

# ORP TPA Project Managers' Monthly (PMM) Meeting September 25, 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: 11-12. 2014
Wahed Abdul, DOE-ORP	Date: 11/12/14.
Jason Young DOE-ORP	Date: 11/13/14
Jeff Bruggeman, DOE ORP	Date: 11/13/14
J. Lyon, Project Manager,	Date: 11-17-14
J. D. McDonald, Project Manager, Washington State Department of Ecology	Date: 11-14-14
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# ORP Project Managers Meeting September 25, 2014 2440 Stevens Center Richland, Washington Meeting Minutes Transmittal

# Distribution:

W. Abdul	ORP	H6-60
S. M. Braswell	MSA	H6-60
J. M Bruggeman	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
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. Mattlin	ORP	H6-60
D. L. Noyes	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
I. Wheeler	ORP	H6-60
W. R. Wrzesinski	ORP	H6-60
J. D. Young	ORP	H6-60
D. Becker	Ecology	H0-57
R. K. Biyani	Ecology	H0-57
A. S. Carlson	Ecology	H0-57
T.Z. Gae	Ecology	H0-57
J. J. Lyon	Ecology	H0-57
J. D. McDonald	Ecology	H0-57
Ju Price   VOM	Ecology	H0-57
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

ADMINISTRATIVE RECORD – Heather Childers: H6-08

#### 1.0 Administrative Items

<u>Recent Items Entered/To Be Entered into the TPA Administrative Record</u> – ORP stated that there were five items entered into the Administrative Record (see handout).

# 2.0 Agreements, Issues, Actions

The following actions were updated:

Action No. 1 (TF-14-08-01) – ORP stated that a meeting was held with the maintenance manager and the electrical manager at the 242-A Evaporator, and the two managers are working to provide the information requested by Ecology. This action remains open.

Action No. 2 (TF-14-08-01) — ORP stated that a meeting was held with Ecology, and a briefing was given on the status of One System and DFLAW planning. An updated briefing will be provided to Ecology in October 2014; the meeting has not been scheduled. Ecology staff responsible for DSTs and the 242-A Evaporator requested inclusion at any meetings that involve a DST or 242-A Evaporator operation that integrates with DFLAW. Ecology stated that the request does not require a formal action unless meetings occur without being notified. This action remains open.

Action No. 3 (TF-14-07-02) – ORP stated that a briefing has been prepared, and ORP will be contacting Ecology to schedule the briefing next week. This action remains open.

Action No. 4 (TF-14-06-02) – ORP noted a meeting was held 9/11/14, and another meeting is scheduled 10/30/14, during which a modeling demonstration will be provided. This action remains open.

Action No. 5 (TF-14-02-02) – ORP stated that it is currently in a contract modification proposal phase with WRPS, and when the contract mod is completed, closure schedules will be developed along with more definition for the closure of WMA-C. ORP noted that a project management plan for the closure of WMA-C wouldn't necessarily be available when the schedules are provided. This action remains open.

Action No. 6 (TF-14-01-01) – Ecology stated that ORP canceled the last scheduled meeting and requested that the meeting be rescheduled within two weeks. This action remains open.

Action No. 7 (TF-13-12-01) – Ecology stated that a table has been created. This action remains open.

Action No. 8 (TF-13-02-03) – ORP stated Ecology has assigned new staff to take the lead for the continued discussions on M-045-61/-62 and the closure discussion. ORP noted that milestone M-045-61 has been reported as to be missed since March 2014, and discussions have been ongoing with Ecology since March and will continue. ORP stated that the RCRA Facility Investigation (RFI) associated with M-045-61 will be provided to Ecology at the end of calendar year 2014. ORP indicated that with the ongoing discussions, it would be appropriate to defer M-045-61 until

June 30, 2015. ORP provided Ecology with a draft TPA change package to extend M-045-61 to 6/30/15, and requested comments from Ecology for incorporation. ORP added that a signed change package will be hand-delivered to Ecology on Monday, September 28, 2014.

Ecology asked if the One System exists and if there was a representative present for the One System. ORP responded that the One System does exist, and asked if Ecology had a question or a request for an action. Ecology requested that when the One System group meets to discuss any of the facilities that may or may not be constructed in the next ten years, and if those discussions involve the double-shell tank (DST) requirements or integration, or the 242-A Evaporator, that Ecology is included in those discussions. ORP agreed to forward Ecology's request to the One System organization.

TPA and CD Milestone Status - ORP stated that the TPA milestones are either completed or are on schedule, with the exception of M-045-61/-62/-82, which have been reported as to be missed. ORP noted that M-062-40ZZ, which is the one-time supplemental treatment report, was deleted in August 2014. ORP noted that there was no change in status to the CD milestones.

# 3.0 Review of the ORP Summary

#### **Tank Farms**

System Plan – ORP stated that currently all the milestones are on schedule. ORP referred to No. 11 under significant past accomplishments in today's monthly summary, which states that System Plan 7 was reviewed and all the comments were resolved and incorporated into the document, and stated that System Plan 7 is in the Department of Justice (DOJ). Ecology asked if the DOJ is part of the review team or part of the release team. ORP responded that the DOJ is currently reviewing System Plan 7, and stated that the DOJ is probably part of both the review team and release team. ORP noted that the milestone due date for release of System Plan 7 is October 31, 2014.

### Acquisition of New Facilities; M-90-00; M-47-00:

ORP stated that M-090-13 and M-047-07 are on schedule for submittal of the deliverables by March 31, 2016, in accordance with the TPA change packages that were signed July 14, 2014. ORP noted M-090-00 and M-047-00 are also on schedule.

Supplemental Treatment and Part B Permit Applications; M-62-00, -20, -30, -45:

ORP noted that M-062-40ZZ has been deleted, and that the remaining milestones are on schedule.

<u>242-A Evaporator Status</u> – ORP reported that Ecology sent an email with several questions, and the questions have been addressed as follows:

1) Was the campaign completed with the two passes that were expected? The first pass was started on September 11, 2014, and it was completed as scheduled on September 19, 2014.

The slurry from the first pass goes into a slurry tank and then has to be sent back to the feed tank for a second pass. The first campaign will have two passes.

- 2) How many days did the 242-A Evaporator operate? The evaporator operated eight-and-a-half days, from 9/11/through 9/19.
- 3) Were any problems incurred during the run? There were a few adjustments made, but they were not considered problems. There was a signal wiring modification done, and it was addressed within an hour. A pump coupling had to be replaced in the water service building. The coupling consists of a rubber gasket that keeps everything intact and water from spraying out. A leak detector switch on the blackflow preventer faulted and was changed out. The switch is also located in the water service building.
- 4) How much volume was achieved during the campaign? The throughput totaled over 950,000 gallons, with a waste feed reduction of over 365,000 gallons.
- 5) Does the campaign have a reduction goal set? For the upcoming out years (2015, '16, '17), it is estimated anywhere between one million to 1,250,000 gallons per year.
- 6) What is the next scheduled campaign date? The next campaign date is estimated to start October 17, 2014.

ORP stated that currently the 242-A Evaporator is at a standstill while the slurry is being sent back into the waste feed tank. ORP noted that while the slurry is in the waste feed tank, a crane will be brought into the evaporator to move some of the equipment off the fourth floor that hasn't been used in the last few years. ORP stated that the equipment removal should take a half shift to a shift, and when that is completed the next campaign pass will be started, with an estimated start date of either tomorrow (9/26) or this weekend.

ORP addressed action No. 1 (TF-14-08-01) from the agreements, issues and action items table (see handout) regarding the spare parts for the evaporator. ORP stated that a team has been spending between 10 and 14 hours per day at the evaporator to oversee the quality of operations during the campaign passes. ORP noted that the oversight was an outcome of the readiness assessment, and WRPS has had senior staff present at the evaporator almost 24/7. When the next pass begins, WRPS will also have senior staff present for the first couple of days.

Ecology stated that it would be helpful to have information provided, rather than having to make a request for the information. Ecology referred to the end of the first campaign pass as an example, and that a status on the campaign would be appreciated. Ecology acknowledged that teams are busy with the current campaign effort. ORP responded that senior management made the determination that the full campaign of both passes would be completed before the information was released. ORP added that as a colleague, direct contact with Ecology via e-mail will be made to provide current information. Ecology stated that it was good news regarding the evaporator campaign, and it was exceptional that over 365,000 gallons were achieved. ORP stated that it was beyond exceptional, since about 250,000 gallons were expected for the waste volume reduction.

Double-Shell Tank System Update – ORP reported that the functional testing has been completed on the phased array electro magnet acoustic transducer (EMAT) equipment, and demonstration tests are currently being done. ORP stated that the EMAT will be mounted on the same crawler that the ultrasonic testing (UT) transducer had been mounted on, and the EMAT will screen the primary tank for areas of pitting and cracks much quicker than the UT. ORP noted that the UT can be used, if needed, to go back in the tank. ORP indicated that the plan is to deploy the EMAT next fiscal year. ORP stated that Ecology has asked to observe the EMAT, and a time will be set up within the next two weeks for anyone who is interested. Ecology suggested setting up a briefing on the EMAT when it is ready to be deployed.

ORP stated that as the weekly inspections of the AY-102 risers are done, the information is being forwarded to Ecology. ORP noted the tanks that underwent the comprehensive annulus inspections in FY14. Ecology asked if the annulus inspections are part of the integrity assessment requirements. ORP responded that they were part of the requirements. Ecology asked how the requirements were established. ORP explained that when the last Independent Qualified Registered Professional Engineer (IQRPE) assessment was done, the engineer evaluated the inspection program at the time, which was to inspect four risers in a tank every five to seven years. ORP stated that since that evaluation was done, the program was enhanced to conduct the inspections at a frequency of three years, and to go in as many risers as needed to obtain 95 percent or better coverage. ORP added that the new program requirements will be what the IQRPE reviews this time. Ecology asked if the annulus inspection reports are forwarded to Ecology. ORP responded that the reports are not sent to Ecology on a routine basis, although reports have been sent in the past. Ecology stated that when it comes out to observe the phased array equipment, the reports could be discussed at that time. Ecology suggested that ORP could bring one of the annulus inspection reports.

# M-045-91, SST Integrity Assurance:

ORP stated that the milestones are on schedule. MSA reported that the change package associated with milestone M-045-91H has been entered into the Administrative Record, and the change package is being prepared for distribution. MSA noted that the milestone will be modified and will be entered into the TPA system.

Significant Past Accomplishments – ORP stated that the SSTIP expert panel convened in August 2014, and Ecology staff participated in the meetings. ORP noted that the SST integrity assurance milestones were developed to address recommendations from the expert panel when it convened over four years ago. ORP stated that the expert panel was pleased with the progress, and a letter from the panel is expected as an outcome from the meeting.

Significant Planned Actions in the Next 6 Months — ORP noted that the results have been received from the lab on the sidewall coring in tank A-106 and are being compiled for issuing the report. ORP stated that the Type 1 Analysis of Record has been completed and is in review by the experts. Ecology asked when the next IQRPE will be scheduled for both the SSTs and the DSTs. ORP responded that a proposal was received yesterday from an IQRPE to begin the process for the DSTs, and the intent is to begin the IQRPE in the near future. ORP noted that the IQRPE process for SSTs is scheduled for 2018, and the process has not been initiated. ORP indicated that after

meeting in 2015, if the decision is made to do anything additional, that decision may determine when to bring the IQRPE on board.

In Tank Characterization and Summary - ORP provided color photos depicting the accomplishment of obtaining the SY-102 core sample, which was the first core sample taken since 2008. Ecology asked if the core sample was complete. ORP indicated that the core sample was complete. Ecology asked how close the sampling effort was to the bottom of SY-102. ORP explained that the sampler gets within a few inches of the bottom of the tank, and the last two or three inches are usually syringed out. ORP added that they were successful in syringing all the way to the bottom of the tank, more or less. Ecology asked how ORP would know the bottom of the tank had been reached. ORP responded that an x-ray can be taken in the field to determine if there is anything in the core barrel, and there will be definitive evidence that something was sucked up when it is extruded at the lab. ORP stated that the core sampling was a success at SY-102, and the core sampler will be used much more, now that it is operational.

Ecology asked if ORP had a list of tanks it plans to core. ORP responded that there is a list that could be provided to Ecology. Ecology asked specifically if ORP is considering using the core sampler for C-111. ORP stated that C-111 is not currently one of the tanks on the list. Oregon Department of Energy (ODOE) asked how long the list is. ORP responded that every year a list of tanks is issued that are required or requested to be sampled for various needs, and that the number of tanks on the list for FY15 couldn't be stated at this time. ORP noted that the list of tanks is mostly for chemistry purposes and is not used for retrieval data sampling purposes. ORP added that currently there are no core samples scheduled for retrieval purposes in C Farm. ODOE stated that the syringe used to do sampling at the bottom of the tank was for sampling only and not for retrieval. ORP responded that ODOE's statement was correct. Ecology stated that there is one core that's done for corrosion chemistry, which is close to the sidewall, and the one that's closer to the middle of the tank is done for characterization.

Ecology suggested including the list of tanks for the core sampler in the monthly summary report under planned actions for the next six months, but making an exception and providing the list for the next 12 months. ORP took an action to provide the full year's scope of tanks for core sampling. Ecology requested an e-mail of the list. ORP pointed out that the list of tanks for core sampling is continually evaluated and is subject to change. ORP added that the high-level waste (HLW) expert panel that was recently on site for the DSTs suggested taking a core sample from the bottom of AY-102 before retrieval, and an evaluation is being done about whether AY-102 should be one of the next tanks to core sample. ORP noted that getting the core sampler in AY-102 could interfere with the field construction operations, although the equipment will be removed in the next month or two. Ecology noted that there were some air permitting issues associated with the core sampler and asked if those issues had been resolved. ORP responded that a status could be provided next month.

<u>Accomplishments</u> – ORP noted that leak detection pit grab samples were completed in AY-101 and AY-102, and the results indicated that the secondary liner has not been reached in either tank. ORP noted that the AN-106 sample at C-105 has been delayed and won't be done in October 2014.

Tank Operations Contract (TOC) Overview - ORP stated that a change was made to this section, and some of the discussion on the variances has been removed. ORP stated that one of the reasons is that the variances don't have as much value, since the report is several months old. Ecology stated that information has been obtained or issues have been identified with tank farms through the variances, and the variances have been helpful. Ecology asked how the variances are now reported. ORP responded that it was not clear why the variances were removed from the TOC overview. ORP took an action to determine why the variances are not being reported.

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

M-045-22 – ORP reported that the documents for the three target milestones (TO1, TO2, TO3) associated with M-045-22 have been submitted to Ecology, and it is believed that M-045-22 is complete. ORP stated that in meetings with Ecology last week and early this week, it was discussed that this milestone would be reported as complete during today's meeting. ORP noted that there were no objections. M-045-22 is noted as being completed on 9/25/2014 per this September 2014 ORP TPA Project Managers' Monthly meeting.

M-045-22-TO3 - ORP stated that the SX soil desiccation/contaminant removal was not effective with direct push holes, and that a larger diameter hole was needed, almost the size of well hole. ORP noted that the soil desiccation/contaminant removal could be applicable elsewhere or could be applicable in SX at a later time.

M-045-61/M-045-62 - ORP noted that these milestones are to be missed, and ORP has been in the discussion phase with Ecology regarding the milestones since March 2014. ORP provided Ecology a draft change package today (see action No. 8) and requested a response from Ecology. ORP added that if Ecology doesn't have any comments, a signed change package will be hand-delivered to Ecology on Monday, 9/29/14.

M-045-92 – ORP stated that inquiries were sent to Ecology, and a response was received, along with potential discussion of barriers in the Consent Decree negotiations. ORP noted that Ecology's position is that the parties should be working to the existing M-045-92 milestone.

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

M-045-82 – ORP noted that this milestone is to be missed, and it is associated, in part, with the M-045-61 discussions that are ongoing with Ecology.

 $\underline{\text{M-045-86}}$  – ORP stated that the retrieval data reports that are listed in today's summary are a complete list at this point.

Significant Planned Activities in the Next 6 Months - ORP noted that the C Farm Performance Assessment (PA) work is continuing with WRPS and INTERA.

<u>Tank Waste Retrieval Work Plan (TWRWP) Status</u> - ORP stated that there is no waste retrieval work planned for C Farm in the queue at this time. ORP noted that work is starting on the

AX-103 and the AX-104 TWRWPs, but a status won't be provided until the efforts of drafting the TWRWPs are further along in the process.

Tank in Appendix H. Status (tank 241-C-106) - There was no change in status to report.

<u>Tank Retrievals with Individual Milestones (tanks 241-A-103 and 241-S-112)</u> – There was no change in status.

<u>CD-SST Retrieval and Closure</u> - ORP stated that it has previously been reported that tanks C-102 and C-105 are at serious risk to meeting milestone D-00B-01. ORP noted that a notification letter went out this week that C-111 is at serious risk to meeting D-00B-01.

Significant Past Accomplishments – ORP provided the status of the retrieval completion certifications. The C-101 retrieval completion certification, No. 14-TF-0113, was hand-delivered to Ecology yesterday (9/24/14). Tank C-107 was retrieved using three retrieval technologies, and the retrieval completion certification is in approval and will be transmitted to Ecology next week. ORP stated that there have been frequent discussions during the last month regarding C-112, and approval for the request to forego the third retrieval technology at C-112 was anticipated to be received from Ecology today. Ecology responded that senior management had been out of the office until today. ORP noted that the C-112 retrieval completion certification is due to Ecology by next Tuesday (9/30/14), and that a draft retrieval completion certification was shared with Ecology earlier this week. Ecology stated that a draft response was sent to ORP last night.

ORP reported that the enhanced reach sluicer (ERSS) was pulled out of tank C-102, and the long reach ERSS is being installed in C-102 in riser 2. Retrieval in C-102 is planned to start in mid-October 2014. ORP noted that there have been some discussions with Ecology outside of this meeting regarding C-105. ORP stated that retrieval operations in C-105 have been done with only supernatants going through the vacuum retrieval system, and high pressure water needs to be brought in. ORP noted that it is leading a system engineering evaluation with WRPS to assess what can be done with C-105. ORP expressed appreciation to Ecology for providing early input this week on C-105. ORP stated that the slurry distributor at the receiver tank for C-105 (AN-106) needs to be replaced, and it should be in place by the end of this month. ORP reported that the hose-in-hoses are being replaced between portable valve box 209 and portable valve box 104.

ORP stated that it is in the process of removing the two ERSSs in C-111, and one of the spare ERSSs will be taken to the manufacturer and another long reach sluicer will be built. ORP noted that it is likely the sluicers will be put in with nitrile hoses as the hydraulic hoses, rather than Teflon or Tefzel, which was used in the past. ORP stated that the nitrile hoses are larger in diameter, but they are resistant to electrostatic discharge and are very resistant to radiation, which has been a problem with Teflon and Tefzel. The switch to nitrile will be a design modification, and the hose management system will also have to be changed. ORP stated that retrieval in C-111 is planned to start up in March 2015.

Ecology asked about the definition of serious risk to meeting a milestone. ORP responded that the question needs to be addressed to legal staff. Ecology stated that if waste is not being pumped

out of a tank, and the milestone due date is in two weeks, serious risk implies there might be a possibility of meeting the milestone. ORP stated that Ecology's inquiry regarding serious risk will be passed on to the legal staff and TPA project management staff. Ecology stated that a request was made to ORP staff to discuss topics associated with the Defense Nuclear Facilities Safety Board (DNFSB), and a meeting will be scheduled next week. Ecology noted that there has been no mention of the PA for A/AX Farm, and it believes that it is important to complete the A/AX PA before ORP starts retrieving the tanks. ORP agreed with Ecology, and stated that an introduction session on AN, AX and the Integrated Disposal Facility (IDF) is planned for November 2014. ORP added that in calendar year 2015, there will be four scoping sessions on IDF, and the plan is to incorporate AN and AX during that same time frame.

<u>CD TWRWP Status</u> – ORP noted that the CD TWRWP table is the same table that is in the TPA monthly summary.

#### **Waste Treatment Plant**

The WTP actions were updated as follows:

Action No. 1 (WTP-14-06-01) – ORP will ensure that the schedule for the full-scale vessel testing is transmitted to Ecology by next week. This action remains open.

Action No. 2 (WTP-14-06-02) – ORP will coordinate with Ecology about the time for setting up a briefing. This action remains open.

Action No. 3 (WTP-14-06-03) – ORP stated that a briefing will be scheduled following receipt of the LAW design operability review, and the briefing is currently scheduled for December 15, 2014.

Action No. 4 (WTP-14-04-01) - ORP will coordinate with Ecology about the time for setting up a briefing. This action remains open.

ORP reported that the current full-time equivalents (FTEs) of 2,634 is an increase of about 600 FTEs from last year, and about a 300 FTE increase in the last two months. ORP indicated that about 300 more FTEs will be hired, and most of the additional FTEs are engineers who will be working on Pretreatment (PT) technical issue resolution. ORP noted that it has been a struggle within WTP and tank farms to get new engineers on board, due to attrition and Bechtel's schedule of working on one project for about five years and then moving to another project. ORP stated that the FY15 budget is on a continuing resolution (CR), and as the CR gets defined, the intent is to continue an aggressive hiring stance through the first half of FY15, and it will primarily be focused on engineering staff. ORP noted that the craft in the field remains fairly stable. ORP stated that for the overall project, there will be a significant carryover, in the range of 250 to \$300 million, into FY15.

ORP stated that the two-year work plan for High-Level Waste (HLW) and PT has been updated for FY15 and FY16, and it will define the near-term scope of work. ORP noted that included in the scope will be near-term technical resolution actions for PT. ORP also noted that efforts continue

with the contract proposal and baseline alignments for Low Activity Waste, Balance of Facilities, and LAB (LBL).

<u>Significant Past Accomplishments</u> - ORP noted that it authorized resumption of all engineering work necessary to move forward with the HLW design, although there are holds on most of the procurement and construction activities.

# Pretreatment (PT) Facility

ORP stated that the key work in PT is focused on technical issue resolution and also the two-year work plan for FY15 and FY16 activities. ORP reported that Bechtel submitted resolution plans for eight technical issues (T1-T8), which have gone through the comment resolution process, and Bechtel will be submitting the final version of the resolution plans by the end of September 2014. ORP noted that three of the technical issues are still in comment resolution, and they may be delayed a week or two from the final version. ORP stated that the three technical issues are T4 mixing, T6 PTF optimization, and T8 ventilation. ORP noted that Bechtel submitted the two-year work plan for FY15 and FY16, and ORP is in the process of accepting the two-year work plan.

Ecology referred to the DNFSB report that was issued to Congress last week that summarized all the unresolved technical issues, and asked for an update on the technical issues. Ecology cited the hydrogen piping in ancillary vessels (HPAV) issue. ORP responded that HPAV is one of the eight technical issue plans that were just referred to. Ecology asked about the status of the overall risk assessment. ORP stated that the probability risk assessment (PRA) is embedded in the HPAV, and the spray leak methodology is part of the ventilation overall plan. ORP noted that the path forward for the spray leak methodology testing has been provided to the DNFSB, and how it will be incorporated into the ventilation design is part of the T8 path forward. Ecology stated that the DNFSB report talked about a heat transfer analysis for the process vessel. ORP responded that that is an open issue that was identified in a letter from the DNFSB about a year-and-a-half ago that is a part of the design process. ORP prepared a response, but it wasn't addressed since no engineering is being done in PT. ORP explained that the issue is associated with thermal calculations of the temperatures in the vessels, and the calculations will be done as part of the design.

Ecology asked about the ammonia systems controls. ORP stated that the ammonia system controls would be covered under BOF. Ecology asked if the ammonia hazard analysis would be issued. ORP responded that this topic was not a new issue, and that a response was provided to the DNFSB about a year-and-a-half ago. ORP noted that a new letter was received from the DNFSB yesterday (9/24/14) requesting an update to the analysis, and an update will be sent. ORP added that since PT is not moving forward on design, the updated hazard analyses are not moving forward on the schedule that was originally planned. ORP stated that the hazard analysis will be done when that point is reached in PT. ORP noted that copies of the T1 through T8 plans will be provided to Ecology after they are finalized and approved by DOE.

Ecology asked about the status of the erosion testing. ORP stated that the erosion testing is part of the jet impingement testing that is under way, and it should be completed sometime early next year. ORP added that there is still planning and scoping for the other erosion tests, and the T5

erosion technical issue plan would cover the integration of all the erosion testing. Ecology asked about the planning beds and the process piping. ORP responded that those are also associated with the T5 erosion technical issue plan.

Significant Past Accomplishments – ORP reported that phase 1 of the pulse-jet mixing (PJM) controls testing with the RLD-8 vessel is under way at the Full-Scale test facility. Phase 1 involves the PJM controls testing with the low solids, and is scheduled to be completed in November 2014. Phase 2 will be the PJM controls testing with the high solids, and it will continue until August 2015. ORP stated that design efforts continue for the standard high-solids vessel, which is the 16-foot vessel, and Bechtel is working at the eight-foot test facility to test some of the features of the 16-foot vessel. ORP reported that Bechtel has had six PJMs fabricated for the standard high-solids vessel, and there are testing plans to move the PJM inside the vessel. ORP added that the testing will be used to narrow down the options for the actual prototypic section for the vessel. Ecology asked how many PJMs will be in the eight-foot vessel. ORP responded that there will be 60 PJMs, and that will be one of the key options to go into the 16-foot vessel.

Ecology asked if ORP is still planning to use the standardized vessel. ORP responded that the standardized vessel is in conceptual design, and no vessels have been fabricated. ORP stated that agreement on the standard vessel will be based on the eight-foot testing, and the features will then be incorporated into the 16-foot test. ORP added that when the eight-foot vessel testing is completed, the vessel will be removed and the 16-foot vessel will be placed in the testing facility. The schedule for the 16-foot full-scale mixing test is scheduled for the end of 2015 or early 2016. Ecology asked how long it would take to fabricate the standard vessel. ORP responded that it would take between four to six months, and Bechtel is making an effort to determine whether advanced procurements could be done since the diameter and size of the vessel has been established in the conceptual design.

ORP reported that plywood had been placed in PT to protect certain equipment, and there are a number of places that have mold on the plywood due to water leaks. Bechtel has brought in a contractor who has expertise in mold work to evaluate the scope of work needed, and then a contract will be awarded. ORP stated that many of the buildings are closed out, due to a worker safety perspective, until the mold hazards are mitigated. ORP noted that a similar situation has occurred in HLW.

Significant Planned Actions in the Next 6 Months – ORP stated that Bechtel submitted an informal Safety Design Strategy (SDS) development plan, which has gone through the review process, and Bechtel is planning to submit the final SDS for approval by the end of September 2014. ORP stated that an aspect of the updated SDS is to define the scope for all plans in PT and develop a rough schedule for resuming engineering activities in PT.

# **High Level Waste**

ORP stated that BNI was given authorization to resume full production engineering after completing a significant amount of work. ORP noted that it approved Bechtel's corrective action plan for all of the Level 1 findings, the SDS, and the system engineering management plan. ORP

stated that Bechtel updated their engineering processes and instituted the Process Gates desk instruction, which back-checks that all of the comment flow-downs have been met when moving from one design level to another level. ORP noted that the Process Gates will also be applied to procurements. ORP stated that it approved a quality engineering check for engineering calculations that Bechtel instituted. ORP noted that Bechtel had an engineering check, but there were calculation deficiencies identified. ORP stated that the design and operability review identified a number of major issues with the ventilation system and the solid waste handling, and the plan was accepted that Bechtel submitted to address the issues. ORP stated that the two-year plan has incorporated many of the design activities that resulted from Bechtel's efforts towards resumption of production engineering.

Ecology noted that Bechtel had evaluated many of the systems during the high-level design review and identified many of the issues, and asked which issues were not known to Bechtel. ORP responded that an action had been established to provide Ecology briefing on the resumption of full production engineering, and Ecology's question would be addressed in the briefing. Ecology asked if ORP could indicate what units are being looked at. ORP responded that a couple of the general issues are the HEPA filter loading capability and the air flow associated with opening and closing doors. Ecology noted that there were enough significant issues with the ventilation system to put the HOP system on hold. ORP stated that the ventilation system, including the HOP system, was put on hold because they all go to the C5 at the end. ORP added that a lot of the ventilation systems were more tied to access, maintenance, opening doors, and maintaining the DP with the C5 and C3. ORP took an action to provide an update to Ecology on whether there were any specific issues identified for the HOP and how they are being addressed. Ecology inquired about issues with the carbon bed. ORP indicated that there weren't any issues with the carbon bed.

Ecology stated that other systems in HLW warranted a review as a result of the high-level design review, and asked if those systems will be looked at. ORP responded that Bechtel plans to review its systems. Ecology asked if the review will not be an ORP-driven review. ORP stated that it is still working on a decision on how to proceed with the review. ORP added that Bechtel has been informed that it needs to use the broad multidiscipline team, and that Bechtel has plans for reviewing all the systems.

ORP reported that the HEPA filter testing at Mississippi State University (MSU) is in phase 1, attrition 1, and there are two vendors (Porvair and Kurion) providing multiple media for the filters. ORP stated that the phase 1 testing will continue into early next year, and then the decision will be made on which filter media would be appropriate for which application. ORP noted that MSU just recently passed its QA program review, which indicates that when Bechtel evaluates the program in October 2014, MSU should be able to pass and not delay the work.

# Low Activity Waste Facility (LAW)

ORP stated that Bechtel is preparing a contract proposal for the LBL scope of work through the end of hot commissioning, and the proposal is due at the end of September 2014. ORP reported that the One System team met with Ecology to discuss the two modifications for the LAW facility and the effluent facility that are associated with direct feed LAW (DFLAW). ORP directed

Bechtel to start the detailed design for the two modifications, with a not to exceed dollar limitation until negotiations are complete.

ORP stated that a meeting is scheduled with Bechtel next Monday (9/29/14) to discuss the thermal catalytic oxidizer (TCO). ORP indicated that Bechtel's schedule for the TCO has moved to the right, and Bechtel has been requested to explain that movement. Ecology asked if the design operability review report will be available on December 15, 2014. ORP responded that that is the date when the report should be available to share with Ecology. It was noted that the design operability review is still ongoing, and it will take two to three weeks to finalize the report.

<u>Significant Past Accomplishments</u> – ORP noted that the motor alignment on the exhausters was completed, and that allowed work to continue with the offgas piping connections on the 48-foot level. ORP stated that good progress is being made on the 48-foot level where the exhausters and the HEPA housings are located, and three of the five HEPA housings have been set.

Significant Planned Actions in the Next 6 Months – ORP stated that the melter refractory installation is scheduled for completion by the end of December 2014. Ecology inquired about the original estimate for completing the melter refractory installation versus the actual time that it's taken of two years. ORP responded that the melter refractory installation is on schedule, and it's a difficult and long process. ORP clarified that completing the installation does not include the melter lids. Ecology noted the melter refractory installation was for two melters, and asked if it would take two years to assemble future melters. ORP stated that there will be a lessons learned put together to improve the process and the time frame.

Ecology asked if there are a certain amount of standby melters. ORP stated that there was a third melter added into the contract when the refractory was purchased. ORP added that the melter shell and the refractory are both within Bechtel's contract, but the assembly of the melter was taken out of Bechtel's contract years ago. ORP noted that the issue has been discussed several times, and stated that it falls under the purview of the One System integration team. Ecology asked whether the issue of melter replacement has been addressed. ORP responded that it is being addressed from the One System approach. Ecology stated that the life of the melter is limited to five years, which is not very far after operations start up, and that the issue has been raised several times and a concrete answer has not been provided.

ORP responded that it will ensure that a melter can be replaced, and that it makes operational space much more convenient without installing a standby melter. ORP added that it is evaluating within its own project regarding when and how to install additional melters and what the options are associated with the installation. ORP acknowledged that there will be a lot of operational needs for the LAW facility that will probably have to be addressed through operations to procure additional melters and to change out the melters. Ecology asked if ORP is considering that in its future planning. ORP responded that it is actively considering all of those issues and variables within the design review processes.

Ecology inquired about the replacement process if a melter fails, which was a concern that was identified during the HLW review. ORP stated that the operational contract will start when initial hot commissioning has been completed under Bechtel's contract, and the operational scope will

cover operations and spares beyond that point. Oregon Department of Energy (ODOE) asked if the plan is to store the third melter on site. ORP responded that the third melter will be in place to install if one of the two operating melters fail, and the change-out period would be a significant period of time. ORP noted that one design confirmation that is being done is to ensure that one of the two operating melters could be kept operational while the other melter is being replaced.

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

ORP stated that BOF is at 63 percent complete overall, and pointed out that a lot of the costs for the project are associated with the commissioning phase. Ecology inquired about the emergency turbine generator (ETG). ORP responded that the ETG is in the procurement process, and the ETG will support emergency loads. ORP noted that the ETG is not needed for backup power supply for the LAW facility, but will provide backup power for PT and HLW. ORP stated that the ETG procurement process has been ongoing for about two years, and a lot of recent effort has been placed on revising commercial grade dedication (CGD) strategies to ensure procurement and use of the ETG to NQA-1 standards. ORP explained that there are no manufacturers who meet NQA-1 standards for turbine or diesel generators, and the CGD effort is to establish NQA-1 standards with the manufacturer before fabricating the ETG. ORP noted that there are a large number of safety processes of significant components in PT and HLW, and a robust CGD program is needed to deal with the number of components. ORP added that the intent is to build a CDG program, through the procurement of the ETG, that will be robust enough to handle procurements that will be much less complicated but larger volume items in PT.

ODOE asked who will be doing the CGD. ORP responded that it will be Bechtel, and a third-party dedicator will not be used, in most instances, for CDG in the Waste Treatment Project. ORP stated that the ETG will be a Rolls Royce turbine, and the Rolls Royce assembler is OTI. ORP noted that an expert has been retained who trains different EM sites nationwide on how CDG needs to be performed. Ecology asked if the diesel generators support the LAW facility. ORP responded that the standby diesel generator (SDG) will support the LAW facility and all of the BOF facilities for emergency power or backup power. ORP stated that the ETG supplies power to the safety class, safety significant components, which are in PT and HLW, and the ETG is not required for operation of the LAW facility. ORP noted that the SDG may provide backup for some auxiliary loads for PT and HLW.

ODOE asked about the NQA-1 process. ORP responded that the NQA-1 process provides very thorough documentation to ensure the quality of the procedures and processes used to produce each component.

Significant past Accomplishments - ORP stated that the recoating on the interior of some of the fire service water tanks has been completed, and the tanks are in the process of being refilled. ORP reported that the installation of the test stations for the cathodic protection system was originally scheduled to be completed by December 2014, and the test stations are now installed and have been energized. There will be a 30-day waiting period while the test stations get polarized and some calibrations are done, and then data will be obtained from the test stations. ORP stated that the data will provide information about meeting the revised criteria by the National Association of Corrosion Engineers (NACE), and will provide an indication of the next

steps in a multiphase approach to the cathodic protection system. ORP stated that the first step in the plan is to evaluate the readings, and then install vertical anodes at localized spots that are not in compliance to address the issue. ORP noted that there may be a more invasive second step, depending on the data.

# Analytical Laboratory (LAB)

ORP noted that the bulk of construction on the LAB facility is done, with a few areas that are being worked on that consist mainly of electrical terminations. ORP stated that currently the LAB is transitioning to a maintenance and shutdown mode facility until it is needed. ORP added that there will be some activity on individual support systems by the startup organization, such as system scoping and basic component testing for the systems.

Significant Past Accomplishments – ORP stated that recertification was completed on RLD vessels 163, 164 and 165. ORP noted that the repairs to RLD-163 and RLD-165 were fairly minor, and no re-performance of the hydrostatic testing was required. RLD-164 required extensive repairs and were hydrostatically tested and recertified. Ecology asked if all the piping has been connected. ORP responded that there were about 25 piping connections that needed to be made, and 17 have been completed. The final pipe connections are scheduled to be completed and certified in early December 2014. Ecology asked when LAB will be turned over. ORP explained that the process for turnover is not done by facility, but individual systems will be turned over between the construction organization and the startup organization. The startup organization will do the component testing, and it will then integrate into the commissioning organization. The commissioning organization will start doing the larger tests and the integrated system tests. ORP noted that Bechtel's contract will go through the startup and commissioning and end after the hot commissioning phase.

# 4.0 Key Documents List

ORP stated that the key documents list was distributed during a meeting held last week, and copies are not being provided today since there have been no changes.

# **Upcoming Meetings**

The October 2014 ORP TPA project managers monthly meeting is scheduled for Thursday, October 16, 2014, from 9:00 a.m. to 11:30 a.m. in ORP room 1600.

	ORD SMM	7 9	-25-14
4	Steven Cimon	ODDE	(SAL)903-0853
	Bryan Trinberger	ORP	(509) 376-2674
	Watter Johnson	MSA	529 948 8679
	Chr.3 Keyp	DOE-ORP	509-373-0649
	GRORIA COMMINS	FREESTONE	909-430-8718
	Julie Robertson	Freesdone	509 392 3523
		ORP	309376434
	Jeremy Johnson	ORP	376 (866
	Susan Kberlein	WRPS	372-1689
	Mihe Barnes	Ecology	372-7924
	DaBrista Smills	DRP	3764306
	Jani Grandstate	ar P	376-6202
	Lon Huffman	ORP	3160104
	Jeff Lyon Janet Diediker	Ecology	539-1996
	Janet Diediker	ORP 0/	372-3043
	Chris Harrington	ORP	376-1239
	Chris Harrington Delmar Noyos	DRO	776-5166
	Jason Young	ORP	376-0375
	Track Gas	ECY	372-7901
	Arlene Tortoso	Ecy	372-7906
-	Nitya Chandran	ECY	872-7931
	IS AB EVE WHELER	ORP	376-1560
	Robble Biyani	ECY	3.72-7884
	Wahed Abdul	orp	438-0455
	Jeff Breagena	ORG	438-0444

b

# September 25, 2014 ORP Project Managers' Monthly Meeting 2440 Stevens Center Richland, Washington Room 1600, 9:00AM-11:30AM

# **AGENDA**

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

Item Description	TPA/CD Topic Milestone Tie	TPA Admin Record – EDMC File Number
August 2014 TPA Monthly Summary Report	All	1226734
August 2014 CD Monthly Summary Report	All	1226735
Meeting Notes: Annual Meeting Between the ORP and Ecology to Discuss Interim Measures Completed in FY2014 and Planned for FY2015, dated 07/22/2014	M-045-56	1226817
DST Pumping Guide Meeting Minutes, WRPS-1403628, dated 08/13/2014	DSTs	1226937
DST Pumping Guide Meeting Minutes, WRPS-1403902, dated 08/27/2014	DSTs	1226938

- 2.0 Agreements, Issues, Action Items
- 3.0 Review of the ORP Project Summary
- 4.0 Key Documents List

# **Upcoming Meetings**

 The October 2014 ORP TPA Project Managers' Monthly Meeting is scheduled for Thursday, October 16, 2014 from 9:00-11:30AM in ORP Room 1600.

# ORP/Ecology TPA and CD Agreements, Issues, and Action Items - September 2014

# Agreements:

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

#### **Issues:**

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

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

			Tank Farms Action I	ems			
#	Action ID	Start Date	Action	Action Status	Updates / Needs for Closure	Actionee(s)	Date Closed
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.	Open.		Koll	
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.	Open.		Pfaff / Wrzesinski	
3	TF-14-07-02	07/17/14	ORP will provide a briefing to ECY on the design, history, testing process, and path forward for the deferred use lines.	Open.		Johnson	
4	TF-14-06-02	06/19/14	Schedule an oversight opportunity with ORP and ECY for the WMA C PA modeling	Open.	Meeting held on 09/11/14. Next meeting tentatively scheduled for 10/30/14.	Kemp / Beach	
5	TF-14-02-02	02/18/14	ECY would like a schedule/project management plan (if available) for the closure of WMA C.	Open.		Kemp	
6	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. After Rev. 7 is approved a TPA Chg Pckg will be submitted to make RPP-12711 a primary document.	Open.	Meeting with ORP, ECY, and WRPS was held on 09/15/14. Meeting notes are being prepared.	Lynch / Mathey / Fox	
7	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.	Open.		Lyon / McDonald	
8	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. ORP proposes a six month extension to M-045-61 to continue PM discussions.	Open.	ECY proposal presented to ORP on 03/26/14. ECY will update its table in the proposal.	Kemp / Eberlein / Price	

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

	WTP Action Items											
#	Action ID	Start Date	Action	Action Status	Updates / Needs for Closure	Actionee(s)	Date Closed					
1	WTP-14-06-01	06/19/14	ECY would like a schedule for the full-scale vessel testing	Open.		Wahed Abdul						
2	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).	Open.		Delmar Noyes						
3	WTP-14-06-03	06/19/14	ECY requests a briefing on the LAW design operability review before the September timeframe.	Open.		Jeff Bruggeman						
4	WTP-14-04-01	04/22/14	ORP and ECY have a placeholder action to hold a comprehensive briefing/discussion on the PT efforts.	Open.		Delmar Noyes						

# **FINAL**

# Office of River Protection

Tri-Party Agreement
Monthly Summary Report
September 2014



# Office of River Protection Tri-Party Agreement Milestone Review

# September 2014 (Monthly Summary Report/Project Earned Value Management System reflects July 2014 information)

Page	Topic	Leads
1	Administrative Items/Milestone Status	James Lynch/Dan McDonald/Jeff Lyon
2	System Plan; M-062-40	DaBrisha Smith/Jeff Lyon/Dan McDonald
3	Acquisition of New Facilities; M-090-00 and M-047-00	Janet Diediker/Jeff Lyon/Dan McDonald
4	Supplemental Treatment and Part B Permit Applications; M-062-00, M-062-21, M-062-30, and M-062-45	Steve Pfaff/Jeff Lyon/Dan McDonald
5	242-A Evaporator Status	Ron Koll/Jeff Lyon
6	Double-Shell Tank System Update	Jeremy Johnson/Jeff Lyon
6	Single-Shell Tank Integrity Assurance; M-045-91	Jeremy Johnson/ Jim Alzheimer
7	In Tank Characterization and Summary	Billie Mauss/Michael Barnes
8	Tank Operations Contract Overview	ORP TPA PMs/Jeff Lyon
15	Single-Shell Tank Corrective Action; M-045-22, M-045-50 series, M-045-60 series, and M-045-92	Chris Kemp/Jeff Lyon
16	Single-Shell Retrieval and Closure Program Tri-Party Agreement (TPA) Milestones Status; M-045-00 series	Chris Kemp/Jeff Lyon
18	Tank Waste Retrieval Work Plan Status	Chris Kemp/Jeff Lyon
19	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
	Fiscal Year 2014			
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		On Schedule
	Fiscal Year 2015			
M-062-40D	Submit System Plan	10/31/2014		On Schedule
M-062-40ZZ	Submit One Time Tank Waste Supp Treatment Technologies Report	10/31/2014	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		On Schedule
M-045-61	Phase 2 RCRA Facility Investigation/Corrective Measures Study	12/31/2014		To Be Missed
M-045-86H	Submit Retrieval Data Report to Ecology for C-110	01/29/2015	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.

Resource Conservation and Recovery Act. **RCRA** 

SST single-shell tank. Tri-Party Agreement. TPA

WMA-C = Waste Management Area C.

# System Plan

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

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

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

# **Significant Past Accomplishments:**

- On October 24, 2013, Washington State Department of Ecology (Ecology) and U.S. Department of Energy (DOE), Office of River Protection (ORP) signed the Tri-Party Agreement (TPA) Change Control Form M-62-13-02, moving out the due date for this embedded milestone from October 31, 2013 to December 15, 2013, for selection of three, or more, scenarios to be modeled in the System Plan.
- 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.

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

• Issue System Plan Rev. 7

#### 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
FY 2010	10-02	AW-106	AW-106	in late August and completing in early October 2010.  Campaign 10-02 was an acceleration of previously planned  Campaign 11-01.
FY 2011	NA	NA	NA	No campaign conducted in FY 2011 due to ongoing 242-A and tank farm facility life extension and <i>American Recovery and Reinvestment Act</i> funded upgrades.
FY 2012	NA	NA	NA	No campaign conducted in FY 2012 due to ongoing 242-A and tank farm facility upgrades and revision to the 242-A Documented Safety Analysis.
FY 2013	NA	NA	NA	No campaigns to be conducted in FY 2013 due to ongoing 242-A and tank farm facility upgrades and revision to the 242-A Documented Safety Analysis.
FY 2014	13-01	AP-107	AP-107	Estimated start late August to early September 2014. Requires two passes to achieve waste volume reduction.
FY 2014	14-01	AW-106	AP-107	Estimated start November 2014.
FY 2015	14-02	AZ-102	AP-103	Estimated start February 2015.
FY 2015	14-03	AW-106	AP-103	Estimated start March 2015.
FY 2015	15-01	AZ-102	AP-103	Estimated start June 2015.

FY = fiscal year. NA = not applicable.

On August 29, 2014, the DOE ORP authorized startup of the 242-A Evaporator for waste processing.

# **Double-Shell Tank System Update**

# Ultrasonic Testing

- The final UT report for AP-106 is in approval in Smartplant
- Phased Array (PAUT)-Electro Magnet Acoustic Transducer (EMAT) equipment has been received and in undergoing functional testing. Integrated performance demonstration testing is planned in September 2014 at PNNL.

# Visual Inspection

- Continuing weekly inspections of AY-102 Risers 77, 83, and 87.
- Continuing monthly comprehensive inspection of AY-102 annulus.
- Completed all scheduled the FY14 comprehensive annulus inspections of tanks and an additional inspection of AY-101 is in progress. The inspection reports for AN-102, AN-107, and AW-105 have been issued. The inspection reports for AP-101, AP-104, AP-106, and AP-107 are being finalized.

# 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: On schedule.

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

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

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

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

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

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

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

# Significant Past Accomplishments:

- In support of the M-045-91F-T04 target, Ecology was briefed on RPP-RPT- 54921, Estimation of Past Leak Rates for Selected Hanford Single-Shell Tanks and RPP-RPT-54909, Hanford Single-Shell Tanks Leak Causes, Locations, and Rates: Summary Report.
- RPP-RPT-54921 was issued and RPP-RPT-54909 is being finalized for external clearance review.
- The SSTIP Expert Panel meeting was held August 28 and 29 in Richland. The Panel was
  briefed on the status of all the SSTIP work of the past several years. The panel indicated that
  they are supportive of efforts to mitigate intrusion. A letter is expected by the end of
  September.

# Significant Planned Actions in the Next 6 Months:

- Issue report on testing of the Tank A-106 sidewall.
- Issue the Type I Analysis of Record.
- Issue leak cause and location summary report

#### Issues:

None.

# In Tank Characterization and Summary

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

# Accomplishments:

- RPP-RPT-58178, Final Report for Tank 241-AY-101A Leak-Detection Pit Liquid Grab Samples, June 2014, Rev 0, was released August 26, 2014.
- RPP-RPT-58027, Final Analytical Report for Tank 241-B-204 Archive Samples, Rev 0, was released August 26, 2014.
- RPP-RPT-58064, Final Report for Tank 241-AY-102A Leak-Detection Pit Liquid Grab Samples, July 2014, Rev 0, was released August 26, 2014.
- RPP-RPT-58177, Final Report for Tank 241-AP-106 Grab Samples in Support of Waste Compatibility in Fiscal Year 2014, Rev 0, was released August 27, 2014.
- Completed 241-AY-102A Leak-Detection Pit liquid grab sampling on August 4, 2014.
   Three samples were received at the lab.

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

#### Tank sampling:

• 241-AY-102A LDP grab sample (#12) is scheduled for September 2014.

- Tank 241-AZ-102 grab sampling (Evaporator campaign 14-02) scheduled for September 2014.
- Tank 241-AZ-102 grab sampling (Evaporator campaign 14-02) scheduled for August 2014.
- Tank 241-AN-101 at C-102 50%/C-111 100% retrieval is planned for September 2014.
- Tank 241-SY-102, 1st core sample (Riser #20) is scheduled for September 2014.
- Tank 241-SY-102, 2<sup>nd</sup> core sample (Riser #04) is scheduled for October 2014.
- Tank 241-C-107 closure drag sample is planned for October 2014.
- Tank 241-AN-106 sample at C-105 100% retrieval is planned for October/November 2014.
- Tank 241-C-112 closure clamshell or fingertrap sampling is planned for November 2014.
- Tank 241-AW-106 (Evaporator campaign 14-03) sampling is planned for November 2014.
- Tank 241-C-101 ORSS closure sampling is planned for November 2014.
- Tank 241-AZ-102 (Evaporator campaign 15-01) sampling is planned for January 2015.
- Annual sampling of 241-AZ-301 condensate is currently planned for September 2014.

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

The following tanks have been identified for BBI updates in FY 2014 Quarter 4.

- 241-AN-101
- 241-AN-106
- 241-AP-104
- 241-AY-102

- 241-BX-101
- 241-BX-110
- 241-BY-102
- 241-C-102

- 241-C-105
- 241-S-111
- 241-T-101
- 241-TY-102

# Data Quality Objectives (DQO):

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

#### Issues:

None.

#### TANK OPERATIONS CONTRACT OVERVIEW

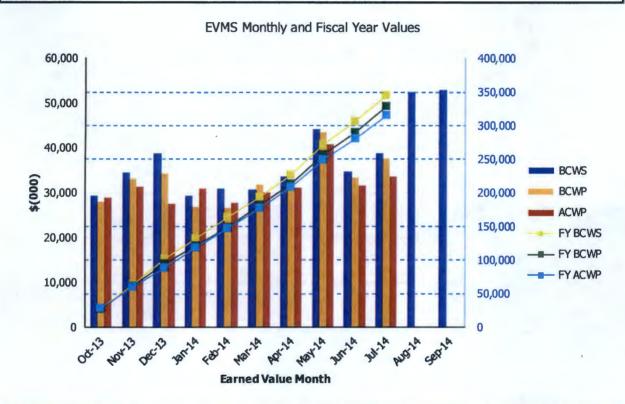
#### **Project Performance**

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 July 31, 2014, Washington River Protection Solutions LLC, the Tank Operations Contractor, has worked 135 days without a lost time workday injury and 13 days since the last recordable case. There was one recordable case in the month of July.

	July-14														
	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC	EAC	VAC					
СМ	38,860.1	37,623.0	33,686.4	(1,237.1)	3,936.6	0.97	1.12								
FYTD	345,057.9	327,737.1	314,166.2	(17,320.8)	13,570.9	0.95	1.04	450,330.6	417,929.4	32,401.2					
CTD	2,236,801.8	2,219,480.9	2,205,910.0	(17,320.9)	13,570.9	0.99	1.01	3,240,621.9	3,221,409.4	19,212.5					



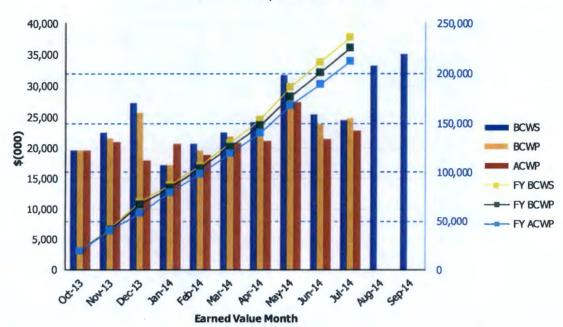


Earned Value   Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FYACWP	FY SPI	FY CPI
Oct 2013	\$29,474	\$27,946	\$29,015	0.95	0.96	\$29,474	\$27,946	\$29,015	0.95	0.96
Nov 2013	\$34,535	\$33,081	\$31,448	0.96	1.05	\$64,009	\$61,027	\$60,463	0.95	1.01
Dec 2013	\$38,698	\$34,362	\$27,634	0.89	1.24	\$102,706	\$95,389	\$88,096	0.93	1.08
Jan 2014	\$29,325	\$26,999	\$30,991	0.92	0.87	\$132,032	\$122,388	\$119,087	0.93	1.03
Feb 2014	\$30,875	\$26,774	\$27,782	0.87	0.96	\$162,907	\$149,162	\$146,869	0.92	1.02
Mar 2014	\$30,709	\$31,870	\$30,045	1.04	1.06	\$193,616	\$181,032	\$176,914	0.94	1.02
Apr 2014	\$33,608	\$32,120	\$31,172	0.96	1.03	\$227,224	\$213,152	\$208,086	0.94	1.02
May 2014	\$44,269	\$43,538	\$40,799	0.98	1.07	\$271,492	\$256,690	\$248,885	0.95	1.03
Jun 2014	\$34,706	\$33,424	\$31,595	0.96	1.06	\$306,198	\$290,114	\$280,480	0.95	1.03
Jul 2014	\$38,860	\$37,623	\$33,686	0.97	1.12	\$345,058	\$327,737	\$314,166	0.95	1.04
Aug 2014	\$52,413									
Sep 2014	\$52,860									

CTD \$2,236,802 \$2,219,481 \$2,205,910 0.99 1.01

# Tank Farms ORP-0014 Base Operations 5.01



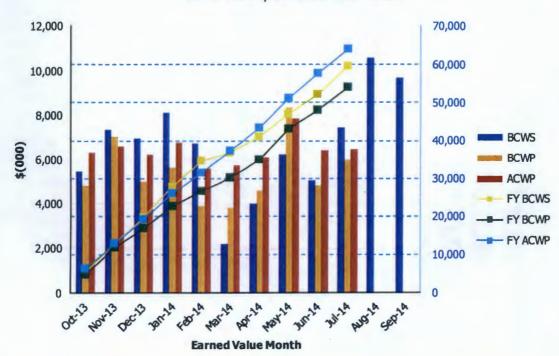


Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	PY SPI	FY CPI
Oct 2013	\$19,628	\$19,630	\$19,598	1.00	1.00	\$19,628	\$19,630	\$19,598	1.00	1.00
Nov 2013	\$22,525	\$21,675	\$21,051	0.96	1.03	\$42,153	\$41,305	\$40,649	0.98	1.02
Dec 2013	\$27,266	\$25,724	\$18,016	0.94	1.43	\$69,419	\$67,029	\$58,664	0.97	1.14
Jan 2014	\$17,246	\$17,269	\$20,778	1.00	0.83	\$86,664	\$84,298	\$79,443	0.97	1.06
Feb 2014	\$20,732	\$19,631	\$18,894	0.95	1.04	\$107,396	\$103,929	\$98,337	0.97	1.06
Mar 2014	\$22,587	\$21,924	\$20,834	0.97	1.05	\$129,983	\$125,853	\$119,170	0.97	1.06
Apr 2014	\$24,256	\$22,528	\$21,164	0.93	1.06	\$154,238	\$148,381	\$140,334	0.96	1.06
May 2014	\$31,690	\$28,630	\$27,412	0.90	1.04	\$185,929	\$177,011	\$167,777	0.95	1.06
Jun 2014	\$25,451	\$23,901	\$21,476	0.94	1.11	\$211,380	\$200,912	\$189,252	0.95	1.06
Jul 2014	\$24,492	\$24,914	\$22,791	1.02	1.09	\$235,872	\$225,826	\$212,043	0.96	1.07
Aug 2014	\$33,302									
Sep 2014	\$34,991									
СТО	\$1,466,938	\$1,456,891	\$1,443,109	0.99	1.01					

Base Operations and Tank Farm Projects

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

**EVMS Monthly and Fiscal Year Values** 

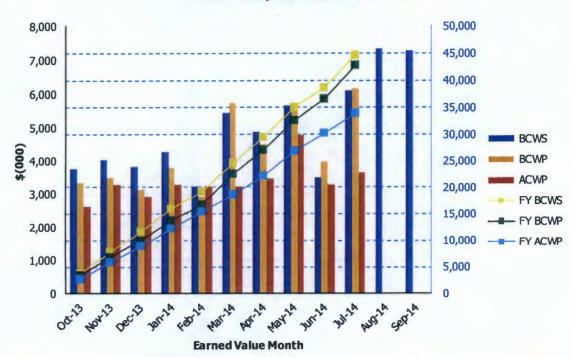


Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2013	\$5,483	\$4,823	\$6,336	0.88	0.76	\$5,483	\$4,823	\$6,336	0.88	0.76
Nov 2013	\$7,366	\$7,054	\$6,609	0.96	1.07	\$12,849	\$11,876	\$12,945	0.92	0.92
Dec 2013	\$6,970	\$5,002	\$6,231	0.72	0.80	\$19,820	\$16,878	\$19,176	0.85	0.88
Jan 2014	\$8,102	\$5,661	\$6,765	0.70	0.84	\$27,922	\$22,539	\$25,941	0.81	0.87
Feb 2014	\$6,726	\$3,914	\$5,602	0.58	0.70	\$34,647	\$26,453	\$31,543	0.76	0.84
Mar 2014	\$2,201	\$3,805	\$5,729	1.73	0.66	\$36,849	\$30,258	\$37,273	0.82	0.81
Apr 2014	\$4,000	\$4,558	\$6,079	1.14	0.75	\$40,848	\$34,816	\$43,352	0.85	0.80
May 2014	\$6,255	\$8,331	\$7,855	1.33	1.06	\$47,103	\$43,146	\$51,207	0.92	0.84
Jun 2014	\$5,055	\$4,826	\$6,413	0.95	0.75	\$52,158	\$47,972	\$57,621	0.92	0.83
Jul 2014	\$7,437	\$5,954	\$6,461	0.80	0.92	\$59,595	\$53,926	\$64,082	0.90	0.84
Aug 2014	\$10,588									
Sep 2014	\$9,711									
CTD	\$486,434	\$480,766	\$490,921	0.99	0.98					

Retrieval and Close Single-Shell Tanks

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



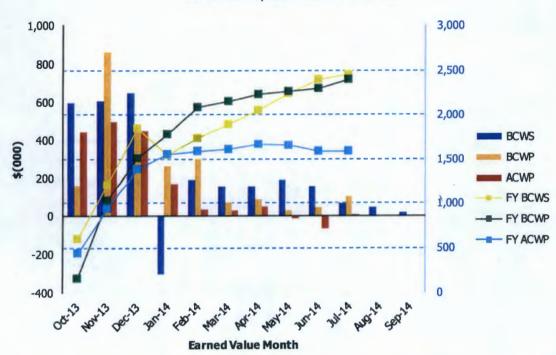


Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2013	\$3,766	\$3,335	\$2,640	0.89	1.26	\$3,766	\$3,335	\$2,640	0.89	1.26
Nov 2013	\$4,041	\$3,488	\$3,295	0.86	1.06	\$7,807	\$6,824	\$5,934	0.87	1.15
Dec 2013	\$3,813	\$3,150	\$2,941	0.83	1.07	\$11,620	\$9,973		0.86	1.12
Jan 2014	\$4,282	\$3,803	\$3,277	0.89	1.16	\$15,902	\$13,776	\$12,152	0.87	1.13
Feb 2014	\$3,225	\$2,926	\$3,239	0.91	0.90	\$19,126	\$16,702	\$15,391	0.87	1.09
Mar 2014	\$5,438	\$5,757	\$3,240	1.06	1.78	\$24,565	\$22,459	\$18,631	0.91	1.21
Apr 2014	\$4,876	\$4,507	\$3,480	0.92	1.30	\$29,441	\$26,966	\$22,112	0.92	1.22
May 2014	\$5,651	\$5,649	\$4,780	1.00	1.18	\$35,092	\$32,626	\$26,892	0.93	1.21
Jun 2014	\$3,497	\$3,991	\$3,300	1.14	1.21	\$38,588	\$36,617	\$30,192	0.95	1.21
Jul 2014	\$6,091	\$6,151	\$3,656	1.01	1.68	\$44,679	\$42,768	\$33,848	0.96	1.26
Aug 2014	\$7,323									
Sep 2014	\$7,264									
CTD	\$260,924	\$259,012	\$250,093	0.99	1.04					

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

# Tank Farms ORP-0014 Supplement Treatment 5.04

**EVMS Monthly and Fiscal Year Values** 

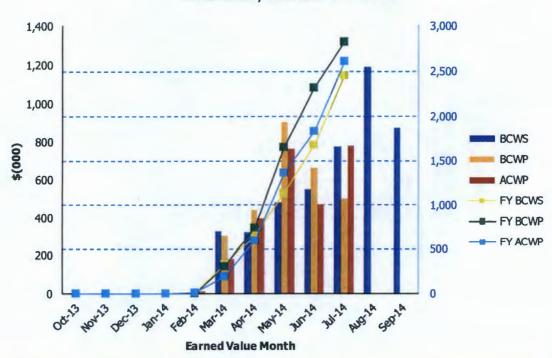


**Earned Value** FY BCWP **FY ACWP** FY SPI FY CPI **BCWS BCWP ACWP** SPI CPI FY BCWS Month \$441 0.26 0.36 \$158 \$441 0.26 0.36 \$597 Oct 2013 \$597 \$158 0.85 1.09 Nov 2013 \$603 \$864 \$494 1.43 1.75 \$1,200 \$1,022 \$934 \$1,380 \$648 \$486 \$446 0.75 1.09 \$1,848 \$1,508 0.82 1.09 Dec 2013 1.14 \$1,775 \$1,551 1.15 \$171 -0.88 1.56 \$1,544 Jan 2014 (\$304)\$266 1.20 1.31 \$302 \$34 1.56 8.91 \$1,737 \$2,077 \$1,585 Feb 2014 \$194 \$29 1.33 0.45 2.36 \$1,890 \$2,145 \$1,614 1.14 Mar 2014 \$153 \$68 1.34 \$51 \$2,230 \$1,665 1.09 Apr 2014 \$153 \$85 0.56 1.67 \$2,043 -\$13 0.14 -1.98 \$2,234 \$2,256 \$1,652 1.01 1.37 May 2014 \$191 \$26 \$2,299 \$1,585 0.96 1.45 -\$67 0.28 -0.64 \$2,390 Jun 2014 \$156 \$43 0.98 1.51 \$2,401 \$1,586 Jul 2014 \$66 \$102 \$1 1.54 92.36 \$2,456 Aug 2014 \$42 Sep 2014 \$18 \$20,049 \$19,994 \$19,180 1.00 1.04

#### Supplemental Treatment

### 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 2013	\$0	\$0	\$0	0.00	0.00	\$0	\$0	\$0	0.00	0.00
Nov 2013	\$0	\$0	\$0	0.00	0.00	\$0	\$0	\$0	0.00	0.00
Dec 2013	\$0	\$0	\$0	0.00	0.00	\$0	\$0	\$0	0.00	0.00
Jan 2014	\$0	\$0	\$0	0.00	0.00	\$0	\$0	\$0	0.00	0.00
Feb 2014	\$0	\$0	\$13	0.00	0.00	\$0	\$0	\$13	0.00	0.00
Mar 2014	\$330	\$306	\$183	0.93	1.67	\$330	\$306	\$196	0.93	1.56
Apr 2014	\$324	\$443	\$397	1.37	1.11	\$653	\$748	\$593	1.15	1.26
May 2014	\$482	\$903	\$765	1.88	1.18	\$1,135	\$1,651	\$1,358	1.45	1.22
Jun 2014	\$547	\$664	\$472	1.21	1.41	\$1,682	\$2,315	\$1,830	1.38	1.27
Jul 2014	\$775	\$503	\$777	0.65	0.65	\$2,457	\$2,818	\$2,607	1.15	1.08
Aug 2014	\$1,188					/ 10-				
Sep 2014	\$874									
CTD	\$2,456	\$2,818	\$2,607	1.15	1.08					

Treat Waste

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

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

M-045-22-T01, Submit Results of Vadose Zone Characterization of 241-TX to Ecology, Due: September 30, 2014, based on M-045-20 TPA Change Package M-45-12-05, Status: 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 for review and approval as an Agreement primary document a Phase 2 RCRA Facility Investigation/Corrective Measures Study Report for WMA Area C (WMA-C), Due: December 31, 2014, Status: To be missed. Please see issues.

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

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

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

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

#### Significant Past Accomplishments:

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

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

- Transmit the report on the results of soil characterization in TX farm to meet TPA Target Date M-045-22-T01 of September 30, 2014.
- Complete documentation of the WMA-C Phase 2 Resource Conservation and Recovery Act Facility Investigation Report.

### SST Retrieval and Closure Program

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

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

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

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

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

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

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

- M-045-86C: Retrieval Data Report for C-104 was due March 21, 2014. Completed on February 18, 2014 with letter 14-TF-0013
- M-045-86F: Retrieval Data Report for C-108 was due May 1, 2014. Completed on November 27, 2013 with letter 13-TF-0120
- M-045-86G: Retrieval Data Report for C-109 was due June 4, 2014. Completed on March 13, 2014 with letter 14-TF-0020
- M-045-86H: Retrieval Data Report for C-110 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
- See discussions above and related discussions in Consent Decree report.

#### Issues:

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

### Tank Waste Retrieval Work Plan Status

Tank	TWRWP	Expected Revisions	First Retrieval Technology	Second Technology	Third Technology
C-101	1 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	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, 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" <u>Tank 241-C-106</u>

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

September 2014

### Office of River Protection

### Consent Decree 08-5085-FVS Monthly Summary Report

# September 2014 (Monthly Summary Report/Project Earned Value Management System reflects July 2014 information)

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

### **CD Milestone Statistics/Status**

Milestone	Title	Due Date	Completion Date	Status
	Fiscal Year 2	014		
D-00B-01	Complete Retrieval of Tank Waste from 10 SSTs in WMA-C	09/30/2014		Ongoing*
D-00B-02	Advise Ecology of the 9 SSTs Waste Will be Retrieved by 2022	09/30/2014	08/24/2011	Completed
	Fiscal Year 2	015		
D-00A-07	LAW Facility Construction Substantially Complete	12/31/2014		Ongoing*
D-00A-19	Complete elevation 98 feet Concrete Floor Slab Placements in PT Facility	12/31/2014		Ongoing*

<sup>\*</sup> 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.

DOE = U.S. Department of Energy. PT = Pretreatment (Facility). Ecology = Washington State Department of Ecology. SST = single-shell tank.

LAW = Low-Activity Waste (Facility). WMA-C = C-Farm Waste Management Area.

#### **Consent Decree Reports/Reviews**

D-00C-01 series, Submit to State of Washington and State of Oregon Semi-Annual Report, Due: Semiannually – January 31 and July 31 of each year, Status: Ongoing. The July 2014 Semiannual Report was issued on July 31, 2014 via U.S. Department of Energy (DOE), Office of River Protection (ORP) Letter 14-ECD-0040.

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

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

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

### Single-Shell Tank Retrieval Program

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

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

TBD = to be determined.

WMA-C = C-Farm Waste Management Area.

### Significant Past Accomplishments:

- Operated C-102 modified sluicing operations with limited sluicer functions retrieving over 65 percent of the volume of waste.
- Continued operation of the Mobile Arm Retrieval System Vacuum system at C-105, operating vacuum/slurry pump system for over 400 hours.
- Completed C-107 hard heel retrieval with hot water dissolution.
- Continued with evaluation of C-111 sluicer failure modes to support design of new replacement sluicers.

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

- Complete retrieval of C-102 using modified sluicing.
- Continue retrieval of C-105 using Mobile Arm Retrieval System Vacuum.
- Begin startup of hard heel retrieval in C-111 using high-pressure water, with caustic/water dissolution available.

#### **Issues:**

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

### **Tank Waste Retrieval Work Plan Status**

Tank	TWRWP	<b>Expected Revisions</b>	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	1 Complete MAI		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	1 Complete   Modifi		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.

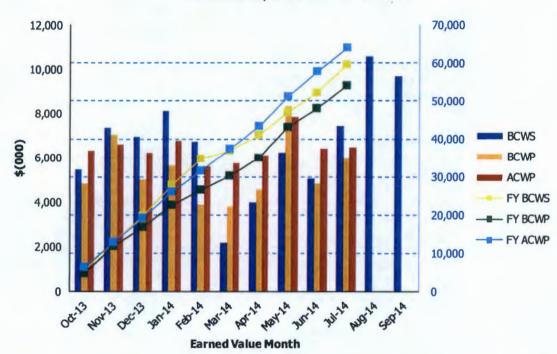
Issues:

None.

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

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





**Earned Value BCWS BCWP ACWP** SPI CPI FY BCWS FY BCWP **FY ACWP FY SPI** FY CPI Month \$4,823 0.88 0.76 Oct 2013 \$5,483 \$6,336 \$5,483 0.76 \$4,823 \$6,336 0.88 0.96 Nov 2013 \$7,366 \$7,054 \$6,609 1.07 \$12,849 \$11,876 \$12,945 0.92 0.92 \$5,002 Dec 2013 \$6,970 \$6,231 0.72 0.80 \$19,820 0.85 \$16,878 \$19,176 0.88 \$5,661 \$6,765 Jan 2014 \$8,102 0.70 0.84 \$27,922 \$22,539 \$25,941 0.81 0.87 Feb 2014 \$3,914 \$5,602 \$6,726 0.58 0.70 \$34,647 \$26,453 \$31,543 0.76 0.84 \$3,805 \$5,729 Mar 2014 \$2,201 1.73 0.66 \$36,849 \$30,258 \$37,273 0.82 0.81 \$4,558 \$6,079 Apr 2014 \$4,000 1.14 0.75 \$40,848 \$34,816 \$43,352 0.85 0.80 May 2014 \$7,855 \$6,255 \$8,331 1.33 1.06 \$47,103 \$43,146 \$51,207 0.92 0.84 \$6,413 Jun 2014 \$5,055 \$4,826 0.95 0.75 \$52,158 \$47,972 \$57,621 0.92 0.83 \$7,437 Jul 2014 \$5,954 \$6,461 0.80 0.92 \$59,595 \$53,926 \$64,082 0.90 0.84 Aug 2014 \$10,588 Sep 2014 \$9,711 CTD \$486,434 \$480,766 \$490,921 0.99 0.98

### 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 2,634 full-time equivalent contractor (Bechtel National, Inc. [BNI]) and subcontractor personnel. This includes 623 craft, 393 nonmanual, and 197 subcontractor full-time equivalent personnel working at the WTP construction site (all facilities).

As of July 2014, the combined Low-Activity Waste (LAW) Facility, Analytical Laboratory (LAB), and Balance of Facilities (BOF) (collectively LBL) were 69 percent complete, design and engineering was 83 percent complete, procurement was 85 percent complete, construction was 81 percent complete, and startup and commissioning was 15 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 July 2014, the cumulative to-date WTP Project schedule variance was a negative \$146.1 million, and the cumulative to-date WTP Project cost variance was a negative \$13.1 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 July 2014.

### Significant Past Accomplishments:

- Completed fabrication of 8 ft pulse jet mixer (PJM) test fixture with movable PJMs (PT)
- DOE authorized BNI to resume all engineering work necessary to finalize the design of the HLW Facility on August 19, 2014 (HLW)
- Installed 11 tons of structural steel mostly steel to support slabs 4019 and 4020 over Canister Handling Cave (HLW)
- Completed melter electrode installation (total of 12 each) (LAW)
- Installed over 200 linear feet of process piping and hydro-tested 2,160 linear feet of facility piping (LAW)
- Completed Cathodic protection system test station installation (BOF)

• Completed recertification of radioactive liquid waste disposal (RLD) vessels 163, 164, and 165 (LAB).

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

- Complete modification at Full-Scale Vessel Testing Facility to support Phase 2 testing for the PJM controls (PT)
- DOE approval of PT resumption plan to support DOE authorization to proceed with production engineering (PT)
- BNI to submit PT Facility Safety Design Strategy (SDS) Plan for DOE review (PT)
- Complete installation of autosampling system (LAW)
- Complete the LAW Facility design and operability review (LAW)
- 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 the WTP include, among others, PJMs, corrosion/erosion in piping and vessels, hydrogen accumulation, criticality, and ventilation.

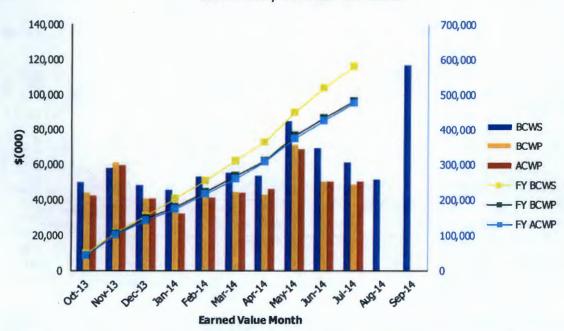
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2014 Earned Value Data

Data as of: July 2014

# River Protection Project Waste Treatment Plant (WTP) Project

**EVMS Monthly and Fiscal Year Values** 



Earned Value Month	BCWS	BEWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2013	\$49,959	\$43,981	\$42,448	0.88	1.04	\$49,959	\$43,981	\$42,448	0.88	1.04
Nov 2013	\$58,047	\$61,276	\$59,935	1.06	1.02	\$108,006	\$105,257	\$102,383	0.97	1.03
Dec 2013	\$48,739	\$41,149	\$40,881	0.84	1.01	\$156,745	\$146,406	\$143,264	0.93	1.02
Jan 2014	\$45,633	\$34,448	\$32,185	0.75	1.07	\$202,378	\$180,854	\$175,449	0.89	1.03
Feb 2014	\$53,315	\$42,491	\$41,349	0.80	1.03	\$255,693	\$223,345	\$216,798	0.87	1.03
Mar 2014	\$55,327	\$44,937	\$44,053	0.81	1.02	\$311,020	\$268,282	\$260,851	0.86	1.03
Apr 2014	\$53,695	\$43,232	\$46,086	0.81	0.94	\$364,715	\$311,514	\$306,937	0.85	1.01
May 2014	\$84,691	\$71,474	\$68,633	0.84	1.04	\$449,406	\$382,988	\$375,570	0.85	1.02
Jun 2014	\$69,440	\$50,571	\$50,680	0.73	1.00	\$518,846	\$433,559	\$426,250	0.84	1.02
Jul 2014	\$61,232	\$49,176	\$50,487	0.80	0.97	\$580,078	\$482,735	\$476,737	0.83	1.01
Aug 2014	\$51,488									
Sep 2014	\$116,961									
PTD	\$8,370,291	\$8,224,209	\$8,237,347	0.98	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.

Technical review teams continue to evaluate open PT Facility technical issues. 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, which are undergoing DOE review. The eight technical issues are the T1 Hydrogen in Vessels, T2 Criticality, T3 HPAV, T4 Mixing, T5 Erosion Corrosion, T6 PTF Optimization, T7 Vessel Analysis, and T8 Ventilation.

DOE completed a review of the PT resumption plan that supports the authorization to proceed with production engineering, and provided comments to BNI for incorporation. BNI has submitted a fiscal year (FY) 2015–FY 2016 two-year work plan, which is being reviewed by DOE.

### Significant Past Accomplishments:

- Continued testing of the PJM controls at the Full-Scale test facility
- Completed fabrication of 8 ft PJM test fixture with movable PJMs
- Continued jet impingement testing for erosion; Phase 2 test is complete
- Continued conceptual design for a standardized high-solids vessel design
- Continued maintenance activities as result of PT Facility assessment.

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

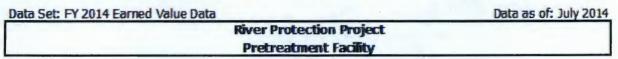
- Complete modification at Full-Scale Vessel Testing Facility to support Phase 2 testing for the PJM controls
- Evaluate potential savings relative to storing procured commodities onsite compared to storing at vendor facilities during suspensions of procurements

- DOE approval of PT resumption plan to support DOE authorization to proceed with production engineering
- Finalize technical team strategic plans
- BNI to submit PT Facility SDS Plan for DOE review
- Finalize test plan, simulant composition, and test instrument list for full-scale vessel mixing tests
- Define standardized vessel selection criteria in support of vessel mixing resolution
- Complete critical dimensions for PJM array
- Start informational testing in 8-ft test vessel for down selection of features pertaining to standardized high-solids vessel design.

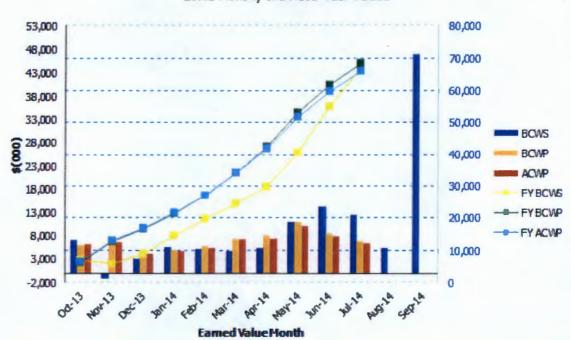
#### **Issues:**

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

EXC-01a: Fiscal Year Cost and Schedule Report



#### **EVMS Monthly and Fiscal Year Values**



Earned Value BOWS BCWP ACVIP SPI CPI FY BCWS FYECUMP **FY ACWP** FY SPI FY CPI Month \$6,224 Oct 2013 \$5,954 \$5,927 0.85 0.95 \$5,954 \$5,927 \$5,224 0.85 0.95 Nov 2013 \$5,646 -5.500.98 (\$1,213) \$5,573 1.00 \$5,741 \$12,600 \$12,870 2.19 Dec 2013 \$3,109 \$4,053 1.27 \$16,557 0.98 \$3,957 0.98 \$8,850 \$16,923 1.87 Jan 2014 \$5,616 \$4,856 \$4,809 0.86 1.01 \$14,466 \$21,413 \$21,732 1.48 0.99 Feb 2014 \$5,155 \$5,673 \$5,261 1.10 1.08 \$19,621 \$27,086 \$26,993 1.38 1.00 Mar 2014 \$4,751 \$7,210 \$7,173 1.52 1.01 \$24,372 \$34,296 \$34,166 1.41 1.00 Apr 2014 \$5,329 \$7,957 \$7,521 1.49 1.06 \$29,701 \$42,253 \$41,687 1.01 1.42 May 2014 \$10,845 \$10,888 \$10,039 1.00 1.08 \$40,546 \$53,141 \$51,726 1.31 1.03 Jun 2014 \$14,207 \$8,532 0.60 1.08 \$7,915 \$54,753 \$51,673 \$59,641 1.03 1.13 Jul 2014 \$12,442 \$6,706 0.54 1.05 \$67,195 \$68,379 \$66,056 1.04 \$5,415 1.02 Aug 2014 \$5,459 Sep 2014 \$46,949 PTD \$1,594,485 \$1,578,388 \$1,573,800 1.00

### **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. BNI and DOE continue to focus on resolving technical issues, performing hazard analyses, and completing safety evaluations for process systems in accordance with the PT/HLW 2-Year Interim Work Plan.

Construction activities include the placement of walls at the 37-foot elevation, installation of structural steel at the 58- and 77-foot elevation, and installation of cable tray supports and ventilation ducts at the 14-foot elevation. For the last 6 months, the HLW activities were focused on supporting authorization to proceed with a resumption of production engineering.

DOE has authorized BNI to resume all engineering work necessary to finalize the design of the HLW Facility on August 19, 2014. DOE has also authorized limited procurement and construction with certain conditions.

Office of River Protection has provided this authorization because BNI has made significant progress in resolving technical issues and establishing work processes to align the HLW Facility design and safety basis. The accomplishments include substantial resolution of the HLW technical issues as documented in BNI design assessments; Office of River Protection approval of BNI corrective action plans for nine technical and quality Priority Level 1 findings; BNI's revision of design and nuclear safety processes, and plans and procedures to implement the HLW SDS; development of the Reliability Validation Process Extent-of-Condition Plan and associated EPC Process Gates desk instruction; development of a systems engineering management plan; completion of a risk assessment to support continued civil construction of the HLW Facility; preparation of risk assessment sheets for confinement ventilation and process off-gas systems; and DOE approval of the HLW SDS.

Currently, DOE is in the process of finalizing the resumption plan and the 2-year work plan for FY 2015 and FY 2016.

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

- DOE authorized BNI to resume all engineering work necessary to finalize the design of the HLW Facility on August 19, 2014
- · One concrete placement was made in mid-July
- Continued initial testing on Porvair high-efficiency particulate air (HEPA) filter at Mississippi State University
- Installed 11 tons of structural steel mostly steel to support slabs 4019 and 4020 over Canister Handling Cave.

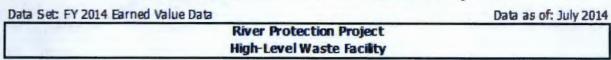
#### Significant Planned Actions in the Next 6 Months:

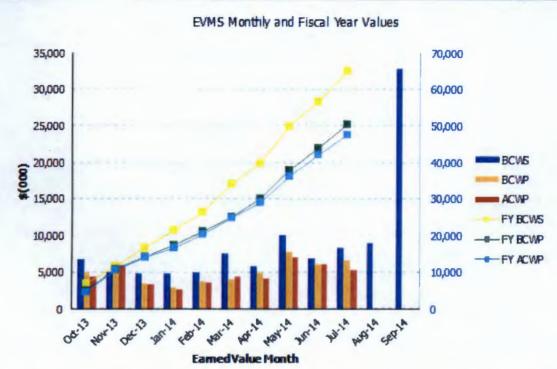
- Issue request for proposal for vendor design of RLD-8 vessel
- Glove box 29 and 42 assembly/fabrication for auto samplers
- Twelve tons of steel forecasted for delivery in the Fourth Quarter FY 2014
- Perform gap analysis to identify misalignments with the current Preliminary Documented Safety Analysis and to identify safety analyses necessary to incorporate the SDS into the Preliminary Documented Safety Analysis
- Complete draft analysis of single-point failures in support of failure mode analysis
- Perform HEPA filter qualification testing at Mississippi State University
- Continue activities to support the RLD system redesign in support of vessel reprocurement.

#### 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.

EXC-01a: Fiscal Year Cost and Schedule Report





Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BOWS	FYBCWP	FY ACWP	FY SPI	FY CPI
Oct 2013	\$6,818	\$4,914	\$4,390	0.72	1.12	\$6,818	\$4,914	\$4,390	0.72	1.12
Nov 2013	\$4,892	\$5,842	\$6,055	1.19	0.96	\$11,710	\$10,756	\$10,445	0.92	1.03
Dec 2013	\$4,811	\$3,559	\$3,420	0.74	1.04	\$16,521	\$14,315	\$13,865	0.87	1.03
Jan 2014	\$4,778	\$2,998	\$2,760	0.63	1.09	\$21,299	\$17,313	\$16,625	0.81	1.04
Feb 2014	\$4,927	\$3,736	\$3,647	0.76	1.02	\$26,226	\$21,049	\$20,272	0.80	1.04
Mar 2014	\$7,612	\$4,010	\$4,391	0.53	0.91	\$33,838	\$25,059	\$24,663	0.74	1.02
Apr 2014	\$5,867	\$4,921	\$4,203	0.84	1.17	\$39,705	\$29,980	\$28,866	0.75	1.04
May 2014	\$10,121	\$7,861	\$7,079	0.78	1.11	\$49,826	\$37,841	\$35,945	0.76	1.05
Jun 2014	\$6,975	\$6,073	\$5,097	0.87	1.00	\$56,801	\$43,914	\$42,042	0.77	1.04
Jul 2014	\$8,292	\$6,589	\$5,379	0.79	1.22	\$65,093	\$50,503	\$47,421	0.78	1.06
Aug 2014	\$9,052									
Sep 2014	\$32,827									
PTD	\$1,051,896	\$1,039,683	\$1,030,291	0.99	101					

### **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 July 2014, the LAW Facility was 71 percent complete overall, with engineering design 82 percent complete, procurement 89 percent complete, construction 77 percent complete, and startup and commissioning 7 percent complete. On February 24, 2014, DOE requested that BNI develop a contract modification proposal for the following:

- Completing the LBL work scope in the current contract through hot commissioning
- Completing initial planning and design for incorporating a permanent capability to accommodate a direct feed LAW option in the WTP Project.

### **Significant Past Accomplishments:**

- Placed all AZS bricks on the north, east, and west walls for the lower glass pool refractory
- Completed melter electrode installation (total of 12 each)
- Completed motor alignment on LVP exhausters
- Installed over 1,040 linear feet of conduit and pulled over 15,900 linear feet of cable
- Installed over 200 linear feet of process piping and hydro-tested 2,160 linear feet of facility piping.

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

- Complete installation of autosampling system
- Award the purchase order for the "active" gas analyzers
- Submit the thermal catalytic oxidizer permit package for independent qualified registered professional engineer review
- Complete the LAW Facility design and operability review
- Continue refractory brick installation in the melters.

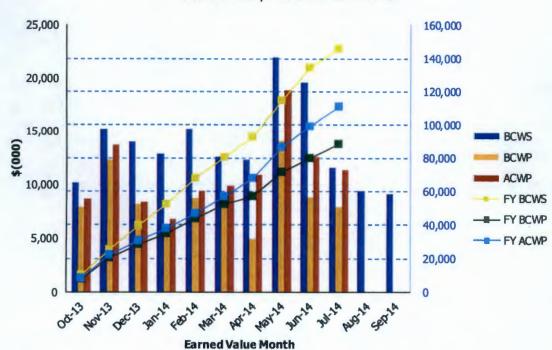
#### **Issues:**

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

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







Earned Value **BCWS BCWP ACWP** SPI CPI **FY BCWS** FY BCWP **FY ACWP** FY SPI FY CPI Month Oct 2013 \$10,160 \$7,952 \$8,677 0.78 0.92 \$10,160 0.78 0.92 \$7,952 \$8,677 \$15,237 Nov 2013 \$12,339 \$13,732 0.81 0.90 \$25,397 \$22,409 0.80 0.91 \$20,291 \$14,003 Dec 2013 \$8,214 \$8,389 0.59 0.98 \$39,400 \$28,505 \$30,798 0.72 0.93 Jan 2014 \$12,919 \$6,382 \$6,795 0.49 0.94 \$52,319 \$34,887 \$37,593 0.67 0.93 Feb 2014 \$15,254 \$8,750 \$9,433 0.57 0.93 \$67,573 \$43,637 \$47,026 0.65 0.93 \$8,478 \$9,852 Mar 2014 \$12,596 \$80,169 \$56,878 0.67 0.86 \$52,115 0.65 0.92 \$10,936 Apr 2014 \$12,335 \$4,958 0.40 \$92,504 \$57,073 \$67,814 0.62 0.84 0.45 \$18,840 May 2014 \$21,988 \$14,117 0.75 \$114,492 \$86,654 0.64 \$71,190 0.62 0.82 Jun 2014 \$12,594 \$19,658 \$8,885 0.71 \$134,150 \$80,075 \$99,248 0.60 0.81 0.45 Jul 2014 \$11,551 \$7,974 \$11,433 0.69 0.70 \$145,701 \$88,049 \$110,681 0.60 0.80 Aug 2014 \$9,406 Sep 2014 \$9,120 PTD \$950,200 \$877,539 \$953,962 0.92 0.92

### **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 July 2014, BOF was 63 percent complete overall, with engineering design 84 percent complete, procurement 72 percent complete, construction 82 percent complete, and startup and commissioning 18 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. The standby diesel generator has been placed along with the heat exchanger and fuel tank that support it.

### Significant Past Accomplishments:

- Set standby diesel generator fuel tank and heat exchangers
- Completed 4,750 linear feet of cable pulling and 275 terminations
- Continued recoating activities for fire service water tanks
- Completed Cathodic protection system test station installation.

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

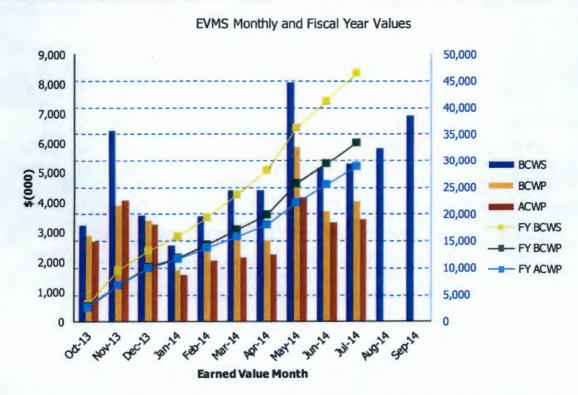
- Complete construction of the Glass Former Storage Facility
- · Complete repair work for fire service water tanks
- Receive the replacement nonradioactive liquid waste disposal panel
- Complete component testing of the low-voltage, medium-voltage, and fire detection systems for switchgear Buildings 87 and 91.

#### Issues:

No major issues at this time.

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





Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2013	\$3,218	\$2,901	\$2,679	0.90	1.08	\$3,218	\$2,901	\$2,679	0.90	1.08
Nov 2013	\$6,431	\$3,886	\$4,067	0.60	0.96	\$9,649	\$6,787	\$6,746	0.70	1.01
Dec 2013	\$3,547	\$3,395	\$3,267	0.96	1.04	\$13,196	\$10,182	\$10,013	0.77	1.02
Jan 2014	\$2,538	\$1,737	\$1,562	0.68	1.11	\$15,734	\$11,919	\$11,575	0.76	1.03
Feb 2014	\$3,528	\$2,356	\$2,047	0.67	1.15	\$19,262	\$14,275	\$13,622	0.74	1.05
Mar 2014	\$4,394	\$2,806	\$2,163	0.64	1.30	\$23,656	\$17,081	\$15,785	0.72	1.08
Apr 2014	\$4,399	\$2,724	\$2,238	0.62	1.22	\$28,055	\$19,805	\$18,023	0.71	1.10
May 2014	\$8,035	\$5,861	\$4,179	0.73	1.40	\$36,090	\$25,666	\$22,202	0.71	1.16
Jun 2014	\$5,161	\$3,711	\$3,320	0.72	1.12	\$41,251	\$29,377	\$25,522	0.71	1.15
Jul 2014	\$5,297	\$4,032	\$3,415	0.76	1.18	\$46,548	\$33,409	\$28,937	0.72	1.15
Aug 2014	\$5,827									
Sep 2014	\$6,945									
PTD	\$373.262	\$351.058	\$340.307	0.94	1.03					

### **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 July 2014, the LAB was 75 percent complete overall, with engineering design 83 percent complete, procurement 86 percent complete, construction 93 percent complete, and startup and commissioning 25 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 (5,410 linear feet in July)
- Continued installation of instrumentation tubing (1,520 linear feet in July)
- Continued installation of penetration seals and fireproofing (97 percent complete)
- Completed Recertification of RLD vessels 163, 164, and 165.

### 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** 

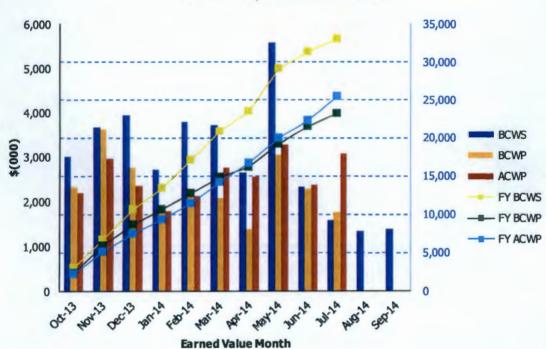
Data Set: FY 2014 Earned Value Data

River Protection Project

Analytical Laboratory

Data as of: July 2014





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Earned Value Month	00110		ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2013	\$3,008	\$2,328	\$2,196	0.77	1.06	\$3,008	\$2,328	\$2,196	0.77	1.06
Nov 2013	\$3,689	\$3,629	\$2,959	0.98	1.23	\$6,697	\$5,957	\$5,155	0.89	1.16
Dec 2013	\$3,943	\$2,750	\$2,350	0.70	1.17	\$10,640	\$8,707	\$7,505	0.82	1.16
Jan 2014	\$2,705	\$1,875	\$1,788	0.69	1.05	\$13,345	\$10,582	\$9,293	0.79	1.14
Feb 2014	\$3,783	\$2,130	\$2,126	0.56	1.00	\$17,128	\$12,712	\$11,419	0.74	1.11
Mar 2014	\$3,718	\$2,080	\$2,751	0.56	0.76	\$20,846	\$14,792	\$14,170	0.71	1.04
Apr 2014	\$2,642	\$1,382	\$2,552	0.52	0.54	\$23,488	\$16,174	\$16,722	0.69	0.97
May 2014	\$5,592	\$3,040	\$3,274	0.54	0.93	\$29,080	\$19,214	\$19,996	0.66	0.96
Jun 2014	\$2,330	\$2,291	\$2,375	0.98	0.96	\$31,410	\$21,505	\$22,371	0.68	0.96
Jul 2014	\$1,591	\$1,772	\$3,082	1.11	0.57	\$33,001	\$23,277	\$25,453	0.71	0.91
Aug 2014	\$1,351									
Sep 2014	\$1,381									
PTD	\$270,039	\$256,360	\$277,956	0.95	0.92					

#### Waste Treatment Plant Project - (LBL) Percent Complete Status

Through July 2014

(Dollars - Milliona) Facilities	Overall Facility Percent Complete Unallocated Dollars			Design/Engineering Unallocated Dollars			Procurement Unallocated Dollars			Construction Unallocated Dollars			Startup & Plant Operations Unallocated Dollars			Project Management & Shared Services Unallocated Dollars		
	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)			Performance Measurement Baseline (PMB)		% Complete	Performance Measurement Baseline (PMB)	_	∰ Comμlete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete
Low-Activity Waste	1,240.4	877.5	71%	329.7	270.6	82%	263.5	233.7	89%	464 1	359.0	77%	181.3	13.1	7%	1.9	1.3	69%
Analytical Lab	339.9	256,4	75%	73.7	61.1	83%	56.0	48.2	86%	138.5	128.5	93%	71.1	18.1	25%	0.6	0.4	69%
Balance of Facilities	561.6	351.1	63%	96.5	81.1	84%	74.7	54.0	72%	225,6	185.0	82%	165.5	30.6	18%	0.6	0.4	69%
Total LBL	2.142.0	1.485.0	69%	499.9	412.8	83%	394.2	335.8	85%	828.1	672.5	81%	418.0	61.8	15°.	3.0	2,1	69%
				PT/HLW/SS	Percent C	omplete s	Status Froze	en as of Se	ptember 2	012 (due to	project reb	paselining	efforts)					
High-Level Waste	1,478.6	922.1	62%	364.4	325.2	89%	433.9	349.4	81%	561.1	243.2	43%	119.2	4.4	4%	n/a	n/a	n/a
Pretreatment	2,517.3	1,410.5	56%	761.7	645.8	85%	679.9	380.4	56%	890.0	378.6	43%	185.8	5.6	3%	n/a	n/a	n/a
Shared Services	4,726.9	3,632.6	77%	1,047.0	977.9	93%	451.7	395.0	87%	1,436.5	1,143.0	80%	453.5	133.2	29%	n/a	n/a	n/a
Total HLW/PT/SS	8,722.8	5,965.2	68%	2,173.1	1,948.9	90%	1,565.5	1,124.8	72%	2,887.6	1,764.8	61%	758.5	143.2	19%	nla	n/a	n/a
Undistributed Budget	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total WTP	10.864.8	7.450.2	69%	2,673.0	2.361.7	88%	1,959.7	1,460.6	75%	3,715.7	2.437.3	66%	1.176.5	205.0	17%	n/a	n/a	n/a

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

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

## Core Sampling Platform at 241-SY-102, Riser 2

Sampling Began September 9 and was Completed September 22







SY-102 Segment 8
First core sample since June 2008
from AP-103

SY-102 Segment 9