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ORP Project Managers Meeting  
December 18, 2014  
2440 Stevens Center  
Richland, Washington  
Meeting Minutes Transmittal

**Distribution:**

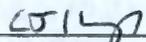
W. Abdul	ORP	H6-60
S. M. Braswell	WIND	H6-60
J. M Bruggeman*	ORP	H6-60
K. W. Burnett*	ORP	H6-60
B. L. Charboneau*	ORP	H6-60
J. A. Dowell	ORP	H6-60
S. H. Pfaff*	ORP	H6-60
J. F. Grindstaff	ORP	H6-60
C. C. Harrington	ORP	H6-60
D. R. Hildebrand	RL	A6-38
F. B. Hidden	ORP	H6-60
B. J. Harp	ORP	H6-60
K. L. Higgins	ORP	H6-60
P. R. Hernandez*	ORP	H6-60
L. A. Huffman	ORP	H6-60
J. M. Johnson*	ORP	H6-60
C. J. Kemp*	ORP	H6-60
D. P. Knight	ORP	H6-60
J. J. Lynch	ORP	H6-60
E. M. Matlin	ORP	H6-60
B. M. Mauss*	ORP	H6-60
D. L. Noyes	ORP	H6-60
S. S. Smith*	ORP	H6-60
D. M. Smith	ORP	H6-60
S. C. Stubblebine	ORP	H6-60
G. D. Trenchard	ORP	H6-60
B. R. Trimberger*	ORP	H6-60
W. R. Wrzesinski*	ORP	H6-60
J. D. Young*	ORP	H6-60
J. M. Alzheimer*	Ecology	H0-57
M. W. Barnes*	Ecology	H0-57
R. K. Biyani*	Ecology	H0-57
A. S. Carlson	Ecology	H0-57
N. Chandron*	Ecology	H0-57
T. Z. Gao*	Ecology	H0-57
M. E. Jones*	Ecology	H0-57
J. J. Lyon	Ecology	H0-57
J. D. McDonald	Ecology	H0-57
J. Price	Ecology	H0-57
A. C. Tortoso*	Ecology	H0-57
C. J. Wold*	Ecology	H0-57

S. Cimon*	ODOE	
B. Curn*	BNI	TBD
T. Beam	WRPS	H3-26
H. M. Bowers	WRPS	H6-14
J. W. Donnelly	WRPS	H3-26
J. A. Joyner	WRPS	H16-14
J. J. Luke*	WRPS	H6-14
R. J. Skwarek	WRPS	H3-28
D. H. Butler	MSA	A3-01
R. E. Piippo*	MSA	A3-01
J. G. Woolard*	MSA	A3-01

ADMINISTRATIVE RECORD – Heather Childers: H6-08

**ORP TPA Project Managers' Monthly (PMM) Meeting  
December 18, 2014**

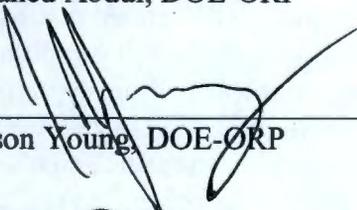
The undersigned indicate by their signatures that these meeting minutes reflect the actual occurrences of the above dated Project Managers Meeting.

  
\_\_\_\_\_  
Chris Kemp, DOE-ORP

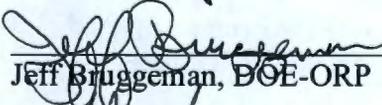
Date: 1-22-2015

  
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Wahed Abdul, DOE-ORP

Date: 1/22/15

  
\_\_\_\_\_  
Jason Young, DOE-ORP

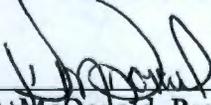
Date: 1/22/15

  
\_\_\_\_\_  
Jeff Bruggeman, DOE-ORP

Date: 1/22/15

  
\_\_\_\_\_  
J. Lyon, Project Manager,  
Washington State Department of Ecology

Date: 2-2-15

  
\_\_\_\_\_  
J. D. McDonald, Project Manager,  
Washington State Department of Ecology

Date: 1-22-2015

## **1.0 Administrative Items/Milestone Status**

### Recent Items Entered/To Be Entered into the TPA Administrative Record

ORP provided the monthly Consent Decree report and the TPA monthly report, which will be submitted to the Administrative Record (AR). ORP distributed a proposed schedule for the project manager meetings (PMMs) for calendar year 2015. Oregon Department of Energy (ODOE) stated that the ORP PMM schedule is in conflict with other standing meetings. ODOE identified the March, June, September and December ORP PMMs as a conflict with other meetings that ODOE attends. There was a brief discussion regarding the schedule, and it was agreed to tentatively schedule the March, June, September and December ORP PMMs on the third Wednesday of those four months at 1:00 p.m. Discussion with the WTP side of today's meeting would be needed to provide input and concurrence with the revised schedule.

### Milestone Status

ORP reported that milestones M-045-91F-T04 and M-045-61 were updated. ORP stated that M-045-61 was split into two milestones (see tank farm Action No. 7 below), and the RFI submittal under M-045-61 is on schedule for December 31, 2014. The milestone that was split from M-045-61 is now M-045-61A, and it represents the corrective measures study (CMS) that is due December 31, 2016. ORP stated that M-045-61A is not reflected on the milestone table since 2016 milestones have not yet been listed. ORP noted that M-045-91F-T01 was completed on November 14, 2014. ORP indicated that since all of the 2014 milestones have been completed, they will be removed from the milestone table, and the 2016 milestones will be rolled into the table and tracked.

## **2.0 Agreements, Issues, Actions**

ORP noted that there were two updates to the action tracking log regarding action No. 3 (TF-14-06-02) and action No. 4 (TF-14-02-02) for the tank farms portion of the action log (see handout). The following actions were updated as follows:

Action No. 1 (TF-14-08-01) – This action remains open.

Action No. 2 (TF-14-08-01) – ORP reported that a couple of briefings were given and meetings have been held with two different Ecology staff regarding Direct Feed Low Activity Waste (DFLAW). ORP stated that a meeting was scheduled with Ecology earlier this month that was canceled due to conflicts, and a meeting will be scheduled in January 2015 to discuss in more detail with another Ecology staff regarding the DFLAW program. This action remains open.

Action No. 3 (TF-14-06-02) – ORP reported that a number of meetings have been held with Ecology regarding the C Farm modeling, and the Subsurface Transport Over Multiple Phases (STOMP) modeling has been initiated. ORP noted that before the STOMP modeling was initiated, the data set were created by discretizing and parameterizing the data, calibrating the

steps, and doing the QA and documentation necessary to be able to run the STOMP model. ORP stated that a commitment was made to Ecology to deliver a schedule with details beyond what has already been provided. ORP noted that the schedule will be provided in what's called a player model. This action remains open.

Action No. 4 (TF-14-02-02) – ORP stated that the closure contract modification is still in progress, and after the contract modification is finalized, a schedule and project management plan (if available) for closing C Farm could be provided to Ecology. ORP estimated that the March-April 2015 time frame was the soonest that a management schedule for closing C Farm could be provided to Ecology. This action remains open.

Action No. 5 (TF-14-01-01) – This action is still open.

Action No. 6 (TF-13-12-01) – ORP noted that this action has been on the books for almost a year for Ecology to provide a list of team members' roles and responsibilities. ORP stated that a list was received from Ecology yesterday for tank farms. ORP indicated that it will match up Ecology's list with the corresponding team members from tank farms. ORP added that Ecology has not provided a list of its WTP team members. ORP noted that tank farms action No. 2 is similar to WTP action No. 6 (WTP-14-10-06), and both actions will remain on the action log. ORP reported that a discussion associated with WTP action No. 6 was held with Ecology about two weeks ago, and ORP is targeting the March 2015 time frame to provide Ecology an integrated flow sheet and a schedule. This action remains open.

Action No. 7 (TF-13-02-03) – ORP stated that the RFI associated with M-045-61 will be submitted to Ecology at the end of December 2014, and the milestone will be reported as complete in January 2015. ORP noted that the draft transmittal letter has been shared with Ecology, and the RFI submittal will consist of about 11,000 pages documenting the soil characterization in C Farm. ORP also noted that related to this action is the approval of change package M-45-14-03, which modifies M-045-61 into two separate milestones. ORP stated that the change package was signed by Ecology on October 1, 2014. This action remains open.

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

#### **Tank Farms**

System Plan – ORP stated that there were no updates to report. Ecology stated that System Plan 7 is in review, and that Ecology will be sending a letter with questions from its review to ORP.

Acquisition of New Facilities; M-90-00; M-47-00 - ORP reported that there were no changes in the M-090 or M-047 milestone series. ORP noted that the next milestone deliverables under both milestones are the conceptual design (CD) packages, which are due March 2016. ORP stated that the CDs are not currently being worked, and it will have to be determined whether the CDs end up in the FY16 schedule.

Supplemental Treatment and Part B Permit Applications; M-62-00, -20, -30, -45 - ORP noted that M-062-40ZZ was deleted. ORP stated that M-062-45ZZ is due on April 30, 2015, and the status is on schedule. ORP added that M-062-45ZZ is part of the ongoing court cases regarding the status of several milestones, and there are no current discussions on 45ZZ with Ecology.

242-A Evaporator Status – ORP reported that the red flag tank farm transfer holdup has impacted the evaporator runs that were planned for calendar year 2014. ORP stated that as soon as the red flag is lifted, there will be new schedules in effect. ORP noted that there are four evaporator campaigns planned in 2015. ORP stated that MSA has proposed utilizing a cooling tower to provide cooling water for the evaporator campaigns instead of using raw water from the site. ORP stated that the water would be recycled in a cooling tower instead of sending it to the ground and to the river, which may slightly improve the efficiency of the evaporator because of the temperatures involved. ORP stated that it is in the process of analyzing MSA's proposal. Ecology inquired about the red flag transfer holdup. ORP responded that one of the issues was related to procedures associated with the double-shell tank transfers, and there has been some retraining. ORP indicated that the procedures involved valve manipulations such as opening a valve. ORP stated that a date could not be given when the red flag would be lifted.

Double-Shell Tank System Update – ORP stated that Ultrasonic Testing (UT) and the Electro Magnet Acoustic Transducer (EMAT) demonstration are continuing. ODOE asked when the results of the AP-102 UT would be available. ORP responded that the results are in, although the final report won't be available for another couple months.

M-045-91, SST Integrity Assurance - ORP reported that the first three tank integrity target milestones listed in today's summary report were completed (M-045-91F-T04, M-045-91G-T04 and M-045-91B-T01). ORP stated that the next retrieval data report sampling will be in tank C-112 starting in January 2015. ORP stated that a meeting is scheduled today for ORP, WRPS and Ecology to review the details for the C-112 sampling and how communications will occur during the sampling. ORP stated that the next retrieval data report sampling will be in tank C-101 using an offriser sampling system, and it is planned for February 2015.

In Tank Characterization and Summary - ORP reported that the main activity is the core sampling for SY-102, and efforts are under way to obtain the second core. ORP noted that the work is moving slowly due to the cold weather, and the plan is to finish the core sampling in riser No. 4 this month and then winterize the truck. To date, four total cores have been obtained.

Tank Operations Contract (TOC) Overview - ORP stated that the TOC overview is being provided in the monthly summary for review, and there won't be discussions unless an item needs to be described by the specific project manager. Ecology indicated that ORP's approach was acceptable.

Single-Shell Tank Corrective Action; M-45, -50, -60:

M-045-22-T01/T02/T03 – ORP stated that these three target milestones have been declared complete, and asked if Ecology had any comments. Ecology responded that it had discussions with the staff responsible for the SX soil desiccation/contaminate removal (M-045-22-T03) and the U Farm surface geophysical exploration (M-045-22-T02). Ecology added that the vadose zone characterization of 241-TX (M-045-22-T01) has been done. Ecology stated that it had no

comments, and asked if ORP needed a letter. ORP responded that a letter is not needed. M-045-56J – ORP reported that there was a discussion with Ecology yesterday (12/17/14) regarding some modification to a short stretch of curbing around the south side of A Farm, which is an improvement to the run-on/runoff function of the existing curbing. ORP stated that Ecology gave verbal concurrence and had no comments. ORP added that the information was also sent to Ecology via email, and the email will be provided to MSA to be attached to today's minutes and submittal to the AR. ORP stated that the slight modification to the curbing will be reported at the annual meeting in July 2015 (M-045-56K).

M-045-61 - ORP noted that an update to this milestone was provided in the action status (see tank farm action No. 7). Ecology asked if ORP will be hand-delivering the RFI. ORP responded that the 11,000 page document will be hand-delivered, along with the six CDs associated with the RFI. Ecology stated that it will discuss what ORP is expecting for a response when the RFI is delivered.

#### TPA-SST Retrieval and Closure Program:

M-045-82 – ORP noted that this milestone is to be missed.

M-045-86 – ORP stated that the retrieval data reports are now being tracked under this milestone, and there are three reports that will be submitted to Ecology this fiscal year, which include C-101, C-112 and C-107. Ecology asked about the status of the sample analysis on C-107 and if it will be done by the end of January 2015. ORP responded that the last sample was taken about six weeks ago, and that a response to Ecology's inquiry would be provided.

M-045-92/92N/92O – ORP noted that there was nothing to report on these milestones. Data is still being collected from the barriers installed in T Farm and TY Farm.

Tank Waste Retrieval Work Plan (TWRWP) Status - ORP stated that the Mobile Arm Retrieval System (MARS) vacuum with confined sluicing has been deployed in C-105, and the MARS vacuum sluicing plus high pressure water will be started up in January 2015. ORP noted that there was a good discussion with Ecology regarding the format for a draft TWRWP for the third retrieval technology to modify sluice in C-105.

Tank in Appendix H. Status (tank 241-C-106) - There was no change in status to report. ORP stated that the request for additional information cannot be provided until the WMA C PA is completed, which will be drafted in 2016.

Tank Retrievals with Individual Milestones (M-045-15/15A/15D for tank 241-A-103, and M-045-13/13E for tank 241-S-112) – There was no change in status.

CD-SST Retrieval and Closure - ORP noted that the status of D-00B-01 is ongoing, and that notification has been made to the state of Washington and the state of Oregon that tanks C-102, C-105 and C-111 are at very serious risk of missing the milestone (due September 30, 2014). ORP stated that the retrieval completion reports under D-00B-01A through 01J are ongoing as the retrievals are completed, and that it is up to date with this project.

Significant Past Accomplishments – ORP reported that retrieval is under way in C-102, with some retrieval done last week. ORP stated that the slurry distributor needs to be replaced at receiver tank AN-106, which is the receiver tank for C-105. ORP noted that there are pictures of the old and new slurry distributors that will be provided to Ecology, and the pictures show the modifications to the new slurry distributor. Ecology asked if the old slurry distributor has been removed. ORP responded that it is in the process of being removed. ORP stated that the Teflon hydraulic lines in the enhanced reach sluicer system are being replaced with rubber nitrile lines, and retrieval is planned to start up in C-111 in late spring 2015. ORP expressed appreciation to Ecology for coming out and viewing the retrievals. Ecology stated that it was interesting to view the retrievals, and had requested some images that were received a couple hours later.

CD TWRWP Status – ORP stated that the CD TWRWP table is identical to TWRWP table that is in the TPA monthly summary report.

### **Waste Treatment Plant**

ORP distributed a proposed schedule for the ORP project manager meetings (PMMs) for calendar year 2015, and noted that the Oregon Department of Energy (ODOE) requested moving the dates for March, June, September and December. ORP stated that during the tank farms portion of today's meeting, it was suggested moving the four dates back to Wednesday afternoon. WTP and Ecology indicated that they will check their calendars.

ORP referred to the WTP action log (see handout), and noted that the blue updates should have been removed from today's log, and that there were no changes to the action log. The following actions were updated as follows:

Action No. 4 (WTP-14-10-04) – ORP reported that this action is in legal review, and the status updates cannot be provided to Ecology until the legal review is completed and the information is cleared for release.

Action No. 5 (WTP-14-10-05) – ORP stated that this action is in legal review, and the update cannot be provided to Ecology until the legal review is completed and the information is cleared for release.

CD – Milestone Statistics/Status – ORP noted that D-00A-07 and D-00A-19 are due December 31, 2014 and ODE and Ecology have been notified they are at risk.

ORP stated that construction continues in the Low Activity Waste facility (LAW) and High Level Waste facility (HLW), and full scale testing for Pretreatment (PT) is moving forward. ORP noted that the full scale testing for PT is being done to resolve certain technical issues.

### **Pretreatment (PT) Facility**

ORP reported that four of the five run sheets have been completed for the Phase 1 testing for the full scale test facility. ORP stated that Phase 1 includes the pulse jet mixer (PJM) controls testing to demonstrate the ability to control the PJMs. ORP added that some low density/high density solids and sodium thioisulphate were used only to test the ability of the PJMs to work together, and

the different mediums were not quantified for their mixability. ORP stated that the next phase, which is Phase 2, will get into testing the mixing ability. ORP indicated that partitioning may be done to verify different layers to determine if the percent of solids stay in the different layers or if they are uniform, and that the intent of Phase 2 is to get some uniformity of mixing. ORP stated that Phase 2 is slated to start by early February 2015, and there will be an outage between Phase 1 and startup of Phase 2 for equipment change-outs and the addition of a few instruments. Ecology asked where the simulants will be made for Phase 2 testing. ORP responded that it will be batched at the test facility. ORP stated that the initial batching will most likely be done in the multi-purpose stainless steel tank and then transferred into the vessel. ORP noted that the purpose of using the stainless steel tank is there may be a point during testing that temperature is needed, and the hot fluid could be put in the stainless steel tank instead of one of the five poly tanks that could melt with the hot fluid.

ORP reported that the eight technical approach papers for the eight technical issues were approved and submitted by Bechtel to ORP, and they are in legal review to verify their release to Ecology. Ecology asked when ORP expects the eight technical issue resolution plans to be released. ORP responded that it would be early to mid-January 2015 before feedback is received from the legal department. ORP noted that an email was sent to Ecology yesterday about the status of the eight technical issue resolution plans.

ORP stated that the Safety Design Strategy (SDS) plan was submitted by Bechtel and it is in ORP review. ORP reported that Bechtel initiated the gap analysis between the Preliminary Documented Safety Analysis (PDSA) and the current SDS this week, and ORP anticipates approval of the plan in the near future.

ORP reported that it is still working towards the conceptual design for the standardized high solids vessel, and a run sheet (run sheet 2) is being implemented at the small scale test facility to identify the different features or combination of features that would be implemented into the full scale testing. Ecology asked about the size of the small scale tank. ORP responded that the small scale tank is the eight-foot tank and it has four PJMs. ORP added that it is looking at testing sparger technology, airlift technology or recirculating pumps to verify mixing or release of hydrogen. Ecology inquired about airlift technology. ORP explained that an airlift is a tube in the middle of the vessel that creates a natural draft when the PJMs are running, and the tube allows whatever is at the bottom to be pushed to the top. ORP stated that the intent of the tube is if something is trapped at the bottom, such as hydrogen, it would be carried to the top. The tube could also break the surface if there is a crusting issue. ORP stated that the airlift could be an option to be able to continue mixing if the PJM loses air or goes down for some reason, and that ties into the mixing issue that has to be addressed with the Defense Nuclear Facilities Safety Board (DNFSB). Ecology asked if the airlift has been used before in testing. ORP responded that Bechtel has never tested the airlift, but DOE has tested it at the Applied Engineering Laboratory (AEL) facility on site. ORP noted that the option of installing diverter plates at the bottom of the mixing tank is being considered, which would help direct the flow.

ORP stated that a prescreening of all the features discussed above and in the past will be done at

the eight-foot vessel to determine whether or not they add benefit. ORP added that based on that evaluation, the set of test features will be determined for procurement for use in the standardized high solids test vessel. The standardized high solids test vessel will be validated and used as the basis for the standard high solids vessel design. Ecology noted that the testing is critical because it dictates what goes into the standard high solids test vessel, and the design can't be completed for the vessel until the testing is completed. ORP agreed that the design cannot be completed without the testing, which is slated to start in the summer of 2015 and go through December 2015. ORP added that there is potentially a large quantity of testing in the small scale facility. ORP noted that the small scale testing will be done simultaneously with some basic fluid mixing with the six PJMs at the large scale test facility.

ORP stated that Bechtel submitted the resumption plan for PT, and a letter is being drafted approving the plan as a two-stage authorization. ORP noted that the resumption plan is very similar to the resumption plan that was submitted for HLW as far as resolving technical issues and aligning the safety basis for the design. ORP stated that the first stage of authorization for resumption is preliminary engineering, and when that is lined up, then construction will be authorized with the procurement piece on the back end of the approval.

Ecology asked about work on the plant itself, such as the layout of vessels. ORP responded that technical team 6, which is responsible for PT facility optimization, has started the initial layout and design of the standard high solid vessel in planning areas 2, 3 and 4. ORP noted that planning areas 2, 3 and 4 are predominantly where the high solid vessels are located. Technical team 6 is looking at piping to ensure the facility is optimized from a design basis so that there are no dead legs or long horizontal runs that will cause plugging. ORP stated that technical team 6 has the conceptual layout. Adjustments are being made to what is in the hot cell to shorten the runs, and then the design will be reviewed. Ecology asked about the makeup of PT organization. ORP responded that the eight technical teams consist of about 86 engineers, and efforts are under way to ramp up to about 100 engineers. ORP estimated that that tech team 6 has about 15 to 20 engineers.

### High Level Waste

ORP stated that construction is continuing in HLW, and slabs and walls have been mostly been completed around the melter caves at the 37- to 58-foot level. ORP noted that most of those areas are free of technical issues, although the ability to continue the concrete placement will soon be impacted until a few vessels are placed. ORP indicated that there are about 20 to 25 concrete placements that can be done before resolution is needed on RLD vessels 7 and 8 and they are placed in the building. ORP noted that RLD-7 and 8 are not necessarily the next vessels to go into HLW, but they will impact the ability to continue with construction. ORP stated that there is *ongoing* some effort towards procurement of RLD-7 and 8, but there are technical issues associated with the erosion/corrosion safety basis alignment, and those issues are being worked. ORP stated that it is anticipated it will take two to three years before RLD-7 and 8 are installed. Ecology asked if that would cause a halt or delay in construction. ORP responded that there is a concern, but could not provide a definitive answer at this time. ORP added that once RLD-7 or 8 are in place, there

are other trades that can continue with construction other than the concrete work. Ecology asked about placing piping in vessels that are already installed. ORP stated its understanding that the piping for the vessels that are installed in the bays cannot be done until RLD-7 and 8 are in place. ORP stated that Bechtel completed the RLD vessel hazard analysis, which will then feed into the safety basis change package for the RLD vessels and aid with aligning the safety basis. ORP noted that the hazard analysis is one of the steps to procuring the RLD vessels. ORP stated that efforts will be focused on procuring RLD-8 in the next six months, and it is considered critical path. Ecology asked how many vessels are being procured for HLW besides RLD-7 and 8. ORP responded that its understanding was that all of the vessels for HLW have been procured, and that there are not very many vessels in HLW. ORP added that there are a few prep vessels and the RLD vessels, and that most of the feed prep vessels are on site.

ORP stated that efforts continue to resolve technical issues that carry over from PT, and the main issues are the HVAC system and the HEPA filters that are being tested at Mississippi State University (MSU). ORP noted that there have been delays with the filter testing due to vendor supply issues, although the schedule for starting the NQA-1 testing at MSU is still targeted for March 2015. Ecology asked if the types of filters have been narrowed down. ORP responded that the testing so far has not narrowed down the types of filters, and the testing to date has been the CM testing on the Kurion filters. ORP explained that the CM testing is preliminary to the NQA-1 testing that will be done later as the second phase of testing. Ecology inquired about the schedule for completing the testing. ORP responded that an exact date was not available, but the testing will likely take up to a year-and-a-half. ORP noted that the NQA-1 testing is a slow process. ODOE asked if MSU will be conducting the NQA-1 testing. ORP responded that MSU is in the process of getting NQA-1 certified, and that DOE conducted an audit that MSU passed. ORP added that Bechtel is planning to conduct a vendor supplier audit at MSU in early February 2015 to determine if MSU is capable of being on Bechtel's approved vendor list for NQA-1.

ORP stated that the factory acceptance tests were finished for the auto sampling (ASX) glovebox units 29 and 42. Units 29 and 42 are sampling gloveboxes for the auto samplers. Ecology requested a tour of the HLW facility. ORP suggested that Ecology propose some dates, and a tour could be set up. Ecology indicated that the tour was not a formal action item.

#### **Low Activity Waste Facility (LAW)**

ORP noted that the EVMS data for LAW was duplicated under HLW, and a correction will be made before today's monthly summary is submitted to the Administrative Record. ORP reported that work continues on melters 1 and 2, and the current schedule is to complete the castable refractory in melter 1 in January 2015, and then complete melter 2 in February 2015. ORP stated that would complete all the refractory except for the melter lids, which are planned to be completed mid-2015. ORP noted that melter 1 had been targeted for completion by the end of December 2014, but the workers were not required to work over the Thanksgiving and Christmas/New Year holidays. ORP added that overtime and weekends are being worked as needed.

Significant Planned Actions in the Next 6 Months – ORP stated that the subcontractor work scope in the annex should be completed in the next six months. Ecology inquired about the work scope

in the annex. ORP responded that the subcontractor was doing all the finish work on the walls, tile and flooring. Ecology asked what is in the annex besides the controls. ORP stated that there are office spaces, showers, locker rooms, and the conference room. Ecology inquired about the status of the thermal catalytic oxidizer (TCO). ORP responded that fabrication has started on the TCO, and it is targeted for shipment by the end of calendar year 2015. ORP noted that three Bechtel staff are still embedded at the TCO fabrication site.

Ecology stated that it recently received several NCIs for undersize welds, and inquired about the level of repairs that would be needed. ORP responded that the repairs are not as extensive as the welds that were done on the RLD vessels in LAB. ORP stated that based on the vessels in HLW and PT, a vessel inspection plan for LAW was established, and all of the process vessels were inspected on the exterior and interior. ORP stated that the WESP vessels are critical path, along with the TCO, and the WESP vessel repairs were done first. Ecology stated that the NCIs documented about 50 undersize welds, and asked if they were difficult repairs. ORP responded that Bechtel completed the weld repairs and they were not difficult repairs. ORP added that the RLD vessel 164 in LAB posed a significant challenge to repair because of the material type, and the vessels in LAW are not made of the same material.

Ecology inquired about the status of the LAW operability review report, noting that it was to be available for review this month. ORP responded that release of the report has slipped to January 2015. Ecology asked for a schedule for the LAW Pretreatment System (LAWPS). ORP responded that a major review is ongoing this week, and Ecology's request will be relayed to the ORP point of contact.

### **Balance of Facilities (BOF)**

ORP reported that one area of focus has been the commercial grade dedication (CGD) of the emergency turbine generator (ETG). ORP stated that the development of a CGD program during the past year has been successful, and a strategy and a plan have been developed that ORP and Bechtel have good confidence in. ORP added that the expertise of outside individuals was utilized in developing the CGD program. ORP has authorized the vendor to restart the ETG engineering work in accordance with the engineering services CGD plan. ORP plans to go evaluate the vendor's performance in about the March 2015 time frame.

Significant Planned Actions in the Next 6 Months – ORP stated that the majority of the work is done on the Glass Former Storage facility, but it will not continue to be a point of focus since it is well down the line in terms of the startup schedule of BOF facilities. ORP added that the Glass Former Storage facility is not really leaned on during initial startup and commissioning of WTP. ORP stated that an area of focus is making electrical connections to the standby diesel generator (SDG).

ORP reported that the engineering department is looking toward modifications that will be necessary in BOF to support direct feed of the LAW facility, and it is evaluating what needs to be done system by system in support of direct feed LAW (DFLAW). ORP noted that there is design work under way in Reston, Virginia for the effluent management facility (EMF) to support

DFLAW. Ecology asked if the EMF will fall under BOF. ORP responded that the EMF will fall under BOF. ORP explained that there will not be a pretreatment facility in operation in the DFLAW configuration, and the capability needs to be replaced with a system that will send the recycles from LAW and other places over to the Liquid Effluent Retention Facility (LERF) and Effluent Treatment Facility (ETF) on site. ORP stated that the EMF is in the conceptual design phase, and that most of the selections have been made. ORP indicated that fundamentally what is needed is tank space for potentially contaminated fluids that will be recycled from LAW, an evaporator to condense down the recycles, and pumping capability to send that over to ETF. ORP noted that the EMF is a scope that already existed, and it is being pulled from other areas and packaged into a single building to support DFLAW.

Ecology asked if ORP had a flow sheet for the EMF system. ORP responded that it is still early in the design phase and a flow sheet was not available. Ecology asked if LAW feed will be blended in the EMF system. ORP responded that the intent is to deal with recycles and not to deal with feed, and that there will be pretreatment capability external to the WTP prior to coming into LAW for treatment. Ecology asked if the exit from the EMF will go to LERF/ETF. ORP responded that it will follow the same flow plan as with RLD vessels 6A and B and go to LERF/ETF. Ecology stated that there would be bottoms left after evaporation that wouldn't go to LERF. ORP stated that the bottoms would not go to LERF, and that the bottoms would be sent to an RLD tank source and then shipped offsite since there won't be a pump capability. ORP noted that the EMF system is being worked in the DFLAW integrated flow sheet, and it was discussed with Ecology staff about a week ago. Ecology asked when the integrated flow sheet would be available. ORP responded that flow sheet for DFLAW for the integrated schedule is targeted for completion in the March 2015 time frame.

### **Analytical Laboratory (LAB)**

ORP stated that there is not very much activity occurring in LAB, and at this point construction is basically complete. ORP reiterated that the analytical equipment will not be purchased until a certain stage of methods development is reached to where the appropriate equipment is being selected. ORP stated that methods development is planned to start sometime in 2015 to support LAW, and it will be an ongoing process over a couple of years. ORP stated that equipment selection and also the procurement process of the analytical equipment will start towards the end of methods development. The analytical equipment will be installed in time to calibrate the equipment and certify the LAB, and then be ready to support DFLAW. ORP stated that the hot cell shield windows are the entry point for the analytical equipment in the hot cells, and the shield windows or the manipulator arms won't be installed until the methods development and equipment selection for PT and HLW are done. ORP noted that the installation of manipulator arms on a couple key hot cells may be done over the next year to ensure the design range of motion and reach within a hot cell matches up within the cell. ORP added that the efforts with those manipulator arms will aid in the selection of equipment and ensure there is a package that works.

ODOE asked if ORP will need to rethink valve shutoff in the LAB. ORP responded that there will be minor valve isolations needed, but that most of the systems in the LAB are segregated.

ORP stated that there will be a closer look at the various operating systems to ensure there is no overlap that might cause a problem, but it is not anticipated to be a major undertaking. ODOE asked if there will be material coming through any pipes to the LAB. ORP responded that the LAB will only be receiving samples, and the samples will be delivered inside a container. ODOE asked if there would be any concern about valves needing to be disconnected from other parts of the WTP system. ORP stated that there would be no concern, adding that there are three inputs coming into the LAB. ORP explained that two inputs go into the hot cell via separate piping from HLW and PT, and those inputs are driven by a complete auto sampling system, not only to the LAB side but to the HLW and PT side. ORP stated that the third input is a separate input that goes between LAW and the LAB. Ecology asked where the effluent lines go. ORP responded that the current effluent lines for the direct feed capability will have to be sent out, and an evaluation is being done on the best way to do that. ORP noted that that will be addressed in the overall flow sheet for DFLAW.

Ecology asked if the LAW review report would be provided in December 2014 as previously indicated. ORP stated the schedule has slipped to January 2015. Ecology asked about ORP providing a schedule for the LAW PS system. ORP indicated there is a major review by DOE-HQ this week and ORP will have to get back to Ecology.

#### **4.0 Key Documents List**

ORP provided the key documents list.

#### **Upcoming Meetings**

The January project managers meeting is scheduled for Thursday, January 22, 2015, from 9:00 a.m. to 11:30 a.m. at the ORP office.

## Woolard, Joan G

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**From:** Lyon, Jeffery (ECY) <JLYO461@ECY.WA.GOV>  
**Sent:** Wednesday, December 24, 2014 7:04 AM  
**To:** Kemp, Christopher J  
**Cc:** Woolard, Joan G; Trimberger, Bryan R; Alzheimer, Jim (Washington Department of Ecology); Allen, Ruth M  
**Subject:** Re: Note, I would like to make for the December 20, 2014 TPA PM monthly meeting

OK

Sent from my iPhone

On Dec 24, 2014, at 6:39 AM, "Kemp, Christopher J" <[Christopher\\_J\\_Kemp@orp.doe.gov](mailto:Christopher_J_Kemp@orp.doe.gov)> wrote:

Joan,

You were not on the note that I made mention of during the Thursday, December 18, 2014 Tank Farm TPA PM meeting that made mention of the A/AX curbing modification.

I would like to enter this into the TPA administrative record with the December meeting notes.

Thank you!  
Chris

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**From:** Kemp, Christopher J  
**Sent:** Tuesday, December 16, 2014 9:30 AM  
**To:** Lyon, Jeffery  
**Cc:** Grindstaff, Joanne F; Beach, Ryan E; Rambo, Jeffrey J; Eakins, Reggie L; Trimberger, Bryan R; Allen, Ruth M; Greenwell, Roland D; Eberlein, Susan J; Luke, Jeffrey J  
**Subject:** Note, I would like to make for the December 20, 2014 TPA PM monthly meeting

Jeff,

As a heads up to the discussion we had on December 2<sup>nd</sup>, in our last Tuesday interface I mentioned the curbing modification that will be made to aid retrieval construction activities at A/AX Farm. This is a slight field modification that will also need to be noted in the annual M-045-56 annual update "Implementation of Interim Measures" meeting.

I wanted to note this for both of us as TPA project managers the modification of the curbing that allows better access into the A-complex and is actually an improvement to the interim measure function at A-Complex.

Thank you,  
Chris

### Modification of Curbing for Access to A-Complex from the South-East

Access to the A-Complex from the South-East corner of A-Farm is needed to support the shipments of long length equipment to be removed from A-Complex as well as to transport the new retrieval

equipment into the farm for installation. It is desired to use the existing gate for this purpose. Photo 1 shows this gate from the Evaporator parking lot. Photo 2 shows the gate from inside of A-Farm.

In order to improve the access to the farm it is desired to modify the curb to provide a smooth path for the trucks and trailers. In providing this smooth pathway, it is necessary to provide the equivalent level of "run-off" protection provided by the existing curb. This curb was installed to protect A-Complex from ground water "run-on", but due to the topography of this location, the curb is actually a barrier to groundwater that may drain from the slope leading to the gate from entering the Evaporator parking lot.

The modification will be accomplished by cutting down the curb and installing a reinforced concrete ramp. The cut to the curb will be similar to that seen in residential driveways. The ramp will be steel reinforced six inch thick concrete installed to service the loads expected from the trucks and trailers. The position of the ramp is depicted in Photo 3. The attached sketch depicts a typical construction detail for the ramp. The ramp will extend to the East approximately 30 feet from the cold joint shown in the foreground of Photo 3.

This modification to the curbing will maintain the gutter at the base of the curbing so the run-off from the Evaporator parking lot will follow the current route. The apron will be tied into the curbing such that there is a smooth transition to the inside of the curbing at the West (high) end and traverses the slope to ensure that any run-off from the North side of the curb will be routed similar to the original curbing. The elevation of the apron relative to grade will be similar to the existing grade/curb elevation difference, making the apron as effective of a barrier to run-off as the curbing.

December 2014 ORP TPA Project Managers Monthly Meeting

Name	Org
Bryan Trimberger	ORP-ECD
ROB PIIPPO	MSA - TPA
Kathy Knox	Knox Court Reporting
Shelley Simon	ORP
Julie Robertson	Freestone Environmental
Chris Keys	DOE-ORP
SAHID SMITH	DOE-ORP
Jeff Luke	WRP
Mike Barnes	Ecology
Lois H. Harnan	ORP/ECD
Ellen Mattlin	DOE-ORP-TPD
WENDOL WRZESINSKI	DOE-ORP-ONE SYSTEM
Dorinda Smith	DOE-ORP
Steve Pfaff	DOE-ORP
Jim Alzheimer	Ecology
Kristi Wadd	Ecology
JOAN WOOLAND	MSA - TPA
KAYLIN BURNETT	DOE-ORP
Paul Hernandez	DOE-ORP
Brian Chastanet	DOE-ORP
Jeremy Johnson	ORP
Billie Mauss	DOE-ORP
Mandy Jensen	Ecology
Berry Cunn	BNP
Arlene Tortoso	Ecology
Tracy Gao	Ecology
Nitya Chandran	Ecology
Jason Young	DOE
Robbie Biyani	ECY
Jeff Bruggeman	DOE

FINAL

Office of River Protection

Tri-Party Agreement

Monthly Summary Report

December 2014



**Office of River Protection  
Tri-Party Agreement Milestone Review  
December 2014 (Monthly Summary Report/Project Earned Value Management System  
reflects October 2014 information)**

Page	Topic	Leads
1	Administrative Items/Milestone Status	Bryan Trimberger/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	Richard Valle/Paul Hernandez/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
7	In Tank Characterization and Summary	Billie Mauss/Michael Barnes
9	Tank Operations Contract Overview	ORP TPA PMs/Jeff Lyon
17	Single-Shell Tank Corrective Action; M-045-22, M-045-50 series, M-045-60 series, and M-045-92	Chris Kemp/Jeff Lyon
18	Single-Shell Retrieval and Closure Program Tri-Party Agreement (TPA) Milestones Status; M-045-00 series	Chris Kemp/Jeff Lyon
20	Tank Waste Retrieval Work Plan Status	Chris Kemp/Jeff Lyon
21	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	07/22/2014	Completed
M-062-01AC	Submit Semi-Annual TPA Project Compliance Report	07/31/2014	07/31/2014	Completed
M-045-22-T01	Submit Results of Vadose Zone Characterization of 241-TX to Ecology	09/30/2014	09/17/2014	Completed
M-045-22	Review M-045-22-T03 Report and Determine Path Forward	09/30/2014	9/25/2014	Completed
<b>Fiscal Year 2015</b>				
M-062-40D	Submit System Plan	10/31/2014	10/31/2014	Completed
M-062-40ZZ	Submit One Time Tank Waste Supp Treatment Technologies Report	10/31/2014	Deleted on 08/12/2014	Deleted
M-045-91G-T03	Provide AOR Final Doc. for SSTs on 1,000,000 Gallon Tanks	10/31/2014	07/07/2014	Completed
M-045-91F-T04	Provide Report on 100-Series SSTs as having Leaked in RPP-32681	12/26/2014	11/14/14	Completed
M-045-61	Phase 2 RCRA Facility Investigation	12/31/2014		On Schedule
M-045-86H	Submit Retrieval Data Report to Ecology for C-110	01/29/2015	08/06/2014	Completed
M-045-91G-T04	Provide AOR Final Doc. for SSTs on 55,000 Gallon Tanks	01/30/2015		On Schedule
M-045-91B-T01	Provide Ecology report on the Concrete Core from Tank A-106 or alt	01/31/2015		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
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: Completed on 10/31/2014.

**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:

1. 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.
2. 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.
3. Detailed assumption review was completed, and has been approved by Ecology.
4. 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.
5. On February 13, 2014 Washington State Department of Ecology presented the five selected scenarios to the Hanford Advisory Board Tank Waste Committee.
6. 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.
10. On July 29, 2014, WRPS Case authors presented the results of the five cases to Ecology and DOE-ORP.
11. System Plan 7 was reviewed, all comments resolved and incorporated into the document.
12. On October 31, 2014, ORP transmitted System Plan 7 to Ecology.

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

#### 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: March 31, 2016, Status: On Schedule.** 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: March 31, 2016, Status: On Schedule.** 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:**

ORP and Ecology signed TPA Change Packages M-47-14-01 and M-90-14-01 on July 14, 2014 moving the due date for M-047-07 and M-090-13 to March 31, 2016.

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

None.

**Issues:**

None.

**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: Deleted.\***

**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. ORP Letter 14-TF-0088, dated and delivered to Ecology on July 31, 2014, submitted a signed TPA Change Package to delete the requirement of the One-Time Hanford Tank Waste Supplemental Treatment Technologies Report from TPA Milestone M-062-40. Ecology signed TPA Change Package M-62-14-01 deleting M-062-40ZZ on August 12, 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	Campaign started September 9, 2014 Campaign completed on October 9, 2014.
FY 2015	14-01	AP0103 & AP-104	AP-107	Estimated April 2015 Start.
FY 2015	EC-02	AZ-102	AP-103	Estimated April 2015 Start.
FY 2015	EC-03	AZ-102	AP-103	Estimated July 2015 Start.
FY 2015	EC-04	AW-106	AP-103	Estimated August 2015 Start.

FY = fiscal year.  
NA = not applicable.

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

Propose inspection of condenser for scaling/fouling. Feasibility study presented to DOE-ORP by MSA for the possibility of replacing current condenser raw water feed system with a recirculating cooling tower. Review and recommendations are ongoing.

**Issues:**

Due to continuing self-imposed compensatory measures, slip in scheduling will be incurred for all subsequent DST transfers. This, in turn, will delay the planned evaporator campaigns planned in the 2015 calendar year. As such, evaporator campaign EC-01 (i.e. 14-01) is now believed to occur around the March 2015 timeframe.

## Double-Shell Tank System Update

### Ultrasonic Testing

- Routine UT of tank AP-102 was completed.
- Currently demonstrating the use of Electro Magnet Acoustic Transducer (EMAT) in AP-102, teamed with PNNL and AREVA

### Visual Inspection

- Continuing bi-weekly inspections of AY-102 waste accumulation sites.
- Continuing bi-monthly comprehensive inspection of AY-102 annulus.
- Issued the report, RPP-RPT-34311, Rev. 2, *Double-Shell Tank Integrity Inspection Report for 241-AY Tank Farm*, which summarizes annulus inspections performed in AY Farm through September 16, 2014.
- Annulus visual inspections were performed in tanks AP-102, AP-103, AP-104, AP-105, and AP-106. The enhanced inspections for these tanks are scheduled to be completed in December 2014.

### Transfers

- No transfers were performed during the month of October

## Single-Shell Tank Integrity Assurance

**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: Complete. RPP-RPT-54909, Hanford Single-Shell Tanks Leak Causes, Locations, and Rates: Summary Report was transmitted to Ecology on 11/14/2014 under letter 14-TF-1024.**

**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. RPP-RPT-49993, Single-Shell Tank Integrity Project Analysis of Record Hanford Type I Single-Shell Tank Thermal and Operating Loads and Seismic Analysis was transmitted to ORP on 11/13/2014 under letter WRPS-1404777**

**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. RPP-RPT-58254, Concrete Core Testing Report for the Single-Shell Tank 241-A-106 Sidewall Coring Project was transmitted to ORP on 11/11/2014 under letter WRPS-1404732**

**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 SST Type I Analysis of Record was issued on 11/04/2014

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

- Issue the SST Common Factors Report (M-045-91F-T02)

**Issues:**

Planning and discussion for M-045-91H to submit a change package (if deemed necessary by DOE and Ecology) to establish additional milestones for Phase II of the Single-Shell Tank Integrity Project needs to begin.

## **In Tank Characterization and Summary**

For the period from November 1 through November 30, 2014:

**Accomplishments:**

- Completed RPP-RPT-57458, *Derivation of Best-Basis Inventory for Tank 241-C-102 as of October 1, 2014, Rev 1*
- Completed RPP-RPT-55307, *Tank 241-C-104 Residual Waste Inventory Estimates for Component Closure Risk Assessment, Rev 1.*
- Completed RPP-RPT-55803, *Tank 241-C-109 Residual Waste Inventory Estimates for Component Closure Risk Assessment, Rev 1.*

- Completed RPP-RPT-54757, *Tank 241-C-108 Residual Waste Inventory Estimates for Component Closure Risk Assessment*, Rev 1.
- Completed RPP-PLAN-60049, *Tank 241-AW-102 Grab Sampling and Analysis Plan in Support of Evaporator Campaign EC-01*, Rev 0.
- RPP-RPT-58328, *Final Report for Tank 241-AZ-102 Liquid Grab Samples in Support of Evaporator Campaign for Fiscal Year 2014*, Rev 1, was released November 12, 2014.
- RPP-RPT-58355, *Final Report for Tank 241-AN-101 Grab Samples at Midpoint of Tank 241-C-102 in Support of Chemistry Control and Compatibility*, Rev 0, was released November 24, 2014.
- Completed 241-AZ-102A Leak-Detection Pit liquid grab sampling on November 11, 2014. Four samples were received at the lab.
- Completed sampling of waste on Tank 241-C-111 failed sluicer on November 25, 2014. One sample was received at the lab.

**Planned Action within the Next 6 Months:**

***Tank sampling:***

- Tank 241-SY-102 core sampling (Riser #04) is planned for December 2014.
- 241-C-105 fingertrap sampling is planned for December 2014.
- 241-AY-102A LDP grab sample #13 is planned for December 2014.
- Tank 241-AW-102 (Evaporator campaign EC-01) sampling is planned for December 2014.
- Tank 241-C-112 clamshell or fingertrap sampling is planned for January 2015.
- Tank 241-C-101 ORSS closure sampling is planned for February 2015.
- Tank 241-AN-103 chemistry control rotary mode core sample is planned for April 2015.
- Tank 241-AZ-102 (EC-03) grab sampling is planned for May 2015.
- Tank 241-AN-106 sample at C-105 100% retrieval is planned for May 2015.

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

A BBI update for tank 241-C-102 was completed in November.

BBI updates for the following tanks are planned to be completed in December.

- |              |              |             |
|--------------|--------------|-------------|
| • 241-AN-101 | • 241-AP-106 | • 241-B-204 |
| • 241-AN-102 | • 241-AP-107 | • 241-C-107 |
| • 241-AN-106 | • 241-AW-102 | • 241-T-201 |
|              | • 241-AW-106 |             |

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

A screening DQO is in-process to obtain data on odorous tank stack emissions in support of dispersion modeling and is planned to be released in December.

***Issues:***

None.

## TANK OPERATIONS CONTRACT OVERVIEW

### *Project Performance*

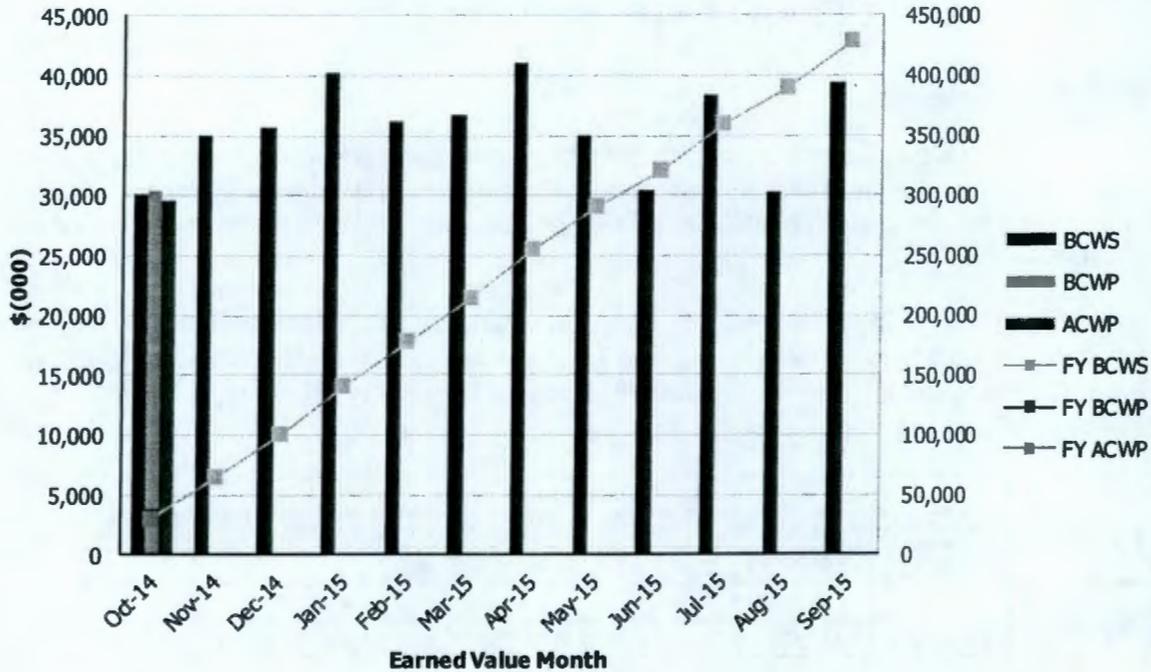
The earned value performance reporting reflects the format, work breakdown structure reporting levels, and variance thresholds as agreed to with the tank operations contractor for monthly performance reporting. The earned value analysis is not intended to be a measurement of performance against existing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

Through October 31, 2014, Washington River Protection Solutions LLC (WRPS) worked 119,841 hours (11 days) without a Lost Time Workday Injury and 119,841 hours (11 days) since the last Recordable case. There was one recordable cases in October 2014, and no Days Away, Restricted, or Transferred (DART) cases.

October-14										
	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC	EAC	VAC
CM	30,052.0	30,480.0	29,607.0	428.0	873.0	1.01	1.03			
FYTD	30,052.0	30,480.0	29,607.0	428.0	873.0	1.01	1.03	428,225.5	436,690.1	(8,464.6)
CTD	2,373,957.6	2,348,959.8	2,330,552.8	(24,997.8)	18,407.0	1.01	1.01	3,312,642.0	3,278,959.0	33,683.0

**Tank Farms ORP-0014**

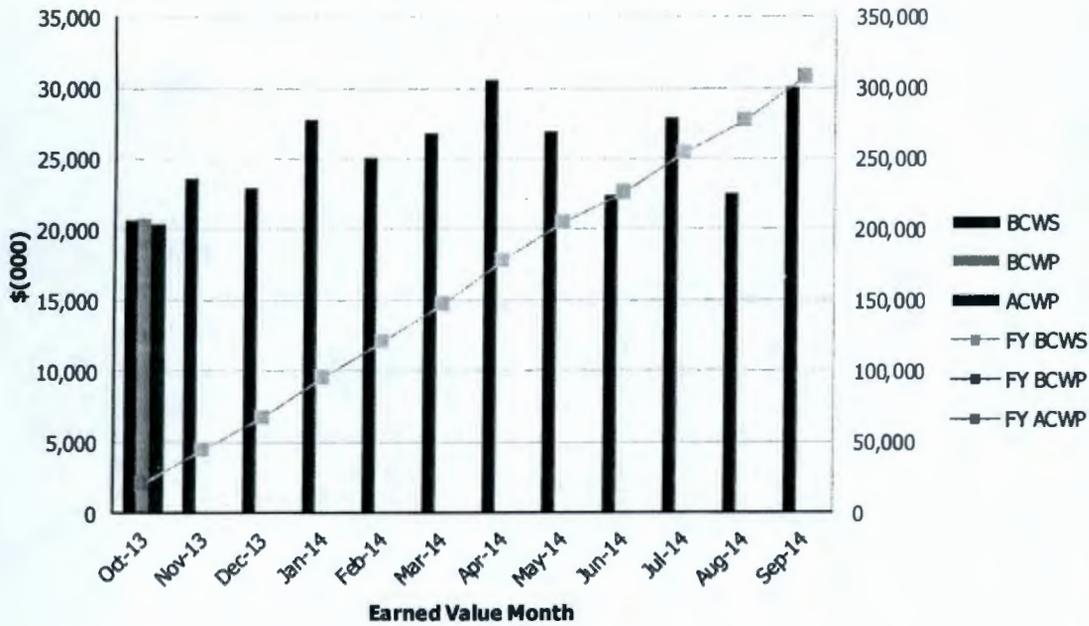
EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2014	\$30,052	\$30,480	\$29,607	1.01	1.03	\$30,052	\$30,480	\$29,607	1.01	1.03
Nov 2014	\$34,963					\$65,014				
Dec 2014	\$35,622					\$100,636				
Jan 2015	\$40,210					\$140,846				
Feb 2015	\$36,185					\$177,031				
Mar 2015	\$36,673					\$213,703				
Apr 2015	\$41,112					\$254,815				
May 2015	\$34,949					\$289,764				
Jun 2015	\$30,511					\$320,275				
Jul 2015	\$38,306					\$358,581				
Aug 2015	\$30,335					\$388,915				
Sep 2015	\$39,310					\$428,226				
<b>CTD</b>	<b>\$2,373,957</b>	<b>\$2,348,960</b>	<b>\$2,330,553</b>	<b>0.99</b>	<b>1.01</b>					

**Tank Farms ORP-0014  
Base Operations 5.01**

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	\$20,627	\$20,833	\$20,428	1.01	1.02	\$20,627	\$20,833	\$20,428	1.01	1.02
Nov 2013	\$23,665					\$44,292				
Dec 2013	\$22,993					\$67,284				
Jan 2014	\$27,725					\$95,009				
Feb 2014	\$25,047					\$120,056				
Mar 2014	\$26,812					\$146,868				
Apr 2014	\$30,490					\$177,358				
May 2014	\$26,895					\$204,252				
Jun 2014	\$22,401					\$226,653				
Jul 2014	\$27,909					\$254,562				
Aug 2014	\$22,480					\$277,041				
Sep 2014	\$30,008					\$307,049				

CTD	\$1,558,055	\$1,546,676	\$1,528,111	0.99	1.01
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**Base Operations and Tank Farm Projects**

The current month favorable schedule variance (SV) of \$206K is due to the following:

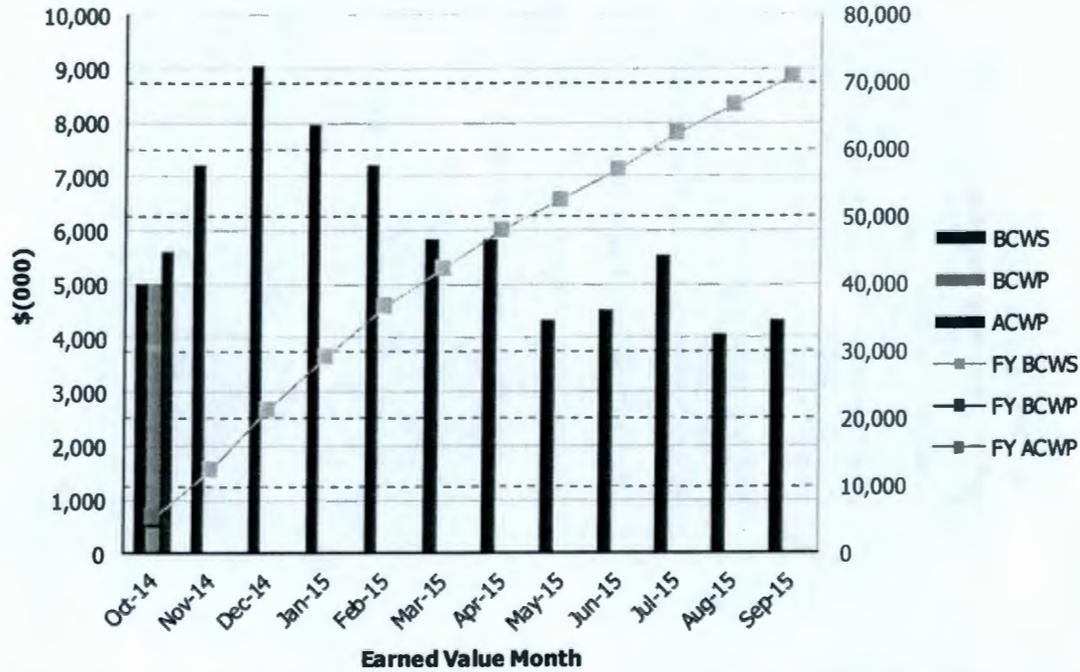
- 242-A Evaporation Campaign schedule recovery.

The current month favorable cost variance (CV) of \$405K is primarily due to the following:

- Reassignment of staff to higher priority work for Solid Waste Management and Base Operations West Area.

**Tank Farms ORP-0014  
Retrieve and Close SST's 5.02**

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 2014	\$5,024	\$5,011	\$5,609	1.00	0.89	\$5,024	\$5,011	\$5,609	1.00	0.89
Nov 2014	\$7,212					\$12,236				
Dec 2014	\$9,069					\$21,304				
Jan 2015	\$7,970					\$29,275				
Feb 2015	\$7,208					\$36,482				
Mar 2015	\$5,831					\$42,313				
Apr 2015	\$5,829					\$48,142				
May 2015	\$4,316					\$52,458				
Jun 2015	\$4,503					\$56,961				
Jul 2015	\$5,525					\$62,486				
Aug 2015	\$4,071					\$66,558				
Sep 2015	\$4,329					\$70,887				
<b>CTD</b>	<b>\$510,523</b>	<b>\$500,428</b>	<b>\$514,952</b>	<b>0.98</b>	<b>0.97</b>					

**Retrieval and Close Single-Shell Tanks**

The current month unfavorable cost variance (CV) of (\$13k) is within the reporting threshold

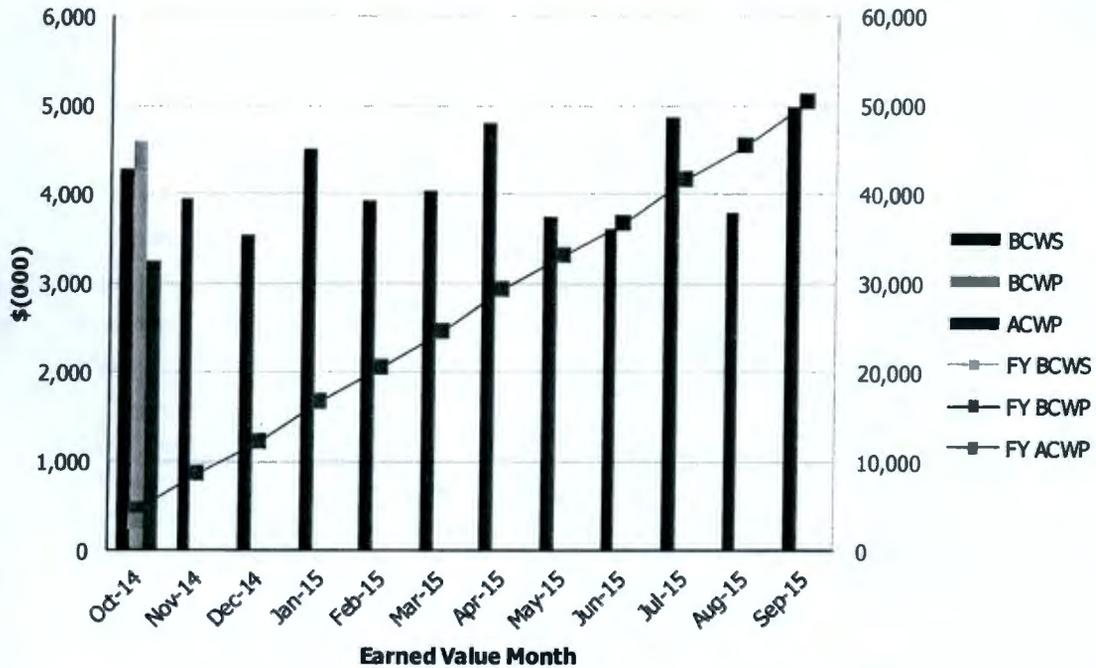
The current month unfavorable schedule variance (SV) of (\$598k) is due to:

Non-performance of SST C-105 Retrieval activities due to the plugged slurry distributor in receiver tank AN-106 and shut down of C-105 vacuum retrieval and stepping back and doing a path forward analysis using systems engineering approach. Corrective Action:

Slurry distributor to be replaced. Complete the systems engineering evaluation for C-105 and start up retrieval using high pressure water and modified sluicing along with potential evaluation of another 3<sup>rd</sup> retrieval technology method.

**Tank Farms ORP-0014**  
**Waste Feed Delivery/Treatment/Double-Shell Tank Retrieval Closure 5.03**

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 2014	\$4,277	\$4,605	\$3,261	1.08	1.41	\$4,277	\$4,605	\$3,261	1.08	1.41
Nov 2014	\$3,949						\$8,554			
Dec 2014	\$3,541						\$12,094			
Jan 2015	\$4,515						\$16,609			
Feb 2015	\$3,931						\$20,540			
Mar 2015	\$4,029						\$24,569			
Apr 2015	\$4,793						\$29,362			
May 2015	\$3,738						\$33,100			
Jun 2015	\$3,607						\$36,707			
Jul 2015	\$4,872						\$41,579			
Aug 2015	\$3,784						\$45,363			
Sep 2015	\$4,973						\$50,336			
<b>CTD</b>	<b>\$280,846</b>	<b>\$277,168</b>	<b>\$263,606</b>	<b>0.99</b>	<b>1.05</b>					

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

The current month favorable schedule variance (SV) of \$328K is due to:

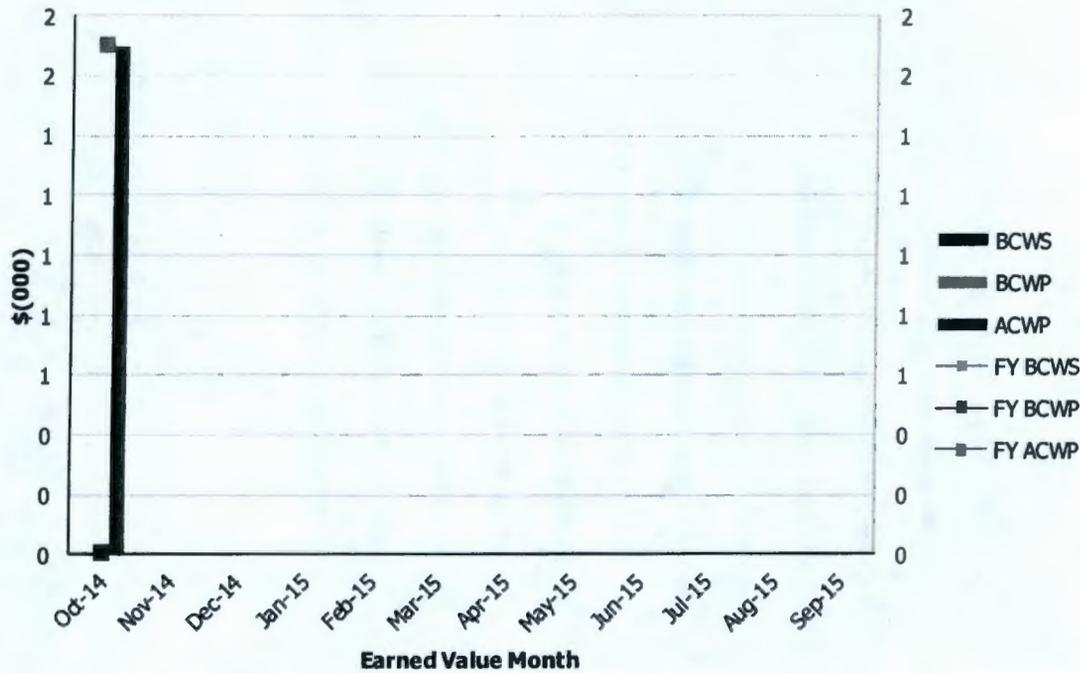
- Measurement of Glass Form properties scope progressing at a faster rate than originally planned due to PNNL’s past experience in glass form testing.

The current month favorable cost variance (CV) of \$1,344K is due to:

- Underrun in labor due to unfilled vacancies
- Labor efficiencies due to fewer resources being required to accomplish planned workscope

**Tank Farms ORP-0014  
Supplement Treatment 5.04**

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 2014	\$0	\$0	\$2	0.00	0.00	\$0	\$0	\$2	0.00	0.00
Nov 2014										
Dec 2014										
Jan 2015										
Feb 2015										
Mar 2015										
Apr 2015										
May 2015										
Jun 2015										
Jul 2015										
Aug 2015										
Sep 2015										

CTD	\$20,110	\$20,110	\$19,180	1.00	1.05
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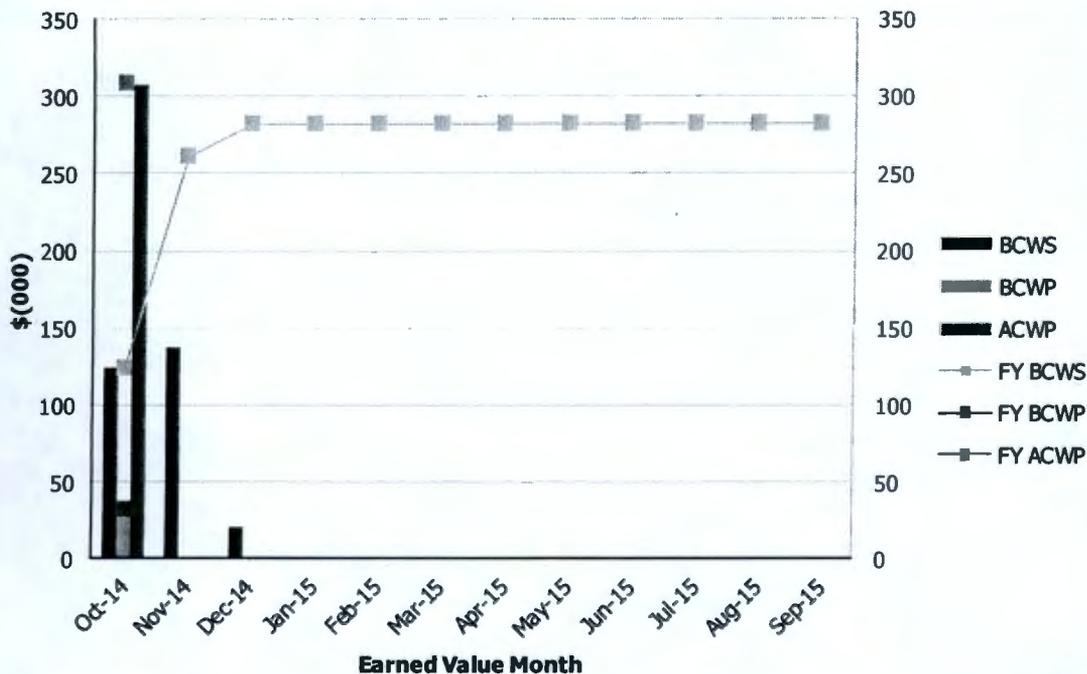
**Supplemental Treatment**

The current month favorable schedule variance (SV) of \$0K is within the reporting threshold.

The current month unfavorable cost variance (CV) of (\$2K) is within the reporting threshold.

**Tank Farms ORP-0014  
Treat Waste 5.5**

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 2014	\$124	\$32	\$308	0.26	0.10	\$124	\$32	\$308	0.26	0.10
Nov 2014	\$137					\$261				
Dec 2014	\$21					\$282				
Jan 2015	\$0					\$282				
Feb 2015	\$0					\$282				
Mar 2015	\$0					\$282				
Apr 2015	\$0					\$282				
May 2015	\$0					\$282				
Jun 2015	\$0					\$282				
Jul 2015	\$0					\$282				
Aug 2015	\$0					\$282				
Sep 2015	\$0					\$282				
<b>CTD</b>	<b>\$4,423</b>	<b>\$4,578</b>	<b>\$4,705</b>	<b>1.03</b>	<b>0.97</b>					

**Treat Waste**

The current month unfavorable schedule variance (SV) of (\$92K) is within the reporting threshold.

The current month unfavorable cost variance (CV) of (\$276K) is due to:

- No corrective action required. October results reflect the effort required to replan FY2015 work due to the Continuing Resolution and the delay in obtaining capital funding for LAWPS Preliminary Design. This replanning work was not part of the original LAWPS schedule, nor is the effort devoted to Advanced Conceptual Design in lieu of funding to begin Preliminary Design.

## **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: Complete. Ecology and ORP agreed at the September 25, 2014 TPA Project Managers' meeting that this milestone was closed, though M-045-92 remains open.

**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: Complete. ORP submitted this deliverable to ECY on September 17, 2014, via letter 14-TF-0100.

**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-0054.

**M-045-56J, Complete Implementation of Agreed to Interim Measures, Due:** July 31, 2014, Status: Complete. The M-045-56 annual meeting was held on July 22, 2014 and meeting minutes have been entered into the Administrative Record.

**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 in accordance with the HFFACO Secondary document review process a Phase 2 RCRA Facility Investigation (RFI) Report Draft A for WMA Area C (WMA-C), Due:** December 31, 2014, Status: On Schedule. This milestone was modified by HFFACO change package M-45-14-03, signed October 1, 2014.

**M-045-61A, Submit to Ecology for review and approval as an Agreement primary document, document review process, a Phase 2 Corrective Measures Study, and revision 0 update to the RFI Report for WMA-C), Due:** December 31, 2016, Status: On schedule. This milestone was created by HFFACO change package M-45-14-03, signed October 1, 2014.

**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.

**M-045-92N, Construct Barriers 1 and 2 in 241-SX Farm, Due: October 31, 2015, Status: On schedule.**

**M-045-92O, Submit a Final Design and Monitoring Plan for Interim Barrier 3, Due: June 30, 2015, Status: On schedule.**

**Significant Past Accomplishments:**

- Automated data collection systems for T Farm and TY Farm interim barrier monitoring continue gathering data
- Documentation of the WMA-C Phase 2 Resource Conservation and Recovery Act Facility Investigation Report continues.

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

- Complete documentation of the WMA-C Phase 2 Resource Conservation and Recovery Act Facility Investigation Report. Draft to complete M-045-61.

**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 was due January 29, 2015. Completed on August 6, 2014 with letter 14-TF-0086.

**Significant Past Accomplishments:**

- Submitted the Retrieval Data Report for C-110
- Completed post-retrieval logging of the drywells near C-104, C-109, and C-110 to support the retrieval data reports
- See discussions above and related discussions in Consent Decree report.

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

- Continue developing the WMA-C performance assessment
- Develop a draft of the Tier 1 (framework) closure plan for WMA C as required by the TPA
- Initiate a performance assessment for WMA A/AX.
- See discussions above and related discussions in Consent Decree report.

**Issues:**

A new deliverable date for the Corrective Measures Implementation Plan, M-045-62, will need to be established based on the modification to milestone M-045-61 and M-045-61A. ORP and Ecology continue to meet to develop an integrated path forward that addresses all the deliverables associated with Milestone 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	Water Dissolution
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:**

None.

**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**

**December 2014**

**Office of River Protection**  
**Consent Decree 08-5085-FVS**  
**Monthly Summary Report**

**December 2014 (Monthly Summary Report/Project Earned Value Management System  
reflects October 2014 information)**

<b>Page</b>	<b>Topic</b>	<b>Leads</b>
3	CD Milestone Statistics/Status	Bryan Trimberger/Dan McDonald/Jeff Lyon
4	Single-Shell Tank Retrieval Program <ul style="list-style-type: none"> <li>• D-00B-01, D-00B-02, D-00B-03, D-00B-04</li> </ul>	Chris Kemp/Jeff Lyon
5	Tank Waste Retrieval Work Plan Status <ul style="list-style-type: none"> <li>• Consent Decree Appendix C</li> </ul>	Chris Kemp/Jeff Lyon
6	Single-Shell Tank Retrieval Monthly and Fiscal Year Earned Value Management System Data	Chris Kemp/Jeff Lyon
8	Waste Treatment and Immobilization Plant Project <ul style="list-style-type: none"> <li>• D-00A-06, D-00A-17, D-00A-01</li> </ul>	Delmar Noyes/Dan McDonald
11	Pretreatment Facility <ul style="list-style-type: none"> <li>• D-00A-18, D-00A-19, D-00A-13, D-00A-14, D-00A-15, D-00A-16</li> </ul>	Wahed Abdul/Dan McDonald
14	High-Level Waste Facility <ul style="list-style-type: none"> <li>• D-00A-20, D-00A-21, D-00A-02, D-00A-03</li> </ul>	Wahed Abdul/Dan McDonald
17	Low-Activity Waste Facility <ul style="list-style-type: none"> <li>• D-00A-07, D-00A-08, D-00A-09</li> </ul>	Jeff Bruggeman/Dan McDonald
19	Balance of Facilities <ul style="list-style-type: none"> <li>• D-00A-12</li> </ul>	Jason Young/Dan McDonald
21	Analytical Laboratory <ul style="list-style-type: none"> <li>• D-00A-005</li> </ul>	

### 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	Water Dissolution
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:

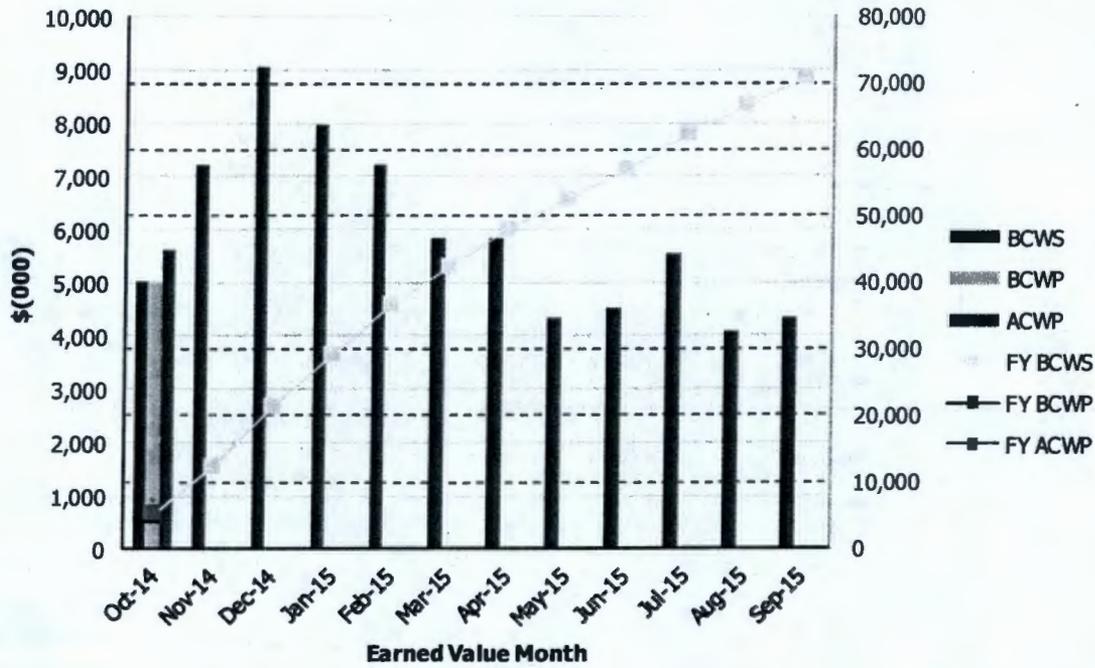
None.

#### Issues:

None.

**Tank Farms ORP-0014**  
**Retrieve and Close SST's 5.02**

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 2014	\$5,024	\$5,011	\$5,609	1.00	0.89	\$5,024	\$5,011	\$5,609	1.00	0.89
Nov 2014	\$7,212					\$12,236				
Dec 2014	\$9,069					\$21,304				
Jan 2015	\$7,970					\$29,275				
Feb 2015	\$7,208					\$36,482				
Mar 2015	\$5,831					\$42,313				
Apr 2015	\$5,829					\$48,142				
May 2015	\$4,316					\$52,458				
Jun 2015	\$4,503					\$56,961				
Jul 2015	\$5,525					\$62,486				
Aug 2015	\$4,071					\$66,558				
Sep 2015	\$4,329					\$70,887				
CTD	\$510,523	\$500,428	\$514,952	0.98	0.97					

***Retrieval and Close Single-Shell Tanks***

The current month unfavorable cost variance (CV) of (\$13k) is within the reporting threshold.

The current month unfavorable schedule variance (SV) of (\$598k) is due to nonperformance of Single-Shell Tank C-105 retrieval activities due to the plugged slurry distributor in receiver Tank AN-106 and shutdown of C-105 vacuum retrieval and stepping back and doing a path forward analysis using a systems engineering approach.

***Corrective Action:*** Slurry distributor to be replaced. Complete the systems engineering evaluation for C-105 and startup retrieval using high pressure water and modified sluicing along with potential evaluation of another third retrieval technology method.

## 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 2,636 full-time equivalent contractor (Bechtel National, Inc. [BNI]) and subcontractor personnel. This includes 592 craft, 394 nonmanual, and 170 subcontractor full-time equivalent personnel working at the WTP construction site (all facilities).

As of October 2014, the combined Low-Activity Waste (LAW) Facility, Analytical Laboratory (LAB), and Balance of Facilities (BOF) (collectively LBL) were 65 percent complete, design and engineering was 79 percent complete, procurement was 83 percent complete, construction was 73 percent complete, and startup and commissioning was 11 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 October 2014, the cumulative to-date WTP Project schedule variance was a negative \$54.7 million, and the cumulative to-date WTP Project cost variance was a negative \$17.6 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 October 2014.

### Significant Past Accomplishments:

- Finalized technical team strategic plans (PT)
- Installed 13 tons of structural steel – mostly steel to support slabs 4019 and 4020 over the canister handling cave (HLW)
- Completed South wall castable refractory in melters 1 and 2 (LAW)
- Completed lower glass pool refractory build out in melters 1 and 2 (LAW)
- Completed air integrity test of the fire protection sprinkler system (LAB).

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

- Complete modification at Full-Scale Vessel Testing (FSVT) Facility to support Phase 2 testing for the pulse jet mixer (PJM) controls (PT)

- DOE approval of PT Facility Resumption Plan to support DOE authorization to proceed with production engineering (PT)
- Complete the LAW Facility design and operability review (LAW)
- Complete construction of the Analytical Laboratory (LAB)
- Complete construction of the Glass Former Storage Facility (BOF).

**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 related to WTP include, among others, PJMs, corrosion/erosion in piping and vessels, hydrogen accumulation, criticality, and ventilation.

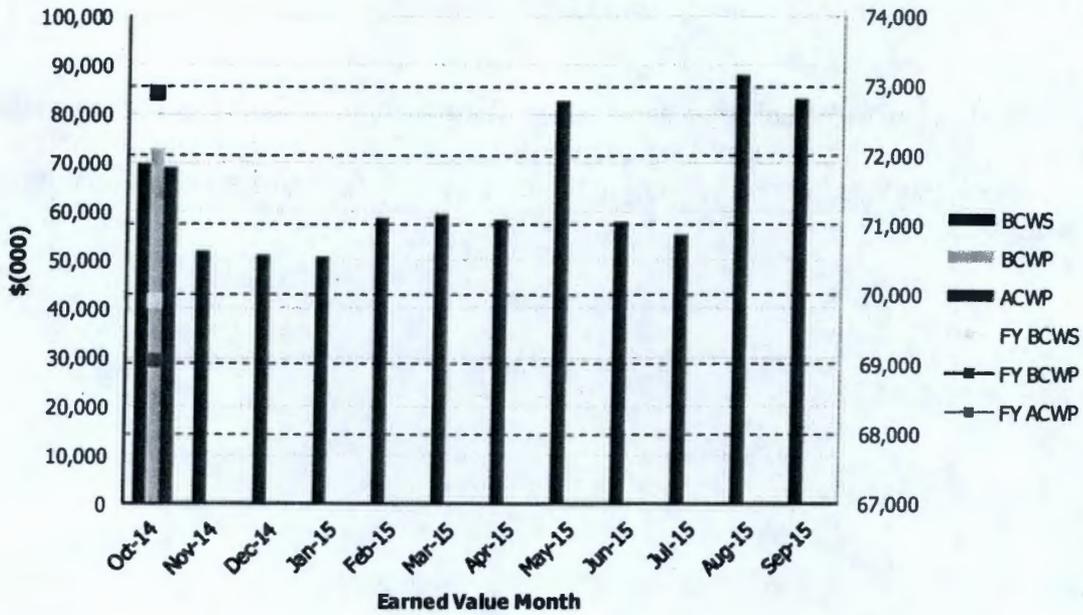
**EXC-01a: Fiscal Year Cost and Schedule Report**

Data Set: FY 2015 Earned Value Data

Data as of: October 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 2014	\$69,893	\$72,879	\$69,039	1.04	1.06	\$69,893	\$72,879	\$69,039	1.04	1.06
Nov 2014	\$51,713									
Dec 2014	\$51,124									
Jan 2015	\$50,777									
Feb 2015	\$58,648									
Mar 2015	\$59,518									
Apr 2015	\$58,452									
May 2015	\$82,721									
Jun 2015	\$57,902									
Jul 2015	\$55,322									
Aug 2015	\$88,069									
Sep 2015	\$83,038									
PTD	\$8,441,372	\$8,448,217	\$8,441,824	1.00	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*

PT = pretreatment.

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.

Phase 1 of the FSVT is continuing for the PJM controls utilizing the RLD-8T vessel. Technical review teams continue to evaluate open PT Facility technical issues. An evaluation is ongoing relative to a standardized design for high-solids vessels within the PT Facility. BNI has submitted resolution plans for eight technical issues: T1, Hydrogen in Vessels; T2, Criticality; T3, Hydrogen in Piping and Ancillary Vessels (HPAV); T4, Mixing; T5, Erosion Corrosion; T6, PT Facility Optimization; T7, Vessel Analysis; and T8, Ventilation.

BNI has transmitted the Pretreatment Safety Design Strategy Plan to DOE for review.

### Significant Past Accomplishments:

- Continued testing of PJM controls at the FSVT Facility
- Continued conceptual design for a standardized high-solids vessel
- Finalized technical team strategic plans.

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

- DOE approval of the Pretreatment Resumption Plan to support the authorization to proceed with production engineering
- HLW heating, ventilation, and air-conditioning (HVAC) C3V and C5V System Design Description, Rev. A
- Complete modification at FSVT Facility to support Phase 2 testing for the PJM controls
- Finalize test plan, simulant composition, and test instrument list for full-scale vessel mixing tests

- Complete SHSVD Design Analysis Technical Pre-Qualification
- Define standardized vessel selection criteria in support of vessel mixing resolution
- Start informational testing in 8-ft test vessel for down selection of features pertaining to standardized high-solids vessel design.

**Issues:**

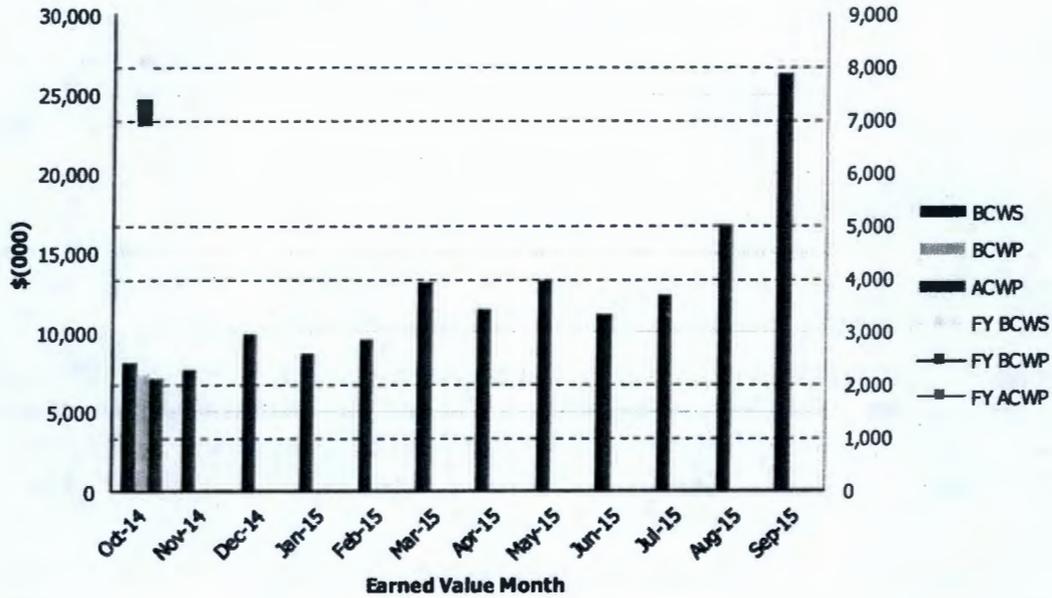
\*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone. Technical issues related to WTP include, among others, PJMs, corrosion/erosion in piping and vessels, hydrogen accumulation, criticality, and ventilation.

Data Set: FY 2015 Earned Value Data

Data as of: October 2014

**River Protection Project  
Pretreatment Facility (WBS 1.01)**

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 2014	\$8,100	\$7,285	\$7,050	0.90	1.03	\$8,100	\$7,285	\$7,050	0.90	1.03
Nov 2014	\$7,582									
Dec 2014	\$9,882									
Jan 2015	\$8,566									
Feb 2015	\$9,549									
Mar 2015	\$13,119									
Apr 2015	\$11,373									
May 2015	\$13,263									
Jun 2015	\$11,122									
Jul 2015	\$12,320									
Aug 2015	\$16,653									
Sep 2015	\$26,265									

PTD \$1,614,771 \$1,613,904 \$1,613,677 1.00 1.00

Mon - SV	Mon - CV
(\$815)	\$235
(\$867)	\$227

FY - SV	FY - CV
(\$815)	\$235

## 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.

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 been significantly slowed down, resulting in minimal change to the percent completion status since September.

Construction is continuing on concrete placements and installation of support steel and crane rails in the canister handling cave. Testing of high-efficiency particulate air (HEPA) filters at Mississippi State University (MSU) is continuing to select the filters that would meet the design and operations requirements.

BNI is focused on radioactive liquid waste disposal (RLD) system redesign and hazards analysis, engineering studies to develop path forwards for resolution of issues regarding an HVAC system, melter and other solid waste handling system, and development of facility design description and system design descriptions as required by the newly implemented Systems Engineering Management Plan.

### Significant Past Accomplishments:

- One concrete placement was made (wall 3123)
- Completed pour of slab (4014)
- Continued testing on HEPA filter at MSU
- Installed 13 tons of structural steel – mostly steel to support slabs 4019 and 4020 over the canister handling cave
- Continued installation of the crane rails in canister handling cave
- Completed RLD Vessel Hazard Analysis.

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

- Issue request for proposal for vendor design of RLD-8 vessel
- Complete glove box 29 and 42 assembly/fabrication for auto samplers
- Complete draft analysis of single-point failures in support of failure mode analysis

- Perform HEPA filter qualification testing at MSU
- Continue activities to support the RLD system redesign
- Process Safety Basis Change Package for RLD system to support procurement
- Start mold remediation.

**Issues:**

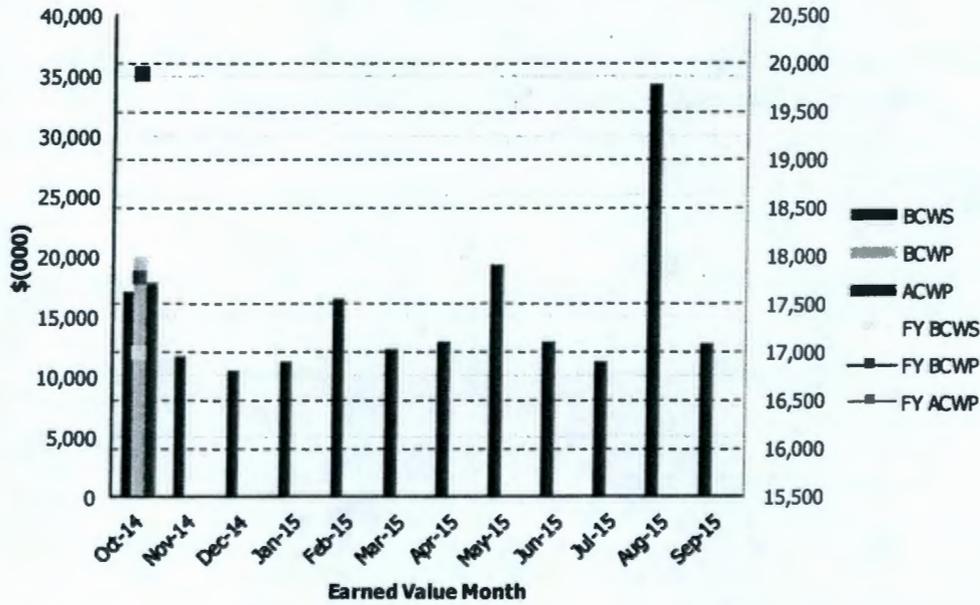
\*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone. Technical issues related to the WTP include, among others, PJMs, corrosion/erosion in piping and vessels, hydrogen accumulation, criticality, and ventilation.

Data Set: FY 2015 Earned Value Data

Data as of: October 2014

**River Protection Project  
Low-Activity Waste Facility (WBS 1.02)**

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 2014	\$16,994	\$19,896	\$17,781	1.17	1.12	\$16,994	\$19,896	\$17,781	1.17	1.12
Nov 2014	\$11,700									
Dec 2014	\$10,483									
Jan 2015	\$11,190									
Feb 2015	\$16,409									
Mar 2015	\$12,294									
Apr 2015	\$12,797									
May 2015	\$19,337									
Jun 2015	\$12,794									
Jul 2015	\$11,146									
Aug 2015	\$34,250									
Sep 2015	\$12,635									
PTD	\$991,189	\$996,897	\$995,949	1.01	1.00					

Mon - SV	Mon - CV
\$2,902	\$2,116
\$5,708	\$947

FY - SV	FY - CV
\$2,902	\$2,116

## 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.

The LAW Facility will process the LAW 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 October 2014, the LAW Facility was 66 percent complete overall, with engineering design 77 percent complete, procurement 76 percent complete, construction 75 percent complete, and startup and commissioning 7 percent complete.

### Significant Past Accomplishments:

- Completed south wall castable refractory in melters 1 and 2
- Completed lower glass pool refractory build out in melters 1 and 2
- Installed over 1,840 linear feet of conduit and pulled approximately 16,490 linear feet of cable
- Installed over 450 linear feet of process piping and hydro-tested 10,120 linear feet of facility piping
- Received 50 LAW tags (i.e., pressure transmitters, racks, expansion joints restriction orifices, and control valves).

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

- Complete subcontractor work scope in the annex
- Award the purchase order for the active gas analyzers
- Complete the LAW Facility design and operability review
- Complete castable refractory 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.

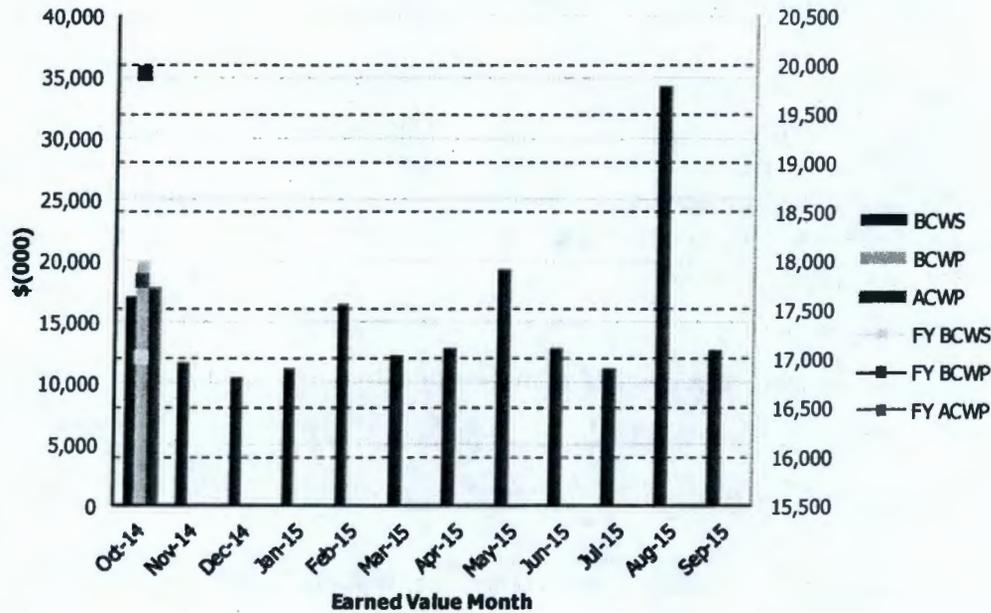
**EXC-01a: Fiscal Year Cost and Schedule Report**

Data Set: FY 2015 Earned Value Data

Data as of: October 2014

**River Protection Project  
Low-Activity Waste Facility (WBS 1.02)**

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 2014	\$16,994	\$19,896	\$17,781	1.17	1.12	\$16,994	\$19,896	\$17,781	1.17	1.12
Nov 2014	\$11,700									
Dec 2014	\$10,483									
Jan 2015	\$11,190									
Feb 2015	\$16,409									
Mar 2015	\$12,294									
Apr 2015	\$12,797									
May 2015	\$19,337									
Jun 2015	\$12,794									
Jul 2015	\$11,146									
Aug 2015	\$34,250									
Sep 2015	\$12,635									
<b>PTD</b>	<b>\$991,189</b>	<b>\$996,897</b>	<b>\$995,949</b>	<b>1.01</b>	<b>1.00</b>					

## 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 October 2014, BOF was 56 percent complete overall, with engineering design 74 percent complete, procurement 67 percent complete, construction 81 percent complete, and startup and commissioning 12 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 efforts are focused on completion of the Glass Former Facility and construction of the Standby Diesel Generator Facility. BNI is initiating design activities to incorporate a permanent capability to directly feed LAW.

### Significant Past Accomplishments:

- Completed 5,900 linear feet of cable and 650 linear feet of conduit
- Completed 480 linear feet of utility rack and 120 linear feet of Chiller Compressor Building insulation (subcontractor DKB)
- Completed touch-up in Chiller Compressor Building (subcontractor FD Thomas).

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

- Complete construction of the Glass Former Storage Facility
- Receive the replacement nonradioactive liquid waste disposal system motor control panel
- 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.

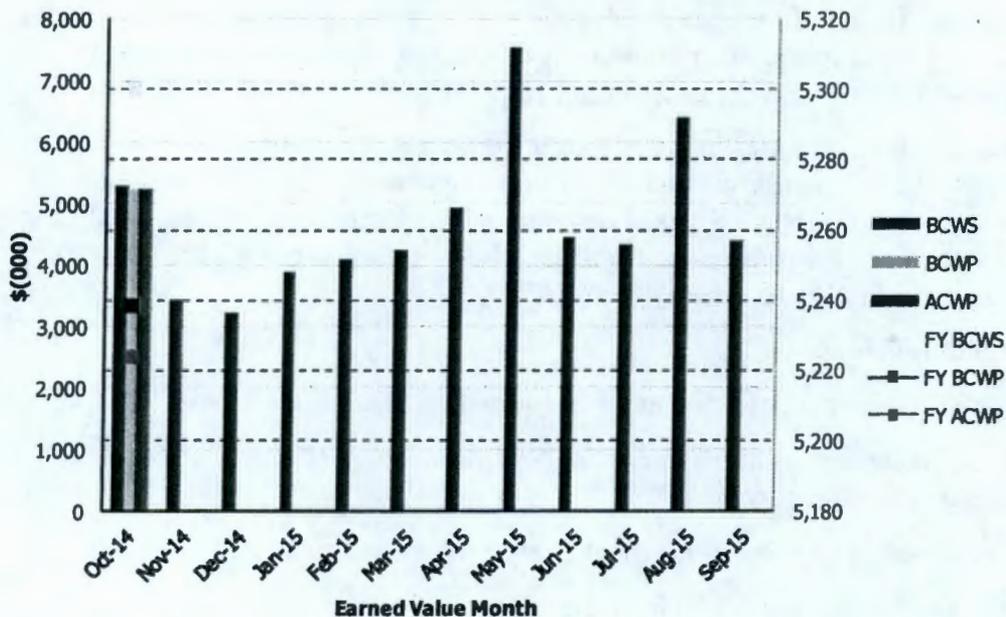
**EXC-01a: Fiscal Year Cost and Schedule Report**

Data Set: FY 2015 Earned Value Data

Data as of: October 2014

**River Protection Project  
Balance of Facilities (WBS 1.05)**

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 2014	\$5,300	\$5,238	\$5,223	0.99	1.00	\$5,300	\$5,238	\$5,223	0.99	1.00
Nov 2014	\$3,429									
Dec 2014	\$3,240									
Jan 2015	\$3,900									
Feb 2015	\$4,085									
Mar 2015	\$4,233									
Apr 2015	\$4,945									
May 2015	\$7,550									
Jun 2015	\$4,458									
Jul 2015	\$4,347									
Aug 2015	\$6,414									
Sep 2015	\$4,410									
PTD	\$351,966	\$352,336	\$352,354	1.00	1.00					

## 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 October 2014, the LAB was 73 percent complete overall, with engineering design 80 percent complete, procurement 87 percent complete, construction 92 percent complete, and startup and commissioning 19 percent complete.

Engineering efforts are focused on closure of nonconformance reports and construction deficiency reports. In addition engineering is supporting completion of construction punchlist items. Construction efforts are focused on installation of remaining electrical commodities and penetration seals to support the completion of LAB construction.

### Significant Past Accomplishments:

- Continued cable pulls and terminations (930 linear feet in October – 86% complete)
- Continued installation of conduit (320 linear feet in October – 99% complete)
- Completed pipe closure welds and pipe support installation post vessel repairs
- Completed air integrity test of the fire protection sprinkler system (subcontractor Patriot).

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

- Complete electrical commodity installation
- Complete penetration seal installation
- Initiate component level testing of select LAB systems.

### Issues:

No major issues at this time.

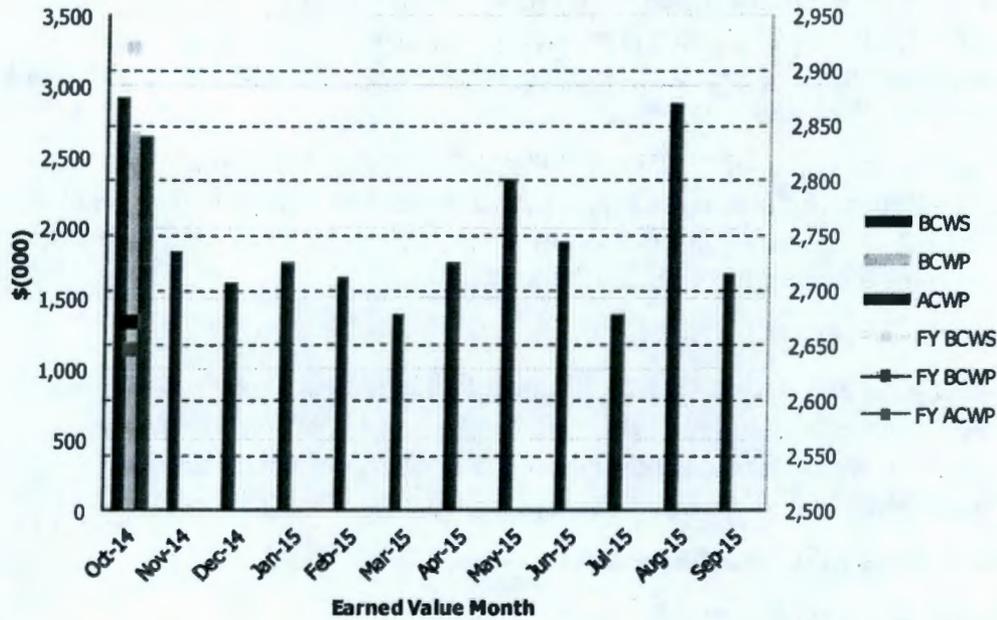
**EXC-01a: Fiscal Year Cost and Schedule Report**

Data Set: FY 2015 Earned Value Data

Data as of: October 2014

**River Protection Project  
Analytical Laboratory (WBS 1.06)**

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 2014	\$2,920	\$2,670	\$2,645	0.91	1.01	\$2,920	\$2,670	\$2,645	0.91	1.01
Nov 2014	\$1,827									
Dec 2014	\$1,614									
Jan 2015	\$1,757									
Feb 2015	\$1,647									
Mar 2015	\$1,392									
Apr 2015	\$1,758									
May 2015	\$2,341									
Jun 2015	\$1,902									
Jul 2015	\$1,388									
Aug 2015	\$2,879									
Sep 2015	\$1,676									
<b>PTD</b>	<b>\$285,435</b>	<b>\$285,601</b>	<b>\$285,774</b>	<b>1.00</b>	<b>1.00</b>					

## ORP/Ecology TPA and CD Agreements, Issues, and Action Items – November 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. 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>

**ORP/Ecology TPA and CD Agreements, Issues, and Action Items – November 2014**

<b>Tank Farms Action Items</b>							
<b>#</b>	<b>Action ID</b>	<b>Start Date</b>	<b>Action</b>	<b>Action Status</b>	<b>Updates / Needs for Closure</b>	<b>Actionee(s)</b>	<b>Date Closed</b>
1	TF-14-08-01	08/21/14	ECY requested information on the evaporator maintenance protocols and the depth and breadth of the maintenance spares.	<b>Open.</b>		Hernandez	
2	TF-14-08-01	08/21/14	ORP took an action to set up discussions with Ecology on DFLAW and the WTP TOC integrated readiness support starting in October 2014.	<b>Open.</b>		Pfaff / Wrzesinski	
3	TF-14-06-02	06/19/14	Schedule an oversight opportunity with ORP and ECY for the WMA C PA modeling	<b>Open.</b>	Meetings held on 09/11/14 and 10/30/14. Meetings scheduled for 12/16/14 and 12/17/14	Kemp / Beach	
4	TF-14-02-02	02/18/14	ECY would like a schedule/project management plan (if available) for the closure of WMA C.	<b>Open.</b>	Closure contract modification still in progress	Kemp	
5	TF-14-01-01	01/28/14	ORP, ECY, and WRPS are working to complete revisions on the Hose-In-Hose Transfer Line Management Plan (RPP-12711) Revision 7.	<b>Open.</b>	Meeting with ORP, ECY, and WRPS was held on 11/17/14. The next full meeting will be in early January 2015.	Lynch / Mathey / Fox	
6	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	
7	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>	ORP and ECY signed TPA Change Package M-45-14-03 separating M-045-61 into two milestones, one for the RFI, one for the CMS.	Kemp / Eberlein / Price	

## ORP/Ecology TPA and CD Agreements, Issues, and Action Items – November 2014

<b>WTP Action Items</b>							
<b>#</b>	<b>Action ID</b>	<b>Start Date</b>	<b>Action</b>	<b>Action Status</b>	<b>Updates / Needs for Closure</b>	<b>Actionee(s)</b>	<b>Date Closed</b>
1	WTP-14-10-01	10/23/14	ECY requests information on DOE's plans and timeline for the LAW (replacement) melter assembly building.	<b>Open.</b>		Jeff Bruggeman	
2	WTP-14-10-02	10/23/14	ECY would like to know what the plans are for operating BOF in support of DFLAW and then transitioning into full WTP operations.	<b>Open.</b>	Jason will address via scheduled briefing of ECY	Jason Young	
3	WTP-14-10-03	10/23/14	ECY and ORP need to discuss how to document LAB substantially complete milestone after completion of RLD vessel repairs.	<b>Open.</b>	Jason will meet with ECY to discuss any additional information that is requested	Jason Young	
4	WTP-14-10-04	10/23/14	ECY requests a status update to include a schedule on the 8 technical team issues for HLW and PT.	<b>Open.</b>		Wahed Abdul	
5	WTP-14-10-05	10/23/14	ECY requests on update on the details of the 2 year work plan for HLW and PT.	<b>Open.</b>		Wahed Abdul	
6	WTP-14-10-06	10/23/14	ECY requests a status update on the DF LAW Program and flow sheet integration.	<b>Open.</b>		Wendell Wrzesinski	
7	WTP-14-06-02	06/19/14	ECY requests that DOE provide a presentation on how DOE incorporates, vets, and considers all technical issues (including the Safety Design Strategy).	<b>Open.</b>		Delmar Noyes	
8	WTP-14-06-03	06/19/14	ECY requests a briefing on the LAW design operability review before the September timeframe.	<b>Open.</b>		Jeff Bruggeman	
9	WTP-14-04-01	04/22/14	ORP and ECY have a placeholder action to hold a comprehensive briefing/discussion on the PT efforts.	<b>Open.</b>		Delmar Noyes	

### WORKING ORP Key Documents List – December 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
Submit to Ecology, in accordance with HFFACO secondary document review process, a phase 2 RCRA Facility Investigation (RFI) report Draft A 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 Draft A RFI Report for WMA C	12/31/14				C. Kemp	S. Eberlein	J. Lyon	• Reported as To Be Missed in the March 2013 TPA PMM. Discussions ongoing at the PM level. • TPA Change Package M-45-14-03 signed on 10/01/14 split up the WMA C RFI and CMS into separate deliverables.
Submit to Ecology, as a primary document, a Phase 2 Corrective Measures Study (CMS), and Revision 0 update to the RFI Report for WMA C	M-045-61A	Phase 2 CMS and Revision 0 of RFI for WMA C	12/31/16							• TPA Change Package M-45-14-03 signed on 10/01/14 split up the WMA C RFI and CMS into separate deliverables.
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.
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.
	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.
M-045-91 Interim Milestones and Target Dates for SST Integrity Implementing the Expert Panel's Recommendations	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 Pkg (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	
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 – December 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.

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