Application	TBD			L. Huffman		J. Lyon	
OTHER DOCUMENTS	IDF Performance Assessment (ORP/WRPS has support role to RL/CHPRC)	TBD			T. Fletcher		J. Lyon	
	Submit Categorical TOC HIA	TBD					J. Lyon	
	Temporary Waste Transfer Line Management Program Plan (also known as Hose-In-Hose Transfer Lines (HIHTL) Management Plan), RPP-12711	TBD			C. Kemp		J. Alzheimer	• To be made into a TPA Primary Document with submittal of revision 7 per a TPA Project Managers Agreement, signed 01/22/2013
	Single-Shell Tank System Leak Detection and Monitoring Functions and Requirements Document, RPP-9937	TBD			J. Johnson		J. Alzheimer	• Discussions are underway for a number of revisions to this document
	WMA Quarterly Groundwater Reports	Ongoing Quarterly			D. Hildebrand		J. Lyon	• Ecology SST counterparts have been added to this distribution list as of March 2013 • ORP continues to provide reports to Ecology

AOR = Analysis of Record  
 DOE = U.S. Department of Energy.  
 Ecology = Washington State Department of Ecology.  
 EIS = environmental impact statement.  
 N/A = not applicable.  
 ORP = U.S. Department of Energy, Office of River Protection.  
 PM = project manager.  
 PMM = project manager's meeting.

RCRA = Resource Conservation and Recovery Act.  
 RDR = Retrieval Data Report  
 RFI/CMS = RCRA Facility Investigation/Corrective Measures Study.  
 SST = single-shell tank.  
 TBD = to be determined.  
 TPA = Tri-Party Agreement.  
 WMA-C = Waste Management Area C.  
 WRPS = Washington River Protection Solutions LLC.

<sup>1</sup> Note: "ORP Delivery to Regulators Dates" are those dates that support future milestones, are submittal dates for permitting activities, or miscellaneous submittals that support ORP actions and represent the dates when ORP submits documents to the regulators.

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