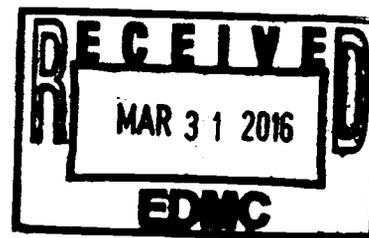


Office of River Protection Tri-Party Agreement Milestone Review Meeting Minutes

Washington State Department of Ecology Building
Richland, Washington

February 18, 2016



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TRI-PARTY AGREEMENT MILESTONE REVIEW AND MONTHLY SUMMARY REPORT

1.0 ADMINSTRATIVE ITEMS/MILESTONE STATUS

The reports, agreements, issues, actions, and key documents list were discussed and updated as follows:

Upcoming Meetings

The next U.S. Department of Energy (DOE), Office of River Protection (ORP) project managers meeting is scheduled for March 16, 2016, from 1:00 p.m. to 3:30 p.m. at the ORP office in Richland, Washington.

Recent Items Entered/To Be Entered into the Administrative Record

ORP provided the monthly Tri-Party Agreement (TPA) and Consent Decree (CD) reports, which will be submitted to the Administrative Record.

Tri-Party Agreement Milestone Status

See page 2 of the TPA monthly summary report.

Action No. 1 (TF-14-06-02)

ORP stated that biweekly meetings continue to be held with Ecology to discuss the Waste Management Area C (WMA-C) performance assessment (PA), including a meeting that was held yesterday (2/17/16). ORP suggested closing this action. Ecology agreed to close this action. This action was closed.

Action No. 2 (TF-14-02-02)

ORP stated that a draft schedule was provided to Ecology, and recommended closing this action. Ecology responded that there were to be meetings scheduled to discuss closure. ORP noted that the dispute related to M-045-82 has been extended. Ecology agreed that this action could be closed since there is a dispute in place. ORP stated that meetings will be scheduled in the near future to continue the discussions with Ecology. This action was closed.

Action No. 3 (TF-13-12-01)

ORP stated that there had been discussion about moving this action to the agreements section of the table. Ecology stated that it had provided a list of team members some time ago, but the list has changed. There was a brief discussion regarding a mechanism for periodically updating the list. ORP took the action to send Ecology the list from the meetings held on Monday that will provide the team members and their responsibilities. Ecology responded that the list that ORP suggested sending would be adequate for its needs. ORP added that the meeting agenda for the ORP quarterly milestone review and project managers meeting has the program managers, and the attendance list from the meetings provides the team members. This action was closed.

Action No. 4 (TF-13-02-03)

ORP stated that this action could be addressed with the ongoing C farm PA meetings and the closure discussions that are part of action No. 2. ORP suggested closing this action. Ecology agreed that this action could be closed. This action was closed.

Action No. 5 (TF-15-03-05)

This action was closed during the January 21, 2016 ORP project managers meeting, and it will be removed from the action table.

Action No. 6 (TF-15-06-01)

ORP reported that agreement has been reached with the lawyers to remove the Official Use Only (OUO) marking on all of the current technical documents, and ORP sent a letter to WRPS last week directing it to remove the OUO marking. WRPS is working with AECOM on the process to invite Ecology to Low Activity Waste Pretreatment System (LAWPS) meetings and releasing the technical documents. Ecology asked if there will be a suite of documents that will be transmitted. ORP responded that all of the Piping and Instrumentation Drawings (P&IDs) and the calculations, which essentially are the technical documentation, will be transmitted. ORP noted that there are numerous documents, and it is working with WRPS and AECOM to prioritize the documents and ensure configuration control. Ecology asked if the latest revision of the document will be provided. ORP responded that it would be the latest revision, which is the 30 percent design media. ORP estimated that transmittal of the 30 percent design media to Ecology will start by the end of March 2016. ORP stated that the 60 percent design media will be transmitted to Ecology during the summer 2016, and the 90 percent design media will come over by late fall 2016. ORP noted that the changes between the 60 percent design and 90 percent design will be minimal, since it reflects refinement of the design. Ecology asked if the 60 percent design would represent the configuration baseline. ORP responded that before acceptance is received from DOE, CD-2/3 has to be at 90 percent.

Ecology asked if mass balance or flow sheets will be provided. ORP responded that mass balance and flow sheets are at 30 percent. Ecology asked if the flow sheets and mass balance will be part of ORP's submission this summer. ORP responded that it will be part of the submission. Ecology stated the assumption that the submission may involve tank farms. ORP responded that for LAWPS it does not involve tank farms, and described the boundary for LAWPS going from the fence line of AP tank farm, just east of the tanks and heading up to LAWPS.

Ecology noted that ORP raised a point regarding an issue with One System. Ecology stated that LAWPS will not work unless AP farm and all the infrastructure of the pipes, etc., is completed and ready for operation. Ecology inquired about the overall system view for supporting LAWPS. ORP responded that it has been reviewing all the different tank farm pieces. ORP stated that the infrastructure portions and waste feed structure system in tank farms are relatively simple, and it is comprised of one pit, potentially, and the infrastructure between two tanks. Ecology asked if there is no return flow. ORP responded that there is return flow from LAWPS through the same pit and the three lines that go into LAWPS that create the inflow and outflow. Ecology stated that feed will be prepped in one tank, which could sit in the tank for the amount

of time it would take to sample and characterize, and there would be a second tank for the return system. Ecology stated that depending on the flow rate, there may need to be a second tank for prep, which could possibly require a total of three tanks to intermittently service LAWPS. ORP responded that AP-105 and AP-107 are the two tanks designated for feed and receipt, and tank AP-103 is an alternate to be used as a backup in case of a bottleneck. ORP noted that the tanks will not be taken out of service, and it will help from a volume perspective because waste is being pulled into the tanks and then sent out.

Ecology asked if mass balance could be charted from the feed tank all the way through the system. ORP responded that mass balance will be charted all the way through the system, including the LAWPS side, and noted that the waste feed delivery plan provides the overall view of the mass balance going through the system. Ecology asked if a summary meeting will be held to provide the overall view of waste feed delivery. ORP responded that once the overview of waste feed delivery has been released, a meeting would be scheduled with Ecology. Ecology stated that ORP was indicating the tanks will not be modified. ORP responded that the tanks will not be modified, and a floating suction head pump will be used in a pit to suck the supernate off the top. ORP added that it is still unknown if a new pit will be needed or if AP pit will be used, and those are part of the efforts under way to understand the infrastructure needs. Ecology inquired about the amount of infrastructure that is in place and how much will need to be built. ORP asked if Ecology was inquiring specific to tank farms. Ecology responded that the inquiry is from the whole system view.

ORP responded that potentially a new pit and new pumps or pump design and piping will be needed in tank farms. ORP stated that from a LAWPS perspective, the infrastructure will include everything from the fence line of AP farm, pipelines included, to the boundary of the Waste Treatment and Immobilization Plant (WTP). ORP stated that the question could be addressed from the WTP perspective during the next portion of today's meeting. ORP noted that for WTP, it would be the lines into their facilities and the route coming back. ORP added that the goal is to eliminate the return, if possible, through optimization of the system view. ORP stated that the effort is under way to manage execution of the system view through the integrated schedule, including the functional requirements for tank farms as well as all the activities that will be needed. Ecology inquired about the availability of the integrated schedule. ORP responded that the integrated schedule was shared with Ecology senior management, and it is still marked OUO. Ecology noted that the further ORP proceeds without sharing information, there will be more issues with permitting and other activities needed for LAWPS to become operational. ORP stated that the first step was to get the LAWPS design media released, which represents the main impact to permitting, and the tank farm components will be relatively minor. This action remains open.

Action No. 7 (TF-15-07-03)

ORP stated that the basis for retrieving in AX farm is part of the draft Tank Waste Retrieval Work Plans (TWRWPs) that were transmitted to Ecology, and the basis will continue to be addressed via comments. ORP suggested closing this action, and Ecology agreed that it could be closed. This action was closed.

Action No. 8 (TF-15-10-01)

ORP stated that this action was closed during a meeting on January 26, 2016, and it will be removed from the table.

Action No. 9 (TF-15-10-02)

ORP stated that an update will be provided to Ecology by the end of February 2016 about holding discussions regarding the flow sheet associated with Liquid Effluent Retention Facility (LERF)/ Effluent Treatment Facility (ETF) and Direct Feed Low Activity Waste (DFLAW). This action remains open.

Action No. 10 (TF-15-10-03)

ORP noted that action No. 8 was closed out, and estimated that information regarding the LERF basin covers could be provided to Ecology in the March 2016 time frame. This action remains open.

Action No. 11 (TF-16-01-01)

See discussion under action No. 6. This action remains open.

Action No. 12 (TF-16-01-02)

ORP noted that this action was discussed under action No. 6. ORP stated that it would follow up with Ecology to provide a status. This action remains open.

Action No. 13 (TF-16-01-03)

ORP stated that it is still gathering information on the AX-104 riser 9D. This action remains open.

Key Documents List

ORP provided an updated key documents list.

2.0 SYSTEM PLAN

ORP stated that there were no updates regarding System Plan 7, and initial planning is under way for System Plan 8. ORP indicated that it will confer with the lawyers and then set up meetings with Ecology. Ecology asked about a time frame for initiating discussions on System Plan 8. ORP responded that the goal is to set up meetings in the early June 2016 time frame in order to meet the October 31, 2016 milestone date.

3.0 ACQUISITION OF NEW FACILITIES

ORP reported that the new change package for the extension to M-047-07 and M-090-13 was signed by ORP and delivered to Ecology today. ORP noted that the dispute will be extended until March 31, 2016.

4.0 SUPPLEMENTAL TREATMENT AND PART B PERMIT APPLICATIONS

ORP stated that the new change package for the extension to M-062-45 has been signed by ORP and was delivered to Ecology today. The dispute has been extended until March 31, 2016.

5.0 242-A EVAPORATOR STATUS

ORP reported that the EC-04, EC-05 and EC-06 campaigns are currently on schedule. ORP stated that as of yesterday (2/17/16), EC-04 was planned to start the second week of April 2016, and last for ten days. ORP stated that preventive maintenance and calibrations are being done on the evaporator, and the half-ton crane hoist is being replaced. Work is being done on some of the condensers, and the primary condenser will be cleaned after the second campaign (EC-05) has been completed. Ecology inquired about the volumes and reduction expectations for the campaigns. ORP responded that the information is included in the process control plan, and it would follow up with Ecology's request.

6.0 LIQUID EFFLUENT RETENTION FACILITY/200 AREA EFFLUENT TREATMENT FACILITY

ORP reported that a cold test of the evaporator system on a secondary treatment train was recently performed at ETF. During that time a leak test was conducted and completed, and some nuclear chemical operator training was done while the system was in hot operation. ORP stated that efforts continue with the checklist for readiness activities towards restart of ETF, and those activities are scheduled to be completed this spring. ORP reported that a meeting was held yesterday (2/17/16) with Ecology for a comment review on the Class 1 modifications package. Ecology stated that ORP's response to comments was received yesterday, and they are being reviewed.

7.0 TANK SYSTEM UPDATE

ORP noted that for the ultrasonic testing (UT), the floor of the secondary liner in AN-105 is being scanned. ORP stated that the Independent Qualified Registered Professional Engineer (IQRPE) assessment report for the DST systems is in the final clearance stages, and it should be released within the next month for Ecology review.

8.0 SINGLE-SHELL TANK INTEGRITY ASSURANCE

ORP reported that the in-tank video inspections for tanks T-107 and T-110 have been completed. ORP stated that after the video was evaluated, an intrusion into T-107 is suspected. ORP added that after further review of T-110, it was determined that the droplets were condensation from the dome and not an intrusion of water. ORP noted that its intrusion mitigation is a part of the M-045-56 milestone series, and it is continuing active ventilation in T-111. ORP stated that the current estimate is that about 4,000 gallons of water have been removed from T-111, which was the goal. ORP noted that the estimated free liquid in T-111 was 4,000 gallons, but more moisture is being pulled from the sludge than was anticipated, and a liquid pool still remains in the center. ORP added that a few more thousand gallons will probably be removed before the surface is completely dried out.

Oregon Department of Energy (ODOE) asked if there was more than one intrusion identified besides T-107. ORP responded that initially droplets were identified in both tanks, but after further review it was determined that there were too many droplets coming from too many areas in T-110, and an intrusion was ruled out. ORP noted that when there is an intrusion, it is usually localized to a drain from a pit, and in T-110, condensation was observed forming on the dome and droplets falling in multiple places.

9.0 IN-TANK CHARACTERIZATION SUMMARY

ORP stated that the accomplishments list the updates to best basis inventory (BBI) and routine sampling in support of retrievals and closures. ORP noted that there were no issues to status. Ecology asked why SY-101 is being sampled. ORP responded that it is routine chemistry control samples. Ecology asked how often samples are taken for chemistry control. ORP responded that there is a goal to sample every ten years. ORP added that each tank is analyzed every year based on what is known to be in the tank, and if the modeling indicates the layers could be out of spec, then a grab sample is planned. Ecology noted that the C-105 sampling report was finalized, and asked if Ecology had been informed about document. ORP responded that the C-105 sampling has been discussed during the biweekly interface meetings with Ecology. ORP noted that the sampling results from the lab have not been finalized, but there are enough preliminary results that they will be included during the C-105 tank waste retrieval work plan (TWRWP) modification discussions. ORP stated that the draft revisions to the C-105 TWRWP are currently in review and will be shared with Ecology in the near future.

10.0 TANK OPERATIONS CONTRACT OVERVIEW

ORP pointed out that on page 14 of the TPA monthly summary report, the month at the top of the box should read December 2015 instead of November 2015, and the correction will be made before the report is submitted to the Administrative Record. A brief overview of the cost and schedule variances for each project was provided. ORP reported that the unfavorable schedule variance associated with procurement of the Spherical Resorcinol Formaldehyde (sRF) resin (treat waste 5.5) will self-correct since 480 gallons of the resin have been transferred from BNI, and 500 gallons will be delivered in the April/May 2016 time frame. ORP noted that the unfavorable cost variance will also self-correct when the baseline change request is approved to align the contractor's schedule with the current performance measurement baseline.

Ecology asked if there is a shelf life to the sRF resin. ORP responded that there is approximately a ten-year shelf life, but it is maintained in a controlled environment. ORP stated that the 480 gallons that were received were shipped from Savannah River and it was in good condition. ORP noted that resin had been used in the past that was close to 20 years old.

Ecology noted that ORP may be rebidding some contracts, and asked if priorities are included in the request for information (RFI) that is provided to the contractor. ORP responded that the RFI will include the entire scope of work, but it will not include priorities. ORP added that more scope of work may be included than what can be done with current funding. Ecology asked if the scope of work was provided to Ecology. ORP stated that a briefing was given to senior management at Ecology, and offered to go over the briefing with the Ecology project manager. ORP noted that the briefing did not go into detail, and a list of activities was provided to get feedback from Ecology management about any activities missing from the list. Ecology asked if

ORP was planning a business day this year. ORP responded that a business day is planned at the end of March 2016, and it is held for all of the contractors that are interested in bidding on a project. A site tour will be held, and then the acquisition integrated project team will meet with each contractor to review their capabilities. All of the data from the business day will be collected into a report, which will be used to create a strategy going forward. Ecology asked if the process will encompass all of the cross-fence activities that will be needed to accomplish waste treatment, such as LAWPS. ORP responded that it will be encompassed within the regulatory framework.

11.0 SINGLE-SHELL TANK CLOSURE PROGRAM

ORP noted that M-045-82 was discussed earlier today under action No. 2, and the dispute has been extended through March 25, 2016. ORP added that a draft integrated closure schedule was provided to Ecology in January 2016, and follow-on meetings with Ecology have been scheduled. ORP stated that milestone M-045-92 for the barriers is also in dispute, and it is on the agenda for the Inter-Agency Management Integrated Team (IAMIT) meeting today that follows this meeting.

ORP stated that an effort is under way to finalize the summary analysis for the Integrated Disposal Facility (IDF) performance Assessment (PA), and meetings are in the process of being scheduled to get comments from Ecology. Ecology pointed out that there is a very inclusive Environmental Impact Statement (EIS) in place, and a lot of effort was put into the modeling. Ecology stated that as the modeling goes forward, ORP should keep in mind that the EIS is the foundation from which everything should be compared. Ecology added that if the summary analysis and the foundational documents for the PA stray too far from the EIS, it will not be acceptable. ORP acknowledged Ecology's comment, and stated that its understanding is the summary analysis describes how the modeling will be planned for the IDF. Ecology noted that in review of the summary analysis, there appear to be disparities between what Ecology believes to be appropriate in terms of foundational modeling and what seems to be characterized in the document. ORP stated that it is ready to start discussions with Ecology. Ecology noted that the ORP point of contact has been very diligent in attempting to schedule meetings.

Ecology pointed out that M-045-84 is on schedule for January 31, 2017, and asked when ORP plans to start the negotiations. ORP responded that it would follow up with Ecology's inquiry. Ecology requested the follow up as an action item.

Tank Farms Action 1: ORP will provide a response to Ecology regarding the status of M-045-84, which is due January 31, 2017.

12.0 SINGLE-SHELL TANK RETRIEVAL PROGRAM

ORP noted that there have been high-level discussions regarding modifications to the C-105 TWRWP, and the TWRWP will be revised and transmitted to Ecology for review and comment. ORP reported that sluicing in C-111 is under way, which followed a second caustic addition that appeared to be successful. ORP stated that prior to pumping out the caustic, it was estimated that there were about 20,000 gallons of solids remaining. When the caustic was pumped out, there were about 12,000 gallons remaining. The crew was pulled from C-111 on Sunday night to start full-time training for operation of AY-102, and then operations will move between AY-102 and

C-111. ORP noted that those activities have been discussed in the biweekly meetings. Ecology inquired about the activity to complete AX-2707 fencing and gate upgrades. ORP responded that there was a historical spill in this location, and it is a demolition control area. ORP added that it is tied to the demolition and removal of AX-2707. Ecology asked why the work is being done. ORP explained that the buildings have to be removed to clear the space for A/AX retrieval.

13.0 TANK WASTE RETRIEVAL WORK PLAN STATUS

ORP stated that the draft AX TWRWPs have been shared with Ecology, and comments have been received. A meeting will be scheduled with Ecology to discuss the AX TWRWP comments, and the time frame for getting a draft of the C-105 TWRWP modifications will also be discussed. Ecology stated that retrieving the A/AX farm without a PA is not a good plan, and ORP should rethink its approach so that good information is available during retrieval. ORP acknowledged Ecology's comment.

14.0 TANK TRI-PARTY AGREEMENT APPENDIX H STATUS

There was no change in status for tank C-106.

15.0 TANK RETRIEVALS WITH INDIVIDUAL MILESTONES

There was no change in status to tanks A-103 or S-112.

CONSENT DECREE MONTHLY SUMMARY REPORT REVIEW

1.0 CONSENT DECREE MILESTONE STATISTICS/STATUS

The reports, agreements, issues, and actions were discussed and updated as follows.

Action No. 1 (WTP-14-10-01)

ORP stated that comments were received from Ecology regarding the Low Activity Waste (LAW) melter replacement, and a response to the comments was provided. Ecology stated that the LAW design and operability (D&O) report has been issued, and there is a section in the report that speaks to the issue of not having a replacement melter plan being implemented. Ecology expressed the concern about the replacement melter, and requested that ORP attach a higher level of interest to the subject. Ecology pointed out that the evolution for a replacement melter would encompass three to four years, plus another year to place the rails, etc., and then the time it would take to pull the bad melter out. Ecology expressed the concern about outrunning the useful melter life if a spare melter is not ready. Ecology stated that details on a replacement melter are needed as soon as possible and would be very helpful. ORP acknowledged Ecology's comments and concerns, and stated that discussions are needed with Ecology. This action remains open.

Action No. 2 (WTP-14-10-02)

ORP noted that this action was closed in December 2015, and it will be removed from the action table. This action is closed.

Action No. 3 (WTP-14-10-03)

Ecology stated that this action could be closed. Ecology noted that both ORP and Ecology have done their due diligence documenting that the Analytical Laboratory substantially complete milestone has been met. Ecology stated that the technical issues have been discussed, and the conclusion was reached that the milestone has been completed. This action was closed.

Action No. 4 (WTP-14-10-04)

ORP noted that the High Level Waste (HLW) portion of this milestone has been completed, and the PT portion is part of the ongoing Consent Decree judicial process. Ecology asked if any updates could be provided. ORP referred to the update provided last month during the ORP project managers meeting regarding the replanning and reprioritization effort associated with the technical issues, and stated that those efforts are focused towards the rest of FY16 and in FY17. ORP stated that the replanning and reprioritization is still under way, and any more detail could not be provided. ORP added that one question being discussed is how to define the mechanism for closing a technical issue, and it is all part of the progress that is being made. Ecology expressed concern with what it described as a plan for a plan, and not a plan to accomplish something. Ecology acknowledged that some of its concerns are generated from hearsay, but there is a need to understand what is going on as soon as possible. Ecology pointed out that there are permitting and construction issues, and that Ecology does not know what is current in regards to permitting.

ORP acknowledged Ecology's concerns, and stated that meetings are being held with BNI to quickly move forward in regards to defining what closure packages could be incorporated for each technical area. Ecology stated that as ORP moves to closure, a substantive package supporting how closure was reached will be very important. This action remains open.

Action No. 5 (WTP-14-10-05)

See status of action No. 4. This action remains open.

Action No. 6 (WTP-14-06-02)

ORP noted that the subject of this action was discussed under action No. 4. Ecology agreed that it is the same subject as discussed under No. 4. This action remains open.

Action No. 7 (WTP-14-04-01)

ORP noted that this action is tied up with the ongoing CD judicial process. This action remains open.

Action No. 8 (WTP-15-01-01)

Ecology asked if any information could be provided on the standard high-solids vessel design (SHSVD). ORP responded that this action is in the process of being reviewed internally in various areas, and until it's been defined what the studies are, no updates could be provided. ORP added that once that has been clarified, briefings will be scheduled with Ecology. This action remains open.

Action No. 9 (WTP-15-01-03)

ORP noted that this action was closed in December 2015, and it will be removed from the action table. This action is closed.

Action No. 10 (WTP-15-06-01)

ORP reported that this action is part of the replanning and reprioritization effort currently under way (see action No. 4), and release of the corrosion simulant basis document has been pushed out from March 2016 to the end of September 2016. Ecology asked if the delay was due to any technical reasons. ORP responded that it is due to the reprioritization effort. This action remains open.

Action No. 11 (WTP-15-06-02)

ORP stated that the HEPA filter testing is under way and will continue for a while, and the test results have been positive. ORP indicated that a briefing will be provided to Ecology in March 2016. This action remains open.

2.0 SINGLE-SHELL TANK RETRIEVAL AND CLOSURE

See pages 4 and 5 of the CD monthly summary report.

3.0 TANK WASTE RETRIEVAL WORK PLAN STATUS

The CD TWRWP table is identical to the table in the TPA monthly summary report.

4.0 SINGLE-SHELL TANK RETRIEVAL MONTHLY FISCAL YEAR EARNED VALUE MANAGEMENT SYSTEM DATA

See pages 7 and 8 of CD Monthly Summary Report.

5.0 WASTE TREATMENT AND IMMOBILIZATION PLANT PROJECT

ORP provided a brief overview of the WTP project from a percent complete and a cost and schedule variance perspective. Ecology initiated a discussion regarding technical initiatives associated with DFLAW components and the potential for a direct feed HLW (DFHLW) initiative. Ecology noted that LAWPS will essentially be a tank farm entity that will feed WTP, and if DFHLW comes online, then some type of a tank waste characterization and staging facility will be needed. Ecology stated that it is getting to the point where there are a number of facilities either in progress or in the design stage that will need to be coordinated to make the WTP system work. Ecology asked when discussions could be held about the system view to be able to understand how each of the pieces will be accommodated.

ORP responded that when the framework was generated three years ago, which defined several ways to accomplish the mission, DFHLW was proposed and was awarded the grand challenge winner during the grand challenge that was held last fall. ORP stated that as a result of the grand challenge, an engineering study was funded to determine the feasibility of DFHLW. ORP added that an assessment was performed by a group of subject matter experts from Headquarters to evaluate the feasibility of DFHLW from an infrastructure perspective. ORP stated that those activities are the extent of DOE-ORP's consideration of DFHLW, and there will be more information after the engineering study is completed. Ecology inquired about DFLAW. ORP responded that there are no changes to the plans for DFLAW.

6.0 PRETREATMENT FACILITY

ORP referred to the discussions during last month's project managers meeting regarding the current replanning and reprioritization efforts and the discussion today under WTP action No. 4. ORP stated that there may be some changes going into next month based on some of the replanning efforts, and the activities listed for the next six months will be the areas that would change.

ORP stated that the Preliminary Criticality Safety Evaluation (CSER) report is in internal review and comment, and will be provided back to Bechtel within the next two weeks. ORP added that the goal is to reach agreement on the CSER design review by the end of March 2016. ORP reported that a draft copy of the HPAV PDSA was received from Bechtel last week, and there are minimal comments that need to be incorporated before formal submittal.

ORP stated that in regard to the pipe loop design, erosion/corrosion workshops were conducted at the end of January 2016. The workshops correlated to the streamlining efforts with reprioritization. ORP stated that the pipe loop design was nearing completion and was an area that was identified to continue moving forward, and it should be completed by the end of this

month. Ecology asked if the information that is known in the corrosion simulant basis documents will be incorporated into the pipe loop design document. ORP responded that the information will be incorporated, and the premise of the overall workshop was how to incorporate any of the changes. ORP noted that the benefit of collaborating with BNI and ORP technical experts is being realized in the effort to streamline priorities, and for the remainder of FY16 and going into FY17, it will facilitate with the definition of closure in the technical area. Ecology reminded ORP that Ecology's engineers can provide good input and need to be included in the process as the parties move forward to solve issues. ORP acknowledged Ecology's point about involving Ecology's engineers.

ORP stated that the 30 percent test mixing plan that was issued is associated with the SHSVD. ORP noted that there were some vessel design review impacts based on fabrication issues, but the design is moving forward. There are meetings scheduled with one of the vendors fabricating the vessels, with follow-on meetings in the March 2016 time frame.

ORP stated that submittal of the basis of design change notice and the safety requirements document is currently on hold based on the review of the hydrogen in Piping and Ancillary Vessels (HPAV) Preliminary Documented Safety Analysis (PDSA) change package. The design change notice and safety requirements document are still expected to be completed by the end of March 2016. Ecology asked if the HPAV PDSA change package was the only item holding up the design change notice and safety requirements document. ORP responded that it is the only item holding up those documents.

ORP reported that Phase 3 of the controls testing in the SHSVD testing has been impacted by the replanning efforts, and it has been pushed out to the first quarter of FY17. ORP stated that identification of the SHSVD features are scheduled for completion at the end of FY16. Ecology asked what design features remain for consideration. ORP took an action to follow up with Ecology on the remaining design features left to consider.

WTP Action 1: ORP will follow up with Ecology on the SHSVD design features that are left to consider.

ORP stated that fabrication of the pulse jet mixers (PJMs) 1 and 2 is still targeted for the March 2016 time frame, and efforts are being made with the vendor to make up the two-month delay.

7.0 HIGH-LEVEL WASTE FACILITY

ORP stated that PT is still under limited construction, and it is mainly focused on civil build-out. ORP added that a significant focus of work in PT is towards full production authorization, which requires resolution of the technical issues and the design and operability (D&O) issues. ORP stated that there are several ongoing studies associated with ventilation, offgas, waste handling, etc. ORP noted that the PDSA update is another key area of work that is under way, and it is one of the requirements for full production authorization to have the PDSA updated in order to have the design and safety basis fully aligned.

ORP reported that the HEPA filter testing at Mississippi State University (MSU) continues, and two of the four new designs have undergone full-scale testing. ORP stated that the results have been positive, and the early indication is that the issues may be solved. ORP noted that more

testing needs to be done, and the less robust filter designs will also be tested. ORP stated that a status on the HEPA filter testing results would be provided to Ecology in late March 2016.

Ecology initiated a discussion regarding the HLW D&O review. Ecology noted that at least one system in HLW was considered to be put on hold by Ecology, and there are concerns regarding other systems. Ecology asked when ORP could provide a status about the systems relative to the D&O review and other technical issues that have been discussed. ORP responded that BNI's studies will be completed later this year, and there would be an indication of the status of the systems at that time. ORP noted that DOE-ORP review and approval will be required to resolve any issues with the systems. ORP stated that one of the main systems that will be impacted by the D&O review is the offgas system. The D&O report indicated that the offgas system is very complex with all of the different equipment, and there may be unnecessary alarms triggered from the operations side. ORP stated that Bechtel is currently working to simplify the offgas system, and there will be discussions with Ecology because some of the solutions that Bechtel has identified is removal of equipment from permitted systems.

ORP indicated that the other studies will have some design changes, but they are not expected to be significant.

ORP reported that the other ventilation study that will be issued identified a major concern about whether there will be sufficient air flow when different doors are opened during operation, and whether the negative pressure requirement will be met. Bechtel conducted a full analysis through their software program, and the DOE-ORP external reviewer conducted an evaluation through other software and had the same results.

8.0 LOW-ACTIVITY WASTE FACILITY

ORP reported that the Wet Electrostatic Precipitator (WESP) electrodes were installed into the assembly of the third process cell, which is currently empty, and the castable refractory has been placed for the first melter lid. ORP added that the subcontractor has completed its work scope in the Annex. The caustic scrubber is anticipated to be shipped in August 2016.

ORP stated that the functional testing on the thermal catalytic oxidizer (TCO) was completed earlier this month, and the TCO is scheduled to be shipped at the end of March 2016. The ammonia skid has to be staged before receipt of the TCO, and then other TCO components will be delivered and staged in the building.

Ecology reiterated its concerns regarding the HLW D&O report being projected onto the LAW D&O report. ORP acknowledged Ecology's concern, and stated that Ecology was to schedule a meeting next week to discuss the D&O report and permitting.

9.0 BALANCE OF FACILITIES

ORP reported that the manufacturing resource planning (MRP) for the rotary screw compressor was issued. The chiller compressor plant needs an additional compressor, and the MRP initiates the procurement of the compressor. The additional compressor is a result of modifications made with DFLAW. ORP stated that the initial Effluent Management Facility (EMF) PDSA, which is under review and comment, will be revised by Bechtel and submitted for approval. ORP noted that approval of the PDSA is needed to start procurement for the new EMF and to prepare the

EMF permit package that will be submitted to Ecology. ORP reported that switchgear testing of building 87 continues in preparation for site energization in the April 2016 time frame, and that represents major progress for Balance of Facilities (BOF). ORP stated that sections of the mud mat placements for the EMF are under way, and the final section of the main mud mat should be completed today. ORP noted that routine meetings are being held with Ecology to discuss permit needs for the EMF.

Ecology asked if the anode installations will be completed by the end of September 2016. ORP responded that it is on track to be completed in September 2016. Ecology referred to the first sentence of the second paragraph on page 20 regarding the engineering activities in progress, and reiterated its request to get a better understanding of the changes in all the BOF systems that will be necessary to blank off in preparation for DFLAW. Ecology stated that the concerns are the number of blanks that will be needed and whether design changes will be needed and how that would affect process flow, etc. ORP responded that there are two major changes that will be needed for BOF, and it will be at the steam plant and the chiller compressor plant. Ecology stated that of particular concern are any changes that will affect the permitted designs or configuration changes.

Ecology Request 1: ORP to follow up with the BOF point of contact regarding Ecology's concerns and request for more information regarding changes to BOF systems to prepare for DFLAW.

ORP noted that Ecology's request may be related to WTP action No. 2, which was closed in December 2015. Ecology agreed that it is somewhat related, but the plans for operating are different from the configuration changes that will affect permit documentation. Ecology added that at this time, a follow-up discussion with the BOF POC would suffice.

10.0 ANALYTICAL LABORATORY

Ecology stated that milestone D-00A-05 has been met for the Analytical Laboratory (LAB) construction substantially complete (see WTP action No. 3).

ORP stated that installation of the temporary test engineers work station continues, which will allow for startup testing of some components and systems until the LAW annex is ready. ORP noted that development of procedures for the WRP analytical methods development process continues. Ecology asked if the development process is far enough along to know whether the planned equipment remains the same or if upgrades will be needed. ORP responded that it was not aware of any identified upgrades, but it would follow up with the LAB point of contact.

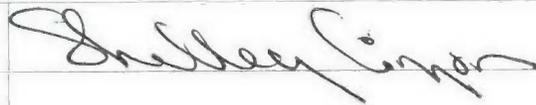
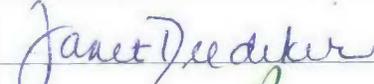
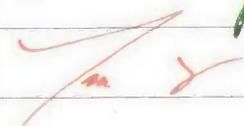
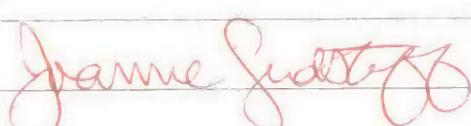
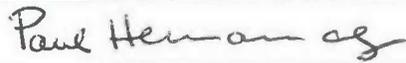
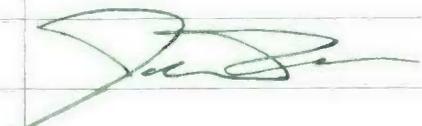
DISTRIBUTION AND ATTENDEES:

W. Abdul	ORP	H6-60
R. E. Beach	ORP	H6-60
S. M. Braswell	Northwind/ORP	H6-60
J. M Bruggeman	ORP	H6-60
K. W. Burnett	ORP	H6-60
C. J. Carter	ORP	H6-60
B. L. Charboneau	ORP	H6-60
B. M. Crock	ORP	H6-60
J. A. Diediker	ORP	H6-60
J. A. Dowell	ORP	H6-60
K. A. Ebert	ORP	H6-60
R. L. Evans	ORP	H6-60
J. F. Grindstaff	ORP	H6-60
C. C. Harrington	ORP	H6-60
P. R. Hernandez	OPR	H6-60
D. R. Hildebrand	RL	A5-11
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
K. Kidder	USACE/ORP	H6-60
D. P. Knight	ORP	H6-60
J. J. Lynch	ORP	H6-60
D. M. MacDonald	ORP	H6-60
B. M. Mauss	ORP	H6-60
E. M. Mattlin	ORP	H6-60
D. L. Noyes	ORP	H6-60
S. H. Pfaff	ORP	H6-60
G. B. Olsen	ORP	H6-60
J. J. Rambo	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
R. J. Valle	ORP	H6-60
K. G. Wade	ORP	H6-60
I. Wheeler	ORP	H6-60
W. R. Wrzesinski	ORP	H6-60
J. D. Young	ORP	H6-60
D. A. Faulk	EPA	A3-46

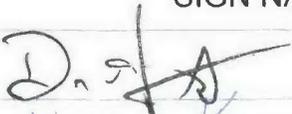
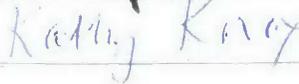
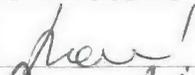
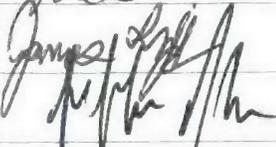
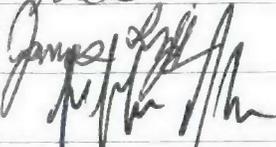
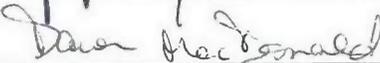
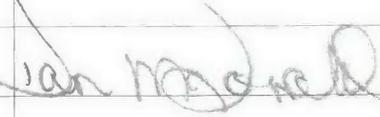
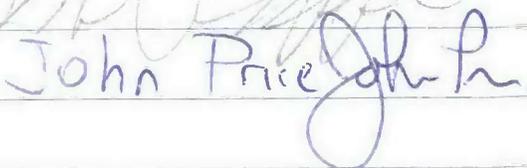
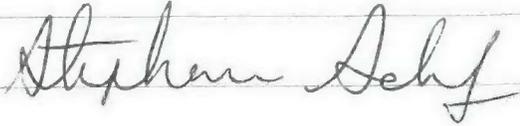
J. Alzheimer	Ecology	H0-57
M. Barnes	Ecology	H0-57
R. K. Biyani	Ecology	H0-57
C. Carlson	Ecology	H0-57
N. Chandron	Ecology	H0-57
T. Z. Gao	Ecology	H0-57
J. Hedges	Ecology	H0-57
M. Jones	Ecology	H0-57
A. Kapell	Ecology	H0-57
S. Lowe	Ecology	H0-57
J. J. Lyon	Ecology	H0-57
J. D. McDonald	Ecology	H0-57
J. Price	Ecology	H0-57
B. Rockette	Ecology	H0-57
M. Skorska	Ecology	H0-57
A. Tortoso	Ecology	H0-57
C. Whalen	Ecology	H0-57
M. Walmsley	Ecology	H0-57
T. Beam	WRPS	H0-55
H. M. Bowers	WRPS	H0-55
J. W. Donnelly	WRPS	H0-55
J. A. Joyner	WRPS	H0-55
J. J. Luke	WRPS	H0-55
R. S. Wiegman	WRPS	H0-56
D. H. Butler	MSA	A3-01
J. M. Colborn	MSA	A3-01
J. L. Copeland	MSA	A3-10
C. P. Noonan	MSA	A3-01
R. E. Piippo	MSA	A3-01
M. J. Turner	MSA	A3-01
J. G. Woolard	MSA	A3-01
S. Cimon	ODOE	

ADMINISTRATIVE RECORD – Heather Childers: H6-08

18 February 2016
 ORP TPA CD Quarterly Meeting

PRINT NAME	SIGN NAME	ORG
Abdul, Wahed		ORP
Alzheimer, Jim		ECY
Barnes, Mike		ECY
Beach, Ryan		ORP
Biyani, Rabindra		ECY
Braswell, Sharon		ORP
Bruggeman, Jeff		ORP
Burnett, Kaylin W		ORP
Carter, Justin		ORP
Chandran, Nitya		ECY
Cimon, Shelly		OR State
Curn, Barry		BNI
Diediker, Janet		ORP
Evans, Rana		ORP
Fletcher, Thomas		ORP
Gao, Tracy		ECY
Grindstaff, Joanne		ORP
Hamilton, James		WRPS
Hedges, Jane	RESIGNED	ECY
Hernandez, Paul		ORP
Higgins, Kathleen		ORP
Huffman, Lori		ORP
Johnson, Jeremy		ORP
Joyner, Jessica		WRPS
Kemp, Christopher		ORP

18 February 2016
 ORP TPA CD Quarterly Meeting

PRINT NAME	SIGN NAME	ORG
Knight, Dan		ORP
Knox, Kathy		Court Reporter
Lowe, Steven		ECY
Luke, Jeffrey		WRPS
Lynch, James		ORP
Lyon, Jeffery		ECY
MacDonald, Dawn		ORP
Martell, John		DOH
Mathey, Jared		ECY
Mattlin, Ellen M	no longer involved in TPA	ORP
Mauss, Billie M		ORP
McDonald, Dan		ECY
McNeel, Kliss R		WRPS
Menard, Nina		ECY
Nichols, Stacy		ECY
Noonan, Carolyn		MSA
Pfaff, Stephen H		ORP
Piippo, Robert E		MSA
Price, John		ECY
Rambo, Jeffrey		ORP
Richardson, John		ECY
Schleif, Stephanie		ECY
Schmidt, John		DOH
Shuen, Jian-Shun		ORP
Skorska, Maria		ECY

February 18, 2016
Office of River Protection Quarterly Milestone Review Meeting
Ecology Offices, Conference Room 3A/B
Chairperson: Jane Hedges (John Price, for)

Topic	Leads	Time
Administrative Items / Milestone Status / ORP Key Documents List	Bryan Trimmerger / Dan McDonald / Jeff Lyon	8:30
System Plan	Kaylin Burnett / Jeff Lyon / Dan McDonald	8:35
Acquisition of New Facilities	Janet Diediker / Jeff Lyon / Dan McDonald	8:40
Supplemental Treatment and Part B Permit Applications	Steve Pfaff / Jeff Lyon / Dan McDonald	8:45
242-A Evaporator Status	Paul Hernandez / Jeff Lyon	8:50
Liquid Effluent Retention Facility (LERF) and 200 Area Effluent Treatment (ETF)	Richard Valle / Stephanie Schleif	8:55
Tank System Update	Jeremy Johnson / Jeff Lyon	9:00
In Tank Characterization and Summary	Billie Mauss / Michael Barnes	9:10
Tank Operations Contract (TOC) Overview	ORP Project Leads / Jeff Lyon	9:15
Single-Shell Tank Closure Program	Ryan Beach / Jeff Lyon	9:20
Single-Shell Retrieval Program (TPA and CD), including: <ul style="list-style-type: none"> • Tank Waste Retrieval Work Plan Status • Tank in Appendix H • Tanks with Individual Milestones 	Jeremy Johnson / Jeff Lyon	9:25
Waste Treatment Plant (WTP) Overall TPA and CD Summary and Milestones Status	Joni Grindstaff / Dan McDonald	9:30
WTP Pretreatment (PT) Facility	Dan Knight / Dan McDonald	9:35
WTP High-Level Waste (HLW) Facility	Wahed Abdul / Dan McDonald	9:40
WTP Low-Activity Waste (LAW) Facility	Jeff Bruggeman / Dan McDonald	9:45
WTP Analytical Laboratory (LAB)	Jason Young / Dan McDonald	9:50
WTP Balance of Facilities (BOF)		

ORP/Ecology TPA and CD Agreements, Issues, and Action Items – February 2016

Agreements:

1. 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).
2. 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. Ecology disagrees with ORP's letter 15-WSC-0027 and the System Plan.

ORP/Ecology TPA and CD Agreements, Issues, and Action Items – February 2016

Tank Farms Action Items							
#	Action ID	Start Date	Action	Action Status	Updates / Needs for Closure	Actionee(s)	Date Closed
1	TF-14-06-02	06/19/14	Schedule an oversight opportunity with ORP and ECY for the Waste Management Area (WMA)-C performance assessment (PA) modeling	Open	Meetings were held on 09/11/14, 10/30/14, and 12/16/14. WMA-C PA workshop held 01/28 and 01/29/15. Additional meetings held 03/10/15, 06/02/15, 06/17/15, 07/09/15, and 09/10/15. This action remains open and will continue status on this task in both ORP/ECY bi-weekly and a requested meeting with Whalen/Lyon on calibrating to the low end of the hydraulic conductivity curve.	Kemp / Beach	
2	TF-14-02-02	02/18/14	ECY would like a schedule/project management plan (if available) for the closure of WMA C and milestone M-045-83.	Open	Draft closure schedule provided to ECY on 1/12/2016.	Beach	
3	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	It was noted in the 9-8-15 TPA Milestone meeting that Ecology provided a list of team members, and that this action would be kept open as a reminder to keep the list of team members up to date.	Lyon / McDonald	

ORP/Ecology TPA and CD Agreements, Issues, and Action Items – February 2016

Tank Farms Action Items							
#	Action ID	Start Date	Action	Action Status	Updates / Needs for Closure	Actionee(s)	Date Closed
4	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 (see TF-14-06-02) and other options for M-045-82.	Open	ORP and ECY to schedule meeting in early June to discuss options for M-045-82. ECY has a draft TPA change package and commitment from Price/Kemp to meet between TPA PMs in June when Jeff Lyon returns from leave/training. ORP and ECY met on 06/18/15 to discuss draft change control form M-45-15-03 that proposed modifying milestone M-045-82. ORP delivered signed change control form M-45-15-03 to ECY on 06/30/15.	Beach / Price	
5	TF-15-03-05	03/18/15	ECY would like to obtain technical white papers supporting LAWPS design.	Closed	Obsolete Information	Pfaff/ Diediker	1-21-16
6	TF-15-06-01	06/15/15	ECY would like to be included in future Low-Activity Waste Pretreatment System (LAWPS) work discussions and meetings.	Open		Pfaff/ Diediker	

ORP/Ecology TPA and CD Agreements, Issues, and Action Items – February 2016

Tank Farms Action Items							
#	Action ID	Start Date	Action	Action Status	Updates / Needs for Closure	Actionee(s)	Date Closed
7	TF-15-07-03	07/16/15	ECY requests the information ORP is using to select retrieval technologies. This request stems from Ecology's disagreement with the statement in letter TF-15-058 that the current body of knowledge compiled in the Best Basis Inventory is sufficient to plan retrieval actions to develop Tank Waste Retrieval Work Plans.	Open		Beach	
8	TF-15-10-01	10/15/15	ECY requested a discussion regarding ETF tanks 109 and 117	Closed	Meeting held with Ecology. included ORP Tank Farms Program Division,(TPD) and ORP Environmental Compliance.(ECD) It was agreed to close the item following the meeting.	Richard Valle	1-26-16
9	TF-15-10-02	10/15/15	ECY requests ORP provide information regarding plans and concepts for LERF/ETF to be ready to accommodate Direct Feed Low Activity Waste (DFLAW).	Open		Wendell Wrzesinski	
10	TF-15-10-03	10-15-15	ECY requests ORP provide information regarding the LERF basin covers, including the target and plan to reduce inventory in the basins.	Open		Richard Valle	
11	TF-16-01-01	1-21-16	ECY requests DOE provide current LAWPS technical design media to ECY	Open		Steve Pfaff	

ORP/Ecology TPA and CD Agreements, Issues, and Action Items – February 2016

Tank Farms Action Items							
#	Action ID	Start Date	Action	Action Status	Updates / Needs for Closure	Actionee(s)	Date Closed
12	TF-16-01-02	1-21-16	ECY would like DFLAW program interface information to include mass & energy balance and process flow information.	Open		Wendell Wrzesinski	
13	TF-16-01-03	1-21-16	ECY would like more information on the contamination issue for AX-104 Riser 9D	Open		Jeremey Johnson	

ORP/Ecology TPA and CD Agreements, Issues, and Action Items – February 2016

WTP Action Items							
#	Action ID	Start Date	Action	Action Status	Updates / Needs for Closure	Actionee(s)	Date Closed
1	WTP-14-10-01	10/23/14	ECY requests information on DOE's plans and timeline for the Low Activity Waste (LAW) (replacement) melter assembly building.	Open	An engineering study conducted in 2008 will be provided to Ecology. Additional information on replacements plans will also be provided to Ecology.	Wendell Wrzesinski	
2	WTP-14-10-02	10/23/14	ECY would like to know what the plans are for operating BOF in support of DFLAW and then transitioning into full WTP operations.	Closed	It was agreed that ORP and Ecology would meet to develop an outline of the information that is needed to close this action.	Jason Young	12-16-15
3	WTP-14-10-03	10/23/14	ECY and ORP need to discuss how to document Analytical Laboratory (LAB) substantially complete milestone after completion of radioactive liquid waste disposal (RLD) vessel repairs.	Open	This issue is impacted by the ongoing CD judicial process. ORP provided Ecology with the requested information concerning repairs to the RLD vessels. Ecology will internally discuss what is needed to close this action.	Jason Young	
4	WTP-14-10-04	10/23/14	ECY requests a status update to include a schedule on the 8 technical team issues for High Level Waste (HLW) and Pretreatment (PT).	Open	Completed for HLW. This issue is impacted by the ongoing CD judicial process.	Dan Knight	

ORP/Ecology TPA and CD Agreements, Issues, and Action Items – February 2016

WTP Action Items							
#	Action ID	Start Date	Action	Action Status	Updates / Needs for Closure	Actionee(s)	Date Closed
5	WTP-14-10-05	10/23/14	ECY requests on update on the details of the 2-year work plan for HLW and PT.	Open	Completed for HLW. This issue is impacted by the ongoing CD judicial process.	Dan Knight	
6	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		Joni Grindstaff	
7	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	ORP will follow-up with Ecology to further define and clarify this action so that it can be address and closed. This issue is impacted by the ongoing CD judicial process.	Joni Grindstaff	
8	WTP-15-01-01	1/22/15	ECY requests a presentation on standardized high-solids vessel design (SHSVD) to include impacts and optimization in planning area 2, 3, and 4	Open	Impacts will be better understood once the design studies are issued.	Dan Knight	
9	WTP-15-01-03	1/22/15	ECY requests a technical update on the LAB RLD vessels	Closed	ORP suggested that this action be closed, and that any additional discuss on the RLD vessels could be moved to Action 3. Ecology will internally discuss the suggestion and provide an update at the next meeting.	Jason Young	12-16-15
10	WTP-15-06-01	06/15/15	ORP took an action to provide ECY a copy of the corrosion simulant basis document.	Open		Dan Knight	

ORP/Ecology TPA and CD Agreements, Issues, and Action Items – February 2016

WTP Action Items							
#	Action ID	Start Date	Action	Action Status	Updates / Needs for Closure	Actionee(s)	Date Closed
11	WTP-15-06-02	06/15/15	ECY would like to understand how the bounding conditions for the HEPA filters were identified.	Open	Results of the HEPA filter analysis are expected in the March 2016 timeframe.	Wahed Abdul	

FINAL

Office of River Protection

Tri-Party Agreement
Monthly Summary Report
February 2016



Tri-Party Agreement

**Office of River Protection (ORP)
Tri-Party Agreement (TPA) Milestone Review
February 2016 (Monthly Summary Report)**

Project Earned Value Management System reflects December 2015 information

Page	Topic	Leads
2	Administrative Items/Milestone Status	Bryan Trimberger/Dan McDonald/Jeff Lyon
4	System Plan	Kaylin Burnett/Jeff Lyon/Dan McDonald
5	Acquisition of New Facilities	Janet Diediker/Jeff Lyon/Dan McDonald
6	Supplemental Treatment and Part B Permit Applications	Steve Pfaff/Jeff Lyon/Dan McDonald
8	242-A Evaporator Status	Paul Hernandez/Jeff Lyon
9	Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility	Richard Valle/ Stephanie Schleif
10	Tank System Update	Jeremy Johnson/Jeff Lyon
10	Single-Shell Tank Integrity Assurance	Jeremy Johnson/ Jim Alzheimer
12	In Tank Characterization and Summary	Billie Mauss/Michael Barnes
14	Tank Operations Contract Overview	ORP TPA Program Managers/Jeff Lyon
24	Single-Shell Tank Closure Program	Ryan Beach/Jeff Lyon
27	Single-Shell Tank Retrieval Program	Jeremy Johnson/ Jeff Lyon
28	Tank Waste Retrieval Work Plan Status	Jeremy Johnson /Jeff Lyon
29	Tank in Appendix H, "Status - Single Shell Waste Retrieval Criteria"	Jeremy Johnson /Jeff Lyon
30	Tank Retrievals with Individual Milestones	Jeremy Johnson/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	Joni Grindstaff/Dan McDonald

Administrative Items/Milestone Status
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Milestone	Title	Due Date	Completion Date	Status
Fiscal Year 2015				
M-062-45-T01	Comp. Neg's 6-Mo After Last Issuance of System Plan	04/30/2015		In Dispute
M-062-45-ZZ	Negotiate a One Time Supplemental Treatment Selection	04/30/2015		In Dispute
M-062-45-ZZ-A	Convert M-062-31-T01 Thru M-062-34-T01 to Interim Milestones	04/30/2015		In Dispute
M-045-92	Barrier 3 Design/Monitoring Approval From Ecology	06/30/2015		In Dispute
M-045-82	Submit Comp. Permit Modification Request for Tiers 1,2,3	09/30/2015		In Dispute
M-045-91E1	Provide SST Farms Dome Deflection Surveys Every Two Years.	09/30/2015	9/21/15	Complete
Fiscal Year 2016				
M-045-92N	Construct Barriers 1 and 2 in 241-SX Farm	10/31/2015		In Dispute
M-062-01AF	Submit Semi-Annual Project Compliance Report	01/31/2016	01/29/2016	Complete
M-047-07	CD-1 for Secondary Liquid Waste Treatment and CR for CD-2 to Ecology	03/31/2016		In Dispute
M-090-13	CD-1 for Interim Hanford Storage Project and CR for CD-2 to Ecology	03/31/2016		In Dispute
M-062-31-T01	Comp. Final Design & Submit RCRA Part B Permit Mod Request for Enhanced WTP & Supplemental Treatment	04/30/2016		In Dispute
M-045-92Q	Submit Barrier 4 Design/Monitoring Plan	06/30/2016		In Dispute
M-062-01AG	Submit Semi-Annual Project Compliance Report	07/31/2016		On Schedule
M-045-56L	Ecology And DOE Agree, At A Minimum, To Meet Yearly (By July)	07/31/2016		On Schedule
Fiscal Year 2017				
M-045-92P	Barrier 3 Construction Complete	10/31/2016		In Dispute
M-062-40E	Select a Minimum of Three Scenario's	10/31/2016		On Schedule
M-045-61A	Submit to Ecology a primary doc. Phase 2 CMS and Rev. O update to the RFI Report for WMA C	12/31/2016		On Schedule
M-045-62	Phase 2 Corrective Measures Implementation Work Plan For WMA-C	Six months after CMS approval (M-045-61A)		On Schedule
M-045-84	Comp Neg's of HFFACO Interim Milestones for Closure of 2 nd SST WMA	01/31/2017		On Schedule

Milestone	Title	Due Date	Completion Date	Status
M-062-01AH	Submit Semi-Annual Project Compliance Report	01/31/2017		On Schedule
M-062-01AI	Submit Semi-Annual Project Compliance Report	07/31/2017		On Schedule
M-045-91E2	Provide SST Farms Dome Deflection Surveys' Every Two Years	09/30/2017		On Schedule

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

CMD = current measuring device.

CR = change request.

DOE = U.S. Department of Energy.

Ecology = Washington State Department of Ecology

HFFACO = Hanford Federal Facility Agreement and Consent Order.

RCRA = Resource Conservation and Recovery Act.

RFI = RCRA Facility Investigation.

SST = single-shell tank.

TBD = to be determined.

WTP = Waste Treatment and Immobilization Plant

WMA-C = Waste Management Area C.

System Plan

Significant Past Accomplishments:

1. On October 24, 2013, Washington State Department of Ecology (Ecology) and U.S. Department of Energy (DOE), Office of River Protection (ORP) signed the Tri-Party Agreement (TPA) Change Control Form M-62-13-02, moving out the due date for this embedded milestone from October 31, 2013 to December 15, 2013, for selection of three, or more, scenarios to be modeled in the ORP-11242, *River Protection Project System Plan*, Rev. 7 (System Plan 7).
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, "Completion of Hanford Federal Facility Agreement and Consent Order Milestone M-062-40C, to select a Minimum of Three Scenarios and Partial Completion of Milestone M-062-40," 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, ORP transmitted a letter (14-TPD-0003, "Contract No. DE-AC27-08RV14800 – Approval to use Washington State Department of Ecology's Appendix B, "Key Assumptions and Success Criteria" for the ORP-11242, *River Protection Project System Plan*, Rev. 7") to WRPS in response to letter WRPS-1400313, "One System – Washington River Protection Solutions LLC Transmits to the U.S. Department of Energy, Office of River Protection for Approval, Appendix B Key Assumptions and Success Criteria for the River Protection Project System Plan, Revision 7, in Support of Contract Deliverable C.2.3.1 -1, River Protection Project System Plan," to approve the use of Ecology's Appendix B, "Key Assumptions and Success Criteria," for System Plan 7.
5. On February 13, 2014 Ecology presented the five selected scenarios to the Hanford Advisory Board Tank Waste Committee.
6. Ecology, ORP, and WRPS reviewed and provided comments for Sections 1.0 and 2.0 of System Plan 7 during the week of February 17, 2014.
7. Ecology, ORP and WRPS reviewed and provided comments for Section 3.0 of the System Plan 7 during the week of March 21, 2014.
8. Ecology, ORP and WRPS reviewed and provided comments for Appendix C, "Modeling Tools," of the System Plan 7 during the week of April 1, 2014.
9. During the week of April 28, 2014, WRPS and 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 ORP.
11. System Plan 7 was reviewed, all comments resolved, and comments incorporated into the document.

12. On October 31, 2014, ORP transmitted System Plan 7 to Ecology.
13. ORP received Ecology's January 14, 2015, transmitted letter 15-NWP-004, "Department of Ecology Review of the *River Protection Project System Plan*, ORP-11242, Revision 7," regarding Ecology's review of System Plan 7.
14. ORP met with Ecology at the Tank Farms TPA and Consent Decree (CD) monthly status meeting on February 25, 2015.
15. ORP transmitted Letter 15-WSC-0027, "Washington State Department of Ecology Review of ORP-11242, *River Protection System Plan, Rev. 7*, 15-NWP-004, January 14, 2015," ORP's response to Ecology's letter 15-NWP-004 to Ecology on June 2, 2015. ORP's letter provided clarification and several attachments of additional information requested in Ecology's January 14, 2015, letter.

Significant Planned Actions in the Next Six Months:

- Scenario selection discussions will be conducted to support M-062-40E due October 31, 2016

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: To be missed. Change control form M-90-15-01 was submitted by ORP to Ecology for approval on December 30, 2015.

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: To be missed. Change control form M-47-15-01 was submitted by ORP to Ecology for approval on December 30, 2015.

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

Significant Past Accomplishments: None.

Significant Planned Actions in the Next Six Months: None.

Issues: None.

Supplemental Treatment and Part B Permit Applications

M-062-45ZZ (designation for M-062-45 item 3), Negotiate a one-time supplemental treatment selection, Due: April 30, 2015, Status: In dispute.

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

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

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

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

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: In Dispute.

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: In dispute.

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, "Documentation of U.S. Department of Energy, Office of River Protection and Washington State Department of Ecology Agreement that the Office of River Protection will not Submit A One-Time Hanford Tank Waste Supplemental Treatment Technologies Report," 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, "Acknowledgement that the U.S. Department of Energy, Office of River Protection Will Not Submit a One-Time Supplemental Treatment Technologies Report," on May 29, 2014. ORP letter 14-TF-0088, "Hanford Federal Facilities Agreement and Consent Order Class II Change Request for Deletion of Tri-Party Agreement Milestone M-062-40ZZ, One-Time Hanford Tank Waste Supplemental Treatment Technologies Report," 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 Six Months: None.

Issues:

On January 30, 2015, ORP provided Ecology Change Control Form M-62-14-02, which proposed adding language under TPA Milestone M-062-45 to defer negotiations required under M-062-45. Ecology did not respond with the 14-day review period that ended February 13, 2015 which is deemed disapproval in accordance with the TPA. In letter 15-TF-0014, "Initiation of Dispute Resolution Regarding Disapproval of Hanford Federal Facility Agreement and Consent Order Change Control Form M-62-14-02," dated February 20, 2015, ORP initiated a dispute resolution. Ecology provided a justification for their disapproval on March 12, 2015 via letter 15-NWP-036, "Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Change Package, Change Number M-62-14-02, dated 01/30/2015." Ecology and ORP signed an extension of the dispute resolution period at the TPA project manager level until February 18, 2016. The extension is available in the TPA Administrative Record at <http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=1509230319>

242-A Evaporator Status

(previously reported under Milestone M-48, which has been closed out)

The 242-A Evaporator campaign strategy for fiscal year (FY) 2015 through third quarter of FY 2016 depicted in the following table:

Fiscal Year	Campaign No.	Feed Source	Slurry Tank	Comments
FY 2015	EC-01	AP-103 AP-104	AP-107	Campaign and flush activities completed on June 21, 2015.
FY 2015	EC-02	AZ-102	AP-103	Completed July 21, 2015.
FY 2015	EC-03	AZ-102	AP-103	Completed September 25, 2015.
FY 2016	EC-04	AP-104	AP-103	Estimated to begin third quarter FY 2016.
FY 2016	EC-05	AP-104	AP-103	Estimated to begin third quarter FY 2016.
FY 2016	EC-06	AY-101	AP-104	Estimated to begin fourth quarter FY 2016.

FY = fiscal year.

Significant Planned Actions in the Next Six Months:

- Future campaign and outage scheduling
- 242-A Evaporator instrument calibrations and preventive maintenance

Issues: None.

Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility

Status:

The Liquid Effluent Retention Facility (LERF) liquid levels, inventory, and received waste is shown in the table below for the time period of January 1 – 31, 2016.

Note: Volumes in this table are estimated. Tanker shipment volumes are estimated by multiplying the number of shipments by the capacity of the tanker being used.

	242AL-42 (Basin 42)	242AL-43 (Basin 43)	242AL-44 (Basin 44)
Volume (as of 01/31/16)	~4.88 Mgal	~6.64 Mgal	~6.57 Mgal
AZ-301 Tanker Shipments	-	-	-
MWBT-31 and 34 Leachate	-	-	~28,000 gal
Perched Water Tanker Shipments	-	-	-
ERDF Leachate Transfers	-	162,000 gal	-
Other (325 Building Totes)	-	~2,300 gal	-

ERDF Environmental Restoration Disposal Facility
Gal gallon

Mgal million gallons
MWBT mixed waste burial trench

Significant Planned Actions in the Next Six Months:

- Staff training, component and system testing, and readiness activities will be performed before restart approval can be granted.
- Berm special protective coating of specific areas at the Effluent Treatment Facility (ETF) and LERF are to be repaired in the following months.
- Class 1 Modifications package submitted by March 30, 2016.

Issues: None.

Tank System Update

Significant Planned Actions in FY 2016:

Double Shell Tank (DST) Integrity

- Enhanced annulus video inspection:
 - 241-AN-101
 - 241-AN-103
 - 241-AN-104
 - 241-AN-105
 - 241-AN-106
 - 241-AW-103
 - 241-AW-106
 - 241-SY-101
 - 241-SY-102
 - 241-SY-103.
- Ultrasonic testing (UT) inspections (two risers for primary wall/welds, one riser for secondary floor):
 - 241-AN-105
 - 241-AW-103.
- Continuing bi-weekly inspections of AY-102 waste accumulation site
- Continuing bi-monthly comprehensive inspection of AY-102 annulus
- Revise and update RPP-7574, *Double-Shell Tank Integrity Project Plan*
- Release DST independent qualified registered professional engineer (IQRPE) integrity assessment report per WAC 173-303-640(2).

Single Shell Tanks (SST) Integrity

- In-tank video inspections:
 - 241-T-107
 - 241-T-110
 - 241-TX-103
 - 241-TX-111
 - 241-TX-113
 - 241-TX-116
 - 241-B-101
 - 241-B-201
 - 241-BY-105
 - 241-U-102
 - 241-U-105
 - 241-U-107.
- Intrusions mitigation (M45-56):
 - Complete 241-T-111
 - Subsequent tank to be determined.

Current Status

- The blanket master agreement (BMA) for nondestructive examination services is being placed.

Single-Shell Tank Integrity Assurance

M-045-91I, Provide to Ecology an Independent, Qualified, Registered Professional Engineer (IQRPE) certification of single-shell tanks (SST) 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:

Completion of M-045-91E1 on September 21, 2015 with issuance of RPP-RPT-55202, *Dome Survey Report for Hanford Single-Shell Tanks, Rev 1*. The report was discussed with Ecology on October 13, 2015, and both parties expressed interest in continuing this work but not requiring formal transmittal as a TPA milestone requirement.

Significant Planned Actions in the Next Six Months:

Continue planning for the SST integrity assessment by an IQRPE (M-045-91I).

Issues: None.

In Tank Characterization and Summary

For the period from January 1 through January 31, 2016:

Accomplishments:

- Completed RPP-RPT-46616, *Derivation of Best-Basis Inventory for Tank 241-C-104 as of January 1, 2016*, Rev 7.
- Completed RPP-RPT-58699, *Derivation of Best-Basis Inventory for Tank 241-TX-108 as of October 1, 2015*, Rev 0.
- Completed RPP-RPT-58655, *Derivation of Best-Basis Inventory for Tank 241-BX-111 as of January 1, 2016*, Rev 1.
- Completed RPP-RPT-45147, *Derivation of Best-Basis Inventory for Tank 241-C-108 as of January 1, 2016*, Rev 5.
- Completed RPP-PLAN-58022, *Sampling and Analysis Plan for 242-A Evaporator Cooling Water and Steam Condensate*, Rev 2.
- Completed HNF-EP-0182, *Waste Tank Summary Report for Month Ending November 30, 2015*, Rev 335.
- RPP-RPT-59131, *Final Report for Tank 241-AN-106 Grab Samples in Support of Corrosion Mitigation and Waste Compatibility*, Rev 0, was released.
- RPP-RPT-59055, *Initial Baseline Results for 241-AY/AZ Stack Chemical Emissions*, Rev. 0, was released.
- RPP-RPT-59018, *Boildown Test Final Report: 242-A Evaporator Campaign EC-02*, Rev 0, was released.
- RPP-RPT-59115, *Final Report for Tank 241-C-105 Solid Waste Samples in Support of Retrieval Operations*, Rev 0, was released.
- Completed 241-AY-102 Leak Detection Pit (LDP) grab sampling January 11, 2016. Four samples were received at the lab.
- Completed 241-C-111 hard heel retrieval in-process sampling on January 21, 2016, and on January 26, 2016. A total of four samples were received at the lab.
- Completed 241-AN-101 organic surface sampling on January 21, 2016, and January 22, 2016. Two samples were received at the lab.
- 241-AP-104 grab sampling December 29, 2015. Thirteen samples were received at the lab.

Planned Action within the Next Six Months:

Tank sampling:

- Tank 241-C-111 in-process hard heel retrieval grab sampling is planned for January and February 2016.
- Tank 241-C-102 extended reach sluicing system (ERSS) closure sampling at Riser 03 is planned to begin February 2016.
- Tank 241-SY-101 grab sampling is planned for March 2016.

- Tank 241-AN-101 grab sampling at completion of C-111 hard heel retrieval is planned for March 2016.
- Tank 241-AY-101 grab sampling to support Evaporator campaign EC-06 is planned for March 2016.
- Tank 241-C-102 extended reach sluicing system (ERSS) closure sampling at Riser 06 is planned to begin March 2016.
- Tank 241-AP-107 core sampling is planned to begin April 2016.
- Tank 241-C-111 Off-Riser Sampling System (ORSS) closure sampling is planned for June 2016.
- Tank 241-AP-102 grab sampling in support of AY-102 retrieval is planned for June 2016.
- Tank 241-AW-103 grab sampling is planned for July 2016.

Best-Basis Inventory (BBI) updates:

BBI updates for the following tanks were completed in January 2016:

- 241-BX-111
- 241-C-104
- 241-C-108
- 241-TX-108

BBI updates for the following tanks currently are planned to be completed in February 2016:

- 241-AN-106
- 241-BY-101
- 241-BY-102
- 241-C-102
- 241-C-109
- 241-C-110
- 241-SY-102

Data Quality Objectives (DQO):

- RPP-8532, *Double-Shell Tanks Chemistry Control Data Quality Objectives*, Rev 15, is in-process to identify additional analyses for corrosion mitigation and to simplify quality control parameters is planned to be released in February 2016.

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 (TOC) for monthly performance reporting. The earned value analysis is not intended to be a measurement of performance against existing TPA milestones.

As of December 31, 2015 WRPS Tank Operations Contract has worked 455,148 hours or 36 days without a Lost Time Workday Injury, and has worked 455,148 hours or 36 days since the last Recordable case.

November-15										
	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC	EAC	VAC
CM	42,662	38,998	41,461	(3,663)	(2,463)	0.91	0.94			
FYTD	74,801	72,376	73,649	(2,425)	(1,274)	0.97	0.98	556,355		
CTD	2,925,641	2,903,628	2,898,327	(22,013)	5,301	0.99	1.00	3,407,195	3,427,116	(19,921)

ACWP = actual cost of work performed.
 BAC = budget at completion.
 BCWP = budgeted cost of work performed.
 BCWS = budgeted cost of work scheduled.
 CM = current month
 CPI = cost performance index.
 CTD = cumulative to date

CV = cost variance.
 EAC = estimate at completion.
 FYTD = fiscal year to date
 SPI = schedule performance index.
 SV = schedule variance.
 VAC = variance at completion.

EXC-01a: Fiscal Year Cost and Schedule Report

Earned Value Data: Fiscal Year 2016

December-15

Tank Farms ORP-0014

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	\$31,937	\$33,377	\$32,188	1.05	1.04	\$31,937	\$33,377	\$32,188	1.05	1.04
Nov 2015	\$42,325	\$38,998	\$41,461	0.92	0.94	\$74,262	\$72,376	\$73,649	0.97	0.98
Dec 2015	\$36,530	\$35,614	\$37,416	0.97	0.95	\$110,792	\$107,990	\$111,065	0.97	0.97
Jan 2016	\$46,100					\$156,892				
Feb 2016	\$44,100					\$200,992				
Mar 2016	\$53,955					\$254,947				
Apr 2016	\$44,598					\$299,545				
May 2016	\$46,951					\$346,496				
Jun 2016	\$43,944					\$390,440				
Jul 2016	\$51,353					\$441,793				
Aug 2016	\$42,223					\$484,017				
Sep 2016	\$69,099					\$553,115				
CTD	\$2,961,632	\$2,939,242	\$2,935,743	0.99	1.00					

ACWP = actual cost of work performed.
 BCWP = budgeted cost of work performed.
 BCWS = budgeted cost of work scheduled.
 CPI = cost performance index.

CTD = contract to date
 EVMS = Earned Value Management System.
 FY = fiscal year.
 SPI = schedule performance index

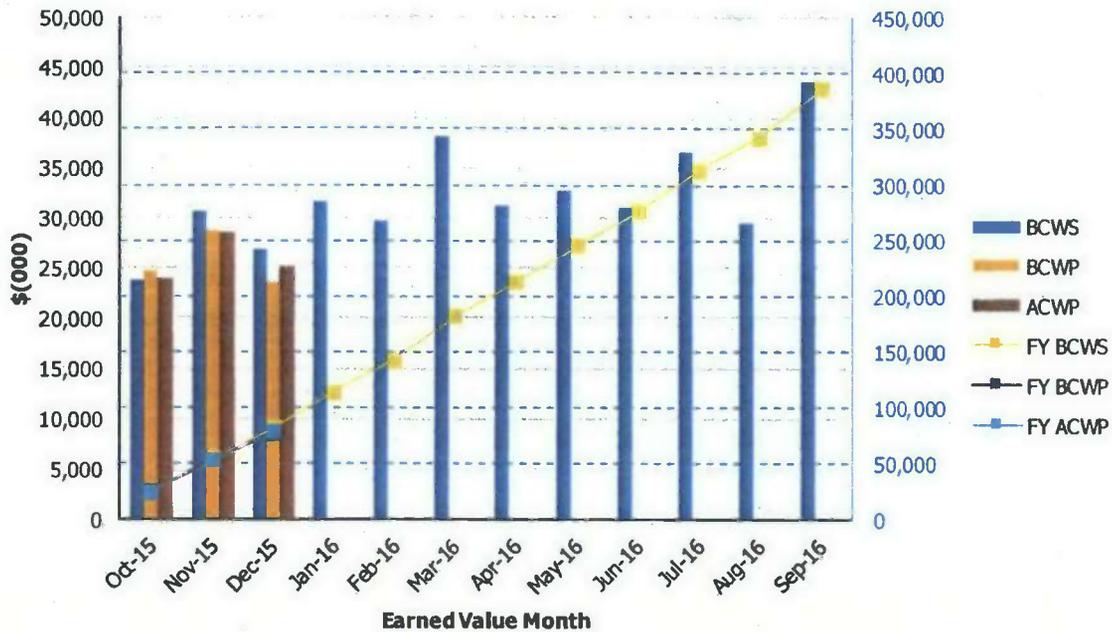
EXC-01a: Fiscal Year Cost and Schedule Report

Earned Value Data: Fiscal Year 2016

December-15

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

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	\$23,768	\$24,839	\$24,025	1.05	1.03	\$23,768	\$24,839	\$24,025	1.05	1.03
Nov 2015	\$30,658	\$28,752	\$28,562	0.94	1.01	\$54,426	\$53,592	\$52,587	0.98	1.02
Dec 2015	\$26,911	\$23,637	\$25,173	0.88	0.94	\$81,336	\$77,229	\$77,760	0.95	0.99
Jan 2016	\$31,677					\$113,013				
Feb 2016	\$29,648					\$142,661				
Mar 2016	\$38,070					\$180,732				
Apr 2016	\$31,215					\$211,946				
May 2016	\$32,797					\$244,743				
Jun 2016	\$31,068					\$275,811				
Jul 2016	\$36,625					\$312,436				
Aug 2016	\$29,503					\$341,938				
Sep 2016	\$43,586					\$385,524				
CTD	\$1,973,220	\$1,959,442	\$1,951,589	0.99	1.00					

ACWP = actual cost of work performed.
 BCWP = budgeted cost of work performed.
 BCWS = budgeted cost of work scheduled.
 CPI = cost performance index.

CTD = contract to date
 EVMS = Earned Value Management System.
 FY = fiscal year.
 SPI = schedule performance index

Base Operations and Tank Farm Projects

The current month unfavorable Schedule Variance (SV) of **(\$3,274K)** is due to:

- AW-106 Pump and Jumper Removal and Installation - Schedule delays in installing both the pump and jumper for AW-106. Inability to flush the currently plugged pump resulted in a recovery plan, risk mitigation strategy, that requires fabrication of a clam shell device that will puncture holes lengthwise down the pump shaft in order to unclog the pump
- AP Tank Farm Ventilation Upgrade (Exhausters) - Delay due to issues with fabrication of requisite equipment/components to continue the field work onsite. Impacts include delays in excavation and concrete pouring, electrical installation & drain system fabrication.
- Tank Vapor Head Space & Stack Sampling - Additional time needed for Engineering and work package planning and final review of Tank Head Space Sampling and Analysis Plan Documentation. A recent shift in sampling strategy being utilized to sample head space at varying depths for FY 2016 Head Space Sampling.

The current month unfavorable Cost Variance (CV) of **(\$1,536K)** is due to:

- Additional costs have been contributed to construction crew's continuing to accelerate schedule recovery by working overtime, weekend shifts and allocating more resources to critical path construction activities. Crews also spent additional time resolving field challenges (re-routing hose, re-installation AY-02D drain, and re-routing portions of AP-102 electrical conduit/wiring).

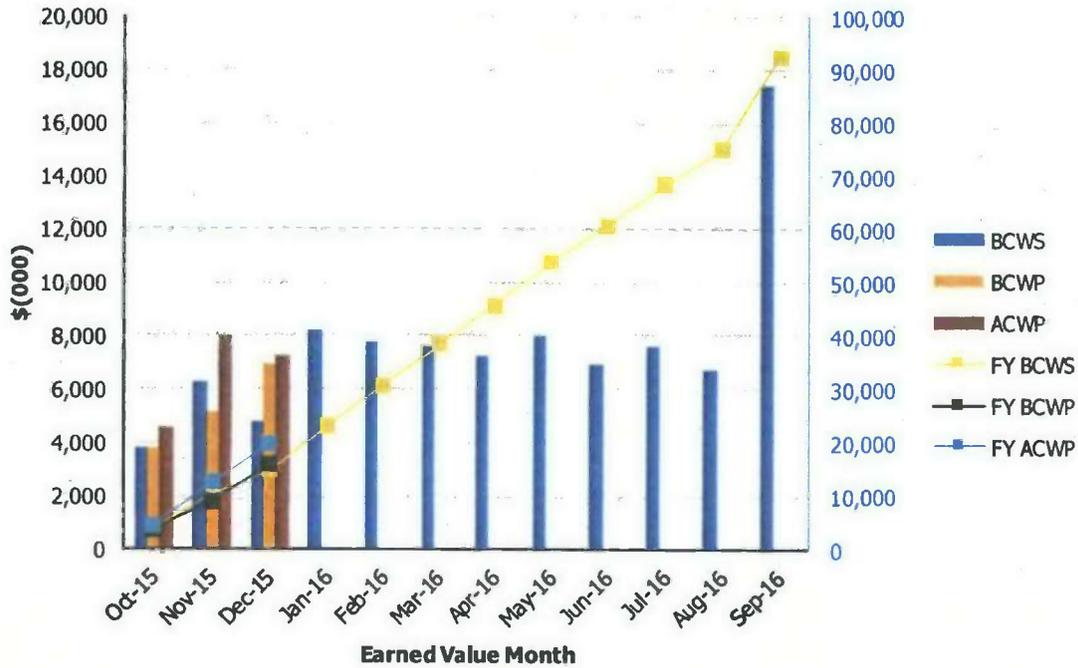
EXC-01a: Fiscal Year Cost and Schedule Report

Earned Value Data: Fiscal Year 2016

December-15

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 2015	\$3,770	\$3,814	\$4,560	1.01	0.84	\$3,770	\$3,814	\$4,560	1.01	0.84
Nov 2015	\$6,282	\$5,131	\$8,006	0.82	0.64	\$10,052	\$8,946	\$12,566	0.89	0.71
Dec 2015	\$4,769	\$6,970	\$7,255	1.46	0.96	\$14,821	\$15,915	\$19,821	1.07	0.80
Jan 2016	\$8,231					\$23,052				
Feb 2016	\$7,740					\$30,791				
Mar 2016	\$7,610					\$38,402				
Apr 2016	\$7,251					\$45,652				
May 2016	\$8,010					\$53,662				
Jun 2016	\$6,951					\$60,613				
Jul 2016	\$7,642					\$68,255				
Aug 2016	\$6,735					\$74,989				
Sep 2016	\$17,430					\$92,419				
CTD	\$607,298	\$601,142	\$629,793	0.99	0.95					

ACWP = actual cost of work performed.
 BCWP = budgeted cost of work performed.
 BCWS = budgeted cost of work scheduled.
 CPI = cost performance index.

CTD = contract to date
 EVMS = Earned Value Management System.
 FY = fiscal year.
 SPI = schedule performance index

Retrieve and Close Single Shell Tanks

The current month favorable schedule variance (SV) of \$2,201K is due to:

- Work planners completed previously overdue work packages for AX Farm regarding at-tank installation and ventilation installation for the refurbished exhausters. In addition, construction crews completed all remaining FY 2015 carryover field activities in AX Farm during December.

The current month unfavorable cost variance (CV) of (\$285K) is due to:

- Retrieval operations at Tank 241-C-111 resumed on December 11th (after a brief pause due to a hydraulic leak near the hydraulic pump unit) and crews were able to perform retrieval activities on 10 out of the 28 days. The project team is required to maintain the retrieval crews during non-retrieval operations (suspension/work stoppages) to monitor the tank and retrieval equipment. Performance is based on retrieval operations (gallons retrieved).

EXC-01a: Fiscal Year Cost and Schedule Report

Earned Value Data: Fiscal Year 2016

December-15

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

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	\$2,434	\$3,210	\$1,876	1.32	1.71	\$2,434	\$3,210	\$1,876	1.32	1.71
Nov 2015	\$2,987	\$3,446	\$3,379	1.15	1.02	\$5,421	\$6,656	\$5,255	1.23	1.27
Dec 2015	\$2,714	\$3,193	\$2,743	1.18	1.16	\$8,134	\$9,849	\$7,998	1.21	1.23
Jan 2016	\$3,193					\$11,328				
Feb 2016	\$3,600					\$14,928				
Mar 2016	\$4,693					\$19,621				
Apr 2016	\$3,660					\$23,281				
May 2016	\$3,795					\$27,076				
Jun 2016	\$3,491					\$30,566				
Jul 2016	\$4,714					\$35,281				
Aug 2016	\$4,055					\$39,336				
Sep 2016	\$5,707					\$45,042				

CTD \$336,806 \$336,125 \$313,081 1.00 1.07

ACWP = actual cost of work performed.
 BCWP = budgeted cost of work performed.
 BCWS = budgeted cost of work scheduled.
 CPI = cost performance index.

CTD = contract to date
 EVMS = Earned Value Management System.
 FY = fiscal year.
 SPI = schedule performance index

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

The current month favorable schedule variance (SV) of \$480k is due to:

- Completion of scope which was not completed as planned in FY 2015 and has been carried over into FY 2016. Also Pacific Northwest National Laboratory (PNNL) has been able to begin the upfront planning in support of the FY 2016 scope, which was originally planned to start at the beginning of January, 2016.

The current month favorable cost variance (CV) of \$451k is due to:

- Performance related to immobilized low activity waste (ILAW) glass testing which experienced labor usage efficiencies in subcontract resources and labor resources.
- PNNL contracted to support Secondary Waste Form Development in FY 2015 experienced resource usage and price efficiencies.

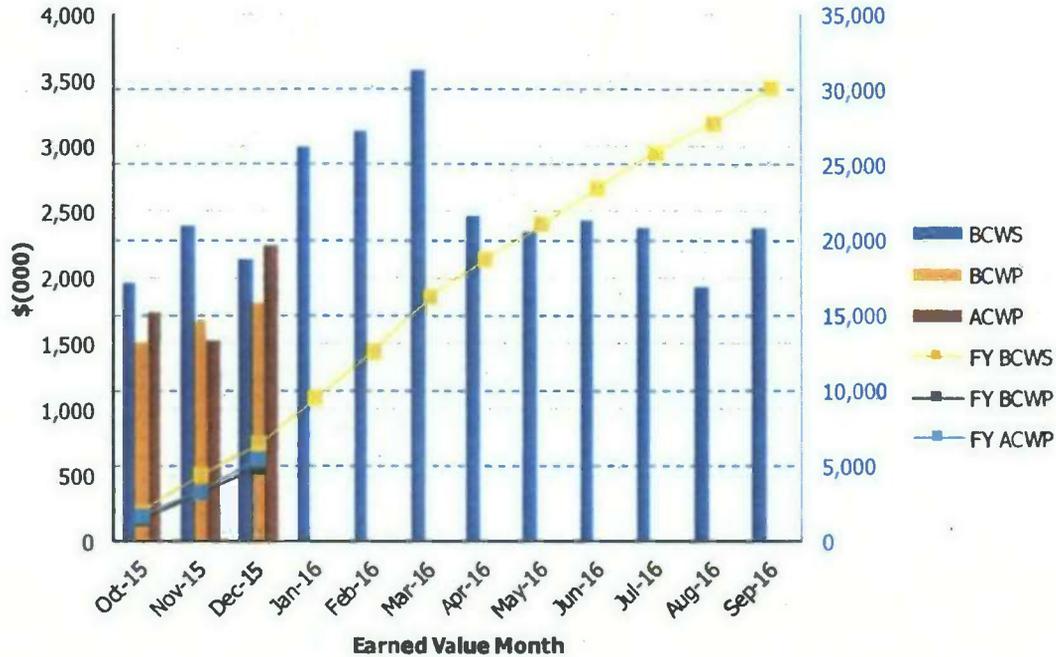
EXC-01a: Fiscal Year Cost and Schedule Report

Earned Value Data: Fiscal Year 2016

December-15

**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 2015	\$1,965	\$1,513	\$1,735	0.77	0.87	\$1,965	\$1,513	\$1,735	0.77	0.87
Nov 2015	\$2,399	\$1,669	\$1,517	0.70	1.10	\$4,364	\$3,182	\$3,252	0.73	0.98
Dec 2015	\$2,137	\$1,814	\$2,245	0.85	0.81	\$6,501	\$4,996	\$5,497	0.77	0.91
Jan 2016	\$2,998					\$9,499				
Feb 2016	\$3,113					\$12,611				
Mar 2016	\$3,582					\$16,193				
Apr 2016	\$2,472					\$18,665				
May 2016	\$2,350					\$21,015				
Jun 2016	\$2,435					\$23,450				
Jul 2016	\$2,372					\$25,822				
Aug 2016	\$1,931					\$27,753				
Sep 2016	\$2,376					\$30,129				
CTD	\$24,197	\$22,423	\$22,119	0.93	1.01					

ACWP = actual cost of work performed.
 BCWP = budgeted cost of work performed.
 BCWS = budgeted cost of work scheduled.
 CPI = cost performance index.

CTD = contract to date
 EVMS = Earned Value Management System.
 FY = fiscal year.
 SPI = schedule performance index

Treat Waste

The current month unfavorable schedule variance (SV) of **(\$323K)** is due to:

- The delay in the procurement of spherical resorcinol formaldehyde (sRF) resin for the integrated test. A work around has been developed to acquire the sRF resin. In addition, the schedule variance is also attributed to the activity being planned earlier than needed.

The current month unfavorable cost variance (CV) of **(\$431K)** is due to:

- The awarded Integrated Scale and Ion Exchange Test subcontractor execution work plan is significantly different than the current performance measurement baseline (PMB). The Integrated Scale and Ion Exchange Test are currently being re-planned to align with the subcontractor's execution work plan, which will be implemented in January 2016.

Single-Shell Tank Closure Program

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

M-045-56K, Complete Implementation of Agreed to Interim Measures, Due: July 31, 2015, Status: Complete. Annual meeting was held July 15, 2015. Meeting notes have been placed in the Administrative Record at this location:

<http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0080444H>

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-045-61A, Submit to Ecology for review and approval as an Agreement primary document, document review process, a Phase 2 Corrective Measures Study, and Revision 0 update to the RFI Report for WMA-C), Due: December 31, 2016, Status: On Schedule. The *Phase 2 RCRA Facility Investigation Report Draft A* for Waste Management Area C (WMA-C), RPP-RPT-58339, was transmitted to Ecology on December 23, 2014, via letter 14-TF-0131. This milestone was created by *Hanford Federal Facility Agreement and Consent Order (HFFACO)* change package M-45-14-03, signed October 1, 2014.

M-045-62, Submit to Ecology for review and approval as an agreement primary document a Phase 2 Corrective Measures Study Implementation Plan for WMA-C, Due: Six months after the approval of the corrective measures study (CMS) submitted under milestone M-045-61A. Status: On schedule. TPA Change Control form M-45-15-02 approved on April 14, 2015.

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

M-045-83, Complete the closure of WMA-C, Due: June 30, 2019, 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-045-85, Complete negotiations of TPA interim milestones for closure of remaining WMAs, Due: January 31, 2022, Status: On schedule.

M-045-92 (N, O, P, Q, R) Complete Installation of Four (4) Additional Interim Barriers, Due: October 31, 2017, Status: In Dispute. Please see issues.

Significant Past Accomplishments:

- Submitted TPA/RCRA Tier I Closure Plan on September 30, 2015 to Ecology
- Finalized Integrated Disposal Facility (IDF) PA data packages from workshop 2.

Significant Planned Activities in the Next Six Months:

- Continue data collection for T Farm and TY Farm interim surface barrier monitoring and develop the annual interim barrier monitoring report for 2015.
- Complete TPA/RCRA Tier 3 closure plan templates for C-200 Tanks
- Finalize/Issue for IDF PA Summary Analysis.

Issues:

- **M-045-82, Submit complete permit mod requests for Tiers 1, 2, and 3 of the SST**
 - Change Control Form M-45-15-03 was submitted by ORP via letter 15-TF-0065, "The U.S. Department of Energy, Office of River Protection Transmittal of Hanford Federal Facility Agreement and Consent Order Change Control Form M-45-15-03 to Modify Milestone M-045-82 for Approval," to Ecology for approval on June 30, 2015.
 - Ecology disapproved M-45-15-03 via letter 15-NWP-128, "Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Change Control Form, Change Number M-45-15-03, Dated June 25, 2015," on July 14, 2015.
 - ORP initiated dispute resolution via letter 15-TF-0069, "Initiation of Dispute Resolution Regarding Disapproval of Hanford Federal Facility Agreement and Consent Order Change Control Form M-45-15-03," on July 16, 2015.
 - This dispute has been extended to February 18, 2016. ORP submitted a closure schedule for regulator decision to Ecology on January 13, 2016.
- **M-045-92 (N, O, P, Q, R), Complete Installation of Four Additional Interim Barriers**
 - (N) Construct SX ISB 1 and 2 by October 31, 2015
 - (O) Design ISB 3 by June 30, 2015
 - (P) Construct ISB 3 by October 31, 2016
 - (Q) Design ISB 4 by June 30, 2016
 - (R) Construct ISB 4 by October 31, 2017
 - Change control form M-45-15-01 was submitted by ORP via letter 15-TF-0027, "Transmittal for Approval of the Hanford Federal Facility Agreement and Consent Order Change Control Form M-45-15-01 to Modify Milestone M-045-92 Due Dates," to Ecology for approval on March 31, 2015.

- Ecology disapproved M-45-15-01 via letter 15-NWP-075, "Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Change Control Form, Change Number M-045-15-01, dated 03/26/15," on April 17, 2015.
- ORP initiated dispute resolution via letter 15-TF-0042, "Initiation of Dispute Resolution Regarding Disapproval of Hanford Federal Facility Agreement and Consent Order Change Control Form M-45-15-01," on April 20, 2015.
- This dispute has been extended to February 16, 2016, with a proposed draft settlement proposed by Ecology.

Single-Shell Tank Retrieval Program

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

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

- M-045-86I: RDR for C-101 was due September 24, 2015, completed on September 24, 2015 with letter 15-TF-0099, "The U.S. Department of Energy, Office of River Protection Submits the Retrieval Data Report for Tank 241-C-101."
- M-045-86C: RDR for C-104 was due March 21, 2014, completed on February 18, 2014 with letter 14-TF-0013, "The U.S. Department of Energy, Office of River Protection Submits the Retrieval Data Report for Tank 241-C-104."
- M-45-86E: RDR for C-107 was due July 28, 2015, completed on September 15, 2015 with letter 15-TF-0086, "The U.S. Department of Energy, Office of River Protection Submits the Retrieval Data Report for Tank 241-C-107."
- M-045-86F: RDR for C-108 was due May 1, 2014, completed on November 27, 2013 with letter 13-TF-0120, "Submittal of Retrieval Data Report for Single-Shell Tank 241-C-108, RPP-RPT-55896, Revision 1."
- M-045-86G: RDR for C-109 was due June 4, 2014, completed on March 13, 2014 with letter 14-TF-0020, "The U.S. Department of Energy, Office of River Protection Submits the Retrieval Data Report for Tank 241-C-109."
- M-045-86H: RDR for C-110 was due January 29, 2015, completed on August 6, 2014 with letter 14-TF-0086, "The U.S. Department of Energy, Office of River Protection Submits the Retrieval Data Report for Tank 241-C-110."
- M-045-86K: RDR for C-112 was due September 30, 2015, completed on September 30, 2015 with letter 15-TF-0098, "The U.S. Department of Energy, Office of River Protection Submits the Retrieval Data Report for Tank 241-C-112."

Significant Past Accomplishments:

- Washington State Department of Ecology (Ecology) approved practicability evaluation request to forego a third retrieval technology in Tank 241-C-102.
- Completed Tank 241-C-102 Retrieval Completion Certification.
- Retrieved approximately 45 percent of waste from Tank 241-C-105 utilizing the Mobile Arm Retrieval System – Vacuum (MARS-V) and high-pressure water.
- Obtained Tank 241-C-105 in-process sample.
- Added 17,000 gallons of caustic (third technology) to Tank 241-C-111 in preparation of resuming retrieval operations in February, an estimated 20,500 gallons of waste remain in the tank.

- Completed C-101, C-107, and C-112 retrieval data reports (RDR).
- Completed isolation of legacy duct ventilation lines at Tanks 241-AX-101, Tank 241-AX-102, 241-AX-103 and Tank 241-AX-104.

Significant Planned Activities in the Next Six Months:

- Complete Tank 241-C-102 post retrieval sampling.
- Complete Tank 241-C-105 second and third retrieval technologies.
- Complete Tank 241-C-111 ERSS retrieval operations using high-pressure water, with caustic/water dissolution (second and third technologies).
- Complete AX Farm field work for tower, stack extension, and platform installation.
- Complete equipment removal/disposal at AX-101 pit and riser.
- Complete AX-2707 fencing and gate upgrades
- Complete AX Ventilation Installation, Testing and Startup at POR126.
- Complete building AX-2707 and building AX-80 removal and disposal.

Issues: None.

Tank Waste Retrieval Work Plan Status

Tank	TWRWP	Expected Revisions	First Retrieval Technology	Second Technology	Third Technology
C-101	RPP-22520, Rev. 8	Complete	Modified Sluicing with ERSS	High-Pressure Water deployed with the ERSS	-
C-102	RPP-22393, Rev. 7	Complete	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	Third Technology	MARS-V	MARS-V-High Pressure Water Spray	TBD
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	-

Tank	TWRWP	Expected Revisions	First Retrieval Technology	Second Technology	Third Technology
C-110	RPP-33116, Rev. 3	Complete	Modified Sluicing	Mechanical Waste Conditioning with an In-Tank Vehicle	High Pressure Water
C-111	RPP-37739, Rev. 2	Complete	Modified Sluicing	High pressure water using the ERSS	Chemical Dissolution Process with ERSS
C-112	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process	-

ERSS = Extended Reach Sluicing System
MARS = Mobile Arm Retrieval System
S = sluicing

TBD = TBD
TWRWP = Tank Waste Retrieval Work Plan
V = vacuum

Significant Accomplishments: None.

Significant Planned Activities in the Next Six Months:

- Finalize AX Farm tank waste retrieval work plans.
- Modify RPP-22520, "241-C-101, and 241-C-105, Tanks Waste Retrieval Work Plan, (C-105 TWRWP) to include a third technology for C-105 retrieval

Issues: None.

Tank in Appendix H, "Status - Single Shell Waste Retrieval Criteria"

Tank 241-C-106

Significant Past Accomplishments: None

Significant Planned Activities in the Next Six 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 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 six 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 six months and no issues for Tank 241-S-112.

FINAL

Office of River Protection
Consent Decree 08-5085-FVS

Monthly Summary Report

February 2016

Office of River Protection

Consent Decree 08-5085-FVS
Monthly Summary ReportFebruary 2016 (Monthly Summary Report/Project Earned Value Management System
reflects December 2015 information)

Page	Topic	Leads
3	CD Milestone Statistics/Status	Bryan Trimberger/Dan McDonald/Jeff Lyon
3	Consent Decree Reports/Reviews	
4	Single-Shell Tank Retrieval Program • D-00B-01, D-00B-02, D-00B-03, D-00B-04	Jeremy Johnson/Jeff Lyon
5	Tank Waste Retrieval Work Plan Status • Consent Decree Appendix C	Jeremy Johnson/Jeff Lyon
9	Waste Treatment and Immobilization Plant Project • D-00A-06, D-00A-17, D-00A-01	Joni Grindstaff/Dan McDonald
12	Pretreatment Facility • D-00A-18, D-00A-19, D-00A-13, D-00A-14, D-00A-15, D-00A-16	Dan Knight/Dan McDonald
15	High-Level Waste Facility • D-00A-20, D-00A-21, D-00A-02, D-00A-03	Wahed Abdul/Dan McDonald
18	Low-Activity Waste Facility • D-00A-07, D-00A-08, D-00A-09	Jeff Bruggeman/Dan McDonald
20	Balance of Facilities • D-00A-12	Jason Young/Dan McDonald
22	Analytical Laboratory • D-00A-005	
24	Waste Treatment Plant Project Percent Complete Status (Table)	

CD Milestone Statistics/Status

Milestone	Title	Due Date	Completion Date	Status
Fiscal Year 2014				
D-00B-01	Complete Retrieval of Tank Waste from 10 SSTs in WMA-C	09/30/2014		Past Due
D-00B-02	Advise Ecology of the Nine SSTs Waste will be Retrieved by 2022	09/30/2014	08/24/2011	Completed
Fiscal Year 2015				
D-00A-07	LAW Facility Construction Substantially Complete	12/31/2014		Past Due
D-00A-19	Complete elevation 98 feet Concrete Floor Slab Placements in PT Facility	12/31/2014		Past Due
Fiscal Year 2016				
D-00A-13	Complete Installation of Pretreatment Feed Separation Vessels	12/31/2015		Past Due
Fiscal Year 2017				
D-00A-02	HLW Facility Construction Substantially Complete	12/31/2016		Ongoing

CD = Consent Decree.

Ecology = Washington State Department of Ecology.

HLW = high-level waste.

LAW = low-activity waste.

PT = pretreatment.

SST = single-shell tank.

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 2015 Semiannual Report was issued on July 31, 2015, via U.S. Department of Energy (DOE), Office of River Protection (ORP) letter 15-ECD-0037, “July 2015 Semi-Annual Report for State of Washington vs. U.S. Department of Energy, Case No. 08-5085-FVS, for Waste Treatment and Immobilization Plant Construction and Startup Activities and Tank Retrieval Activities – November 1, 2014, thorough April 30, 2015.”

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-B1, Provide State of Oregon notice of meetings in D-006-00-B, etc. no less than 30 days before they are scheduled, Due: September 25, 2016, Status: On Schedule.

D-006-00-B, Meet Approximately Every Three Years after Entry of Decree to review requirements of the Consent Decree, Due: October 25, 2016, Status: On Schedule.

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	Past Due
D-00B-01A through D-00B-01J	Submit Tank Retrieval Complete Certification	One year following each retrieved tank retrieval completion report ^a	Ongoing
D-00B-02	Advise Ecology of the Nine SSTs from which Waste Will Be Retrieved by 2022	September 30, 2014	Completed
D-00B-03	Initiate Startup of Retrieval in At Least 5 of 9 SSTs in D-00B-02	December 31, 2017	Ongoing*
D-00B-04	Complete Retrieval of Tank Wastes from the nine SSTs in D-00B-02	September 30, 2022	Ongoing*
D-00B-04A through D-00B-04I	Submit Tank Retrieval Complete Certification	TBD	TBD

- a. Pursuant to Section IV-B-5 of the Consent Decree, the 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. Completed for SST C-107 on September 30, 2014, via ORP letter 14-TF-0114. Completed for SST C-112 on September 30, 2014, via ORP letter 14-TF-0115.

TBD = to be determined.

WMA-C = C Farm waste management area.

Significant Past Accomplishments:

- Washington State Department of Ecology (Ecology) approved practicability evaluation request to forego a third retrieval technology in Tank 241-C-102.
- Completed Tank 241-C-102 Retrieval Completion Certification.
- Retrieved approximately 45 percent of waste from Tank 241-C-105 utilizing the Mobile Arm Retrieval System – Vacuum (MARS-V) and high-pressure water.
- Obtained Tank 241-C-105 in-process sample.

- Added 17,000 gallons of caustic (third technology) to Tank 241-C-111 in preparation of resuming retrieval operations in February, an estimated 20,500 gallons of waste remain in the tank.
- Completed C-101, C-107, and C-112 retrieval data reports (RDR).
- Completed isolation of legacy duct ventilation lines at Tanks 241-AX-101, Tank 241-AX-102, 241-AX-103 and Tank 241-AX-104.

Significant Planned Activities in the Next Six Months:

- Complete Tank 241-C-102 Post Retrieval Sampling.
- Complete Tank 241-C-105 second and third retrieval technologies.
- Complete Tank 241-C-111 extended reach sluicing system (ERSS) retrieval operations using high-pressure water, with caustic/water dissolution (second and third technologies).
- Complete A/AX infrastructure (water and utilities) design – fiscal year (FY) 2015 Phase 4A and Phase 5.
- Complete isolation of legacy duct ventilation lines at Tank 241-AX-101 and Tank 241-AX-102.
- Complete AX Farm field work for tower, stack extension, and platform installation.
- Complete equipment removal/disposal at AX-101 pit and riser.
- Complete AX-2707 fencing and gate upgrades
- Complete AX ventilation installation, testing and startup at POR126.
- Complete building AX-2707 and building AX-80 removal and disposal

Issues:

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

Tank Waste Retrieval Work Plan Status

Tank	TWRWP	Expected Revisions	First Retrieval Technology	Second Technology	Third Technology
C-101	RPP-22520, Rev. 8	Complete	Modified Sluicing with ERSS	High-Pressure Water deployed with the ERSS	-
C-102	RPP-22393, Rev. 7	Complete	Modified Sluicing with ERSS	High-Pressure Water deployed with the ERSS	-

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

ERSS = extended reach sluicing system.
MARS = Mobile Arm Retrieval System.
S = sluicing.

TBD = to be determined.
TWRWP = Tank Waste Retrieval Work Plan.
V = vacuum.

Significant Accomplishments:

None.

Significant Planned Activities in the Next Six Months:

- Finalize AX Farm tank waste retrieval work plans.
- Modify RPP-22520 241-C-101 and 241-C-105 Tanks Waste Retrieval Work Plan (C-105 TWRWP) to include a third technology for C-105 retrieval

Issues:

None.

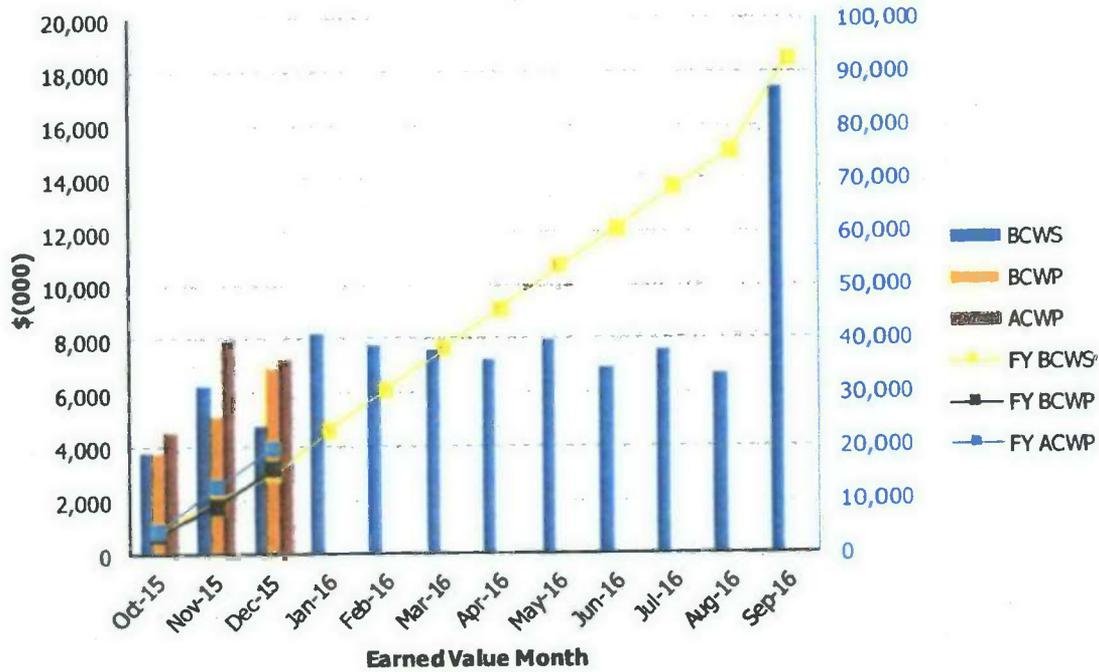
EXC-01a: Fiscal Year Cost and Schedule Report

Earned Value Data: Fiscal Year 2016

December-15

**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 2015	\$3,770	\$3,814	\$4,560	1.01	0.84	\$3,770	\$3,814	\$4,560	1.01	0.84
Nov 2015	\$6,282	\$5,131	\$8,006	0.82	0.64	\$10,052	\$8,946	\$12,566	0.89	0.71
Dec 2015	\$4,769	\$6,970	\$7,255	1.46	0.96	\$14,821	\$15,915	\$19,821	1.07	0.80
Jan 2016	\$8,231					\$23,052				
Feb 2016	\$7,740					\$30,791				
Mar 2016	\$7,610					\$38,402				
Apr 2016	\$7,251					\$45,652				
May 2016	\$8,010					\$53,662				
Jun 2016	\$6,951					\$60,613				
Jul 2016	\$7,642					\$68,255				
Aug 2016	\$6,735					\$74,989				
Sep 2016	\$17,430					\$92,419				
CTD	\$607,298	\$601,142	\$629,793	0.99	0.95					

ACWP = actual cost of work performed.
 BCWS = budgeted cost of work scheduled.
 BCWP = budgeted cost of work performed.
 CPI = cost performance index.

CTD = contract to date.
 EVMS = earned value management system.
 FY = fiscal year.
 SPI = schedule performance index.

Retrieve and Close Single-Shell Tanks

The current month favorable schedule variance (SV) of \$2,201K is due to:

- Work planners completed previously overdue work packages for AX Farm regarding at-tank installation and ventilation installation for the refurbished exhausters. In addition, construction crews completed all remaining FY 2015 carryover field activities including ventilation isolation, conduit and riser R9D excavation and riser 3 blind flange removal/adaptor spool installation in AX Farm during December.

The current month unfavorable cost variance (CV) of (\$285K) is due to:

- Retrieval operations at Tank 241-C-111 resumed on December 11th (after a brief pause due to a hydraulic leak near the HPU unit) and crews were able to perform retrieval activities on 10 out of the 28 days. The project team is required to maintain the retrieval crews during non-retrieval operations (suspension/work stoppages) to monitor the tank and retrieval equipment. Performance is based on retrieval operations (gallons retrieved).

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 2,933 full-time equivalent contractor (Bechtel National, Inc. [BNI]) and subcontractor personnel. This includes 581 craft, 409 non-manual, and 147 subcontractor full-time equivalent personnel working at the WTP construction site (all facilities).

In October 2012, the percent-complete values for Pretreatment (PT) and High-Level Waste (HLW) facilities were frozen at the September 2012 rate. Construction, procurement, and production engineering activities were placed on hold for the PT Facility and significantly slowed down for the HLW Facility. In August 2014, the U.S. Department of Energy (DOE) approved continuation of production engineering activities for HLW. Subsequently, DOE has approved the fiscal year (FY) 2015 and FY 2016 2-Year Interim Work Plan. In April 2015, a 3-Year Interim Work Plan for the PT Facility was implemented emphasizing prioritization of technical issue resolution activities. The WTP Project is focused on resolving the PT Facility technical issues and finalizing the HLW Facility design.

The WTP Project continues to focus on completion of the Low-Activity Waste (LAW) Facility, Analytical Laboratory (LAB), and Balance of Facilities (BOF) (collectively known as LBL including LBL Facility Services). As of December 2015, LBL facilities were 47 percent complete, design and engineering was 72 percent complete, procurement was 68 percent complete, construction was 72 percent complete, and startup and commissioning was 8 percent complete.

In December 2015, the cumulative to-date WTP Project schedule variance was a negative \$22.1 million, and the cumulative to-date WTP Project cost variance was a positive \$57.1 million. The cumulative to-date cost and schedule variance is based on the progress of the LBL internal forecast.

The following is the project status through the end of December 2015.

Significant Past Accomplishments:

- Received positive results from initial testing of the first high efficiency particulate air (HEPA) filter design (HLW)
- Issued WTP Preliminary Criticality Safety Evaluation Report (CSER) to Design Review Notice (DRN) for ORP review and comment (PT)
- Ammonia pressure test and control panel “burn-in” tests complete (LAW)
- Completed formwork preparation for last two castable placements on melter #1 (LAW)

- Issued the MRP for the rotary screw compressor (BOF)
- Submitted the initial EMF PDSA (BOF)
- Transmit HPAV PDSA Change Package to ORP for comment and review (PT)

Significant Planned Actions in the Next Six Months:

- DOE approval of the radioactive liquid waste disposal (RLD) safety basis change package (HLW)
- Submit Basis of Design Change Notice (BODCN) and SRD to ORP for approval (PT)
- Continue full-scale HEPA filter testing to select filter(s) that will support the WTP ventilation and off-gas needs (HLW)
- DOE approve the initial EMF Preliminary Documented Safety Analysis (PDSA) (BOF)
- Begin excavation of the EMF drain pit (BOF)
- Complete synergy and sliding bed evaluation reports and brief ORP (PT)
- Complete site energization from permanent power supply (BOF)

Issues:

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

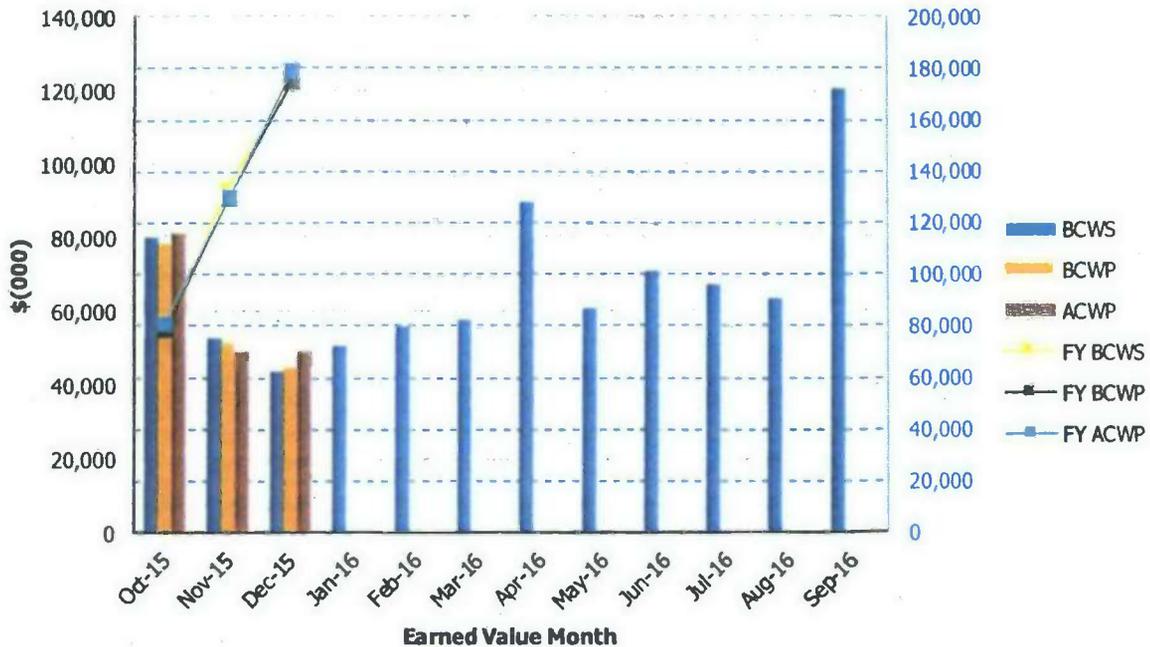
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data

Data as of: December 2015

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

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	\$79,800	\$78,230	\$81,000	0.98	0.97	\$79,800	\$78,230	\$81,000	0.98	0.97
Nov 2015	\$52,815	\$51,614	\$49,184	0.98	1.05	\$132,615	\$129,844	\$130,184	0.98	1.00
Dec 2015	\$43,659	\$44,505	\$48,853	1.02	0.91	\$176,275	\$174,348	\$179,037	0.99	0.97
Jan 2016	\$50,522									
Feb 2016	\$56,043									
Mar 2016	\$57,792									
Apr 2016	\$89,522									
May 2016	\$60,985									
Jun 2016	\$70,938									
Jul 2016	\$67,428									
Aug 2016	\$63,446									
Sep 2016	\$120,847									

PTD \$9,276,038 \$9,253,895 \$9,196,839 1.00 1.01

ACWP = actual cost of work performed.
 BCWS = budgeted cost of work scheduled.
 BCWP = budgeted cost of work performed.
 CPI = cost performance index.

PTD = project to date.
 EVMS = earned value management system.
 FY = fiscal year.
 SPI = schedule performance index.

Pretreatment Facility

Number	Title	Due Date	Status*
D-00A-19	Complete Elevation 98' Concrete Floor Slab in PT Facility	12/31/2014	Past Due
D-00A-13	Complete Installation of Pretreatment Feed Separation Vessels	12/31/2015	Past Due
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 Pretreatment (PT) Facility will separate radioactive tank waste into high-level waste (HLW) and low-activity waste (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. Bechtel National, Inc. (BNI) and U.S. Department of Energy (DOE) continue to focus on resolving technical issues, performing hazard analyses, and completing safety evaluations for process systems in accordance with the revised PT Facility 3-year Interim Work Plan

BNI has submitted resolution plans for eight technical issues: T1, Hydrogen in Vessels; T2, Criticality; T3, Hydrogen in Piping and Ancillary Vessels (HPAV); T4, Mixing; T5, Erosion Corrosion; T6, PT Facility Optimization; T7, Vessel Analysis; and T8, Ventilation. Phase 1 of the Full-Scale Vessel Testing is continuing for the PJM controls utilizing the RLD-8T vessel. Technical review teams continue to evaluate open PT Facility technical issues. An evaluation is ongoing relative to a standardized design for high-solids vessels within the PT Facility. With primary emphasis on design and fabrication of hold point releases supporting procurement, fabrication, and delivery of the standardized high solids vessel design (SHSVD)-T16ft vessel.

Significant Past Accomplishments:

- Issued WTP Preliminary Criticality Safety Evaluation Report (CSER) to Design Review Notice (DRN) for ORP review and comment
- Transmit HPAV PDSA Change Package to ORP for comment and review
- Provided Pipe Loop design for ORP review comment and review
- Completed Phase 2 controls testing
- Issued 30% Test Mixing Plan

Significant Planned Actions in the Next Six Months:

- Transmit Engineering Study – Engineering Design Review (EDR) and comment resolution
- Submit Basis of Design Change Notice (BODCN) and safety requirements document to ORP for approval
- Complete synergy and sliding bed evaluation reports and brief ORP
- Start Phase 3 controls testing in SHSVD test
- Complete fabrication pulse jet mixers (PJMs) 1 and 2
- Identify SHSVD design features to test vessel completion

Issues:

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

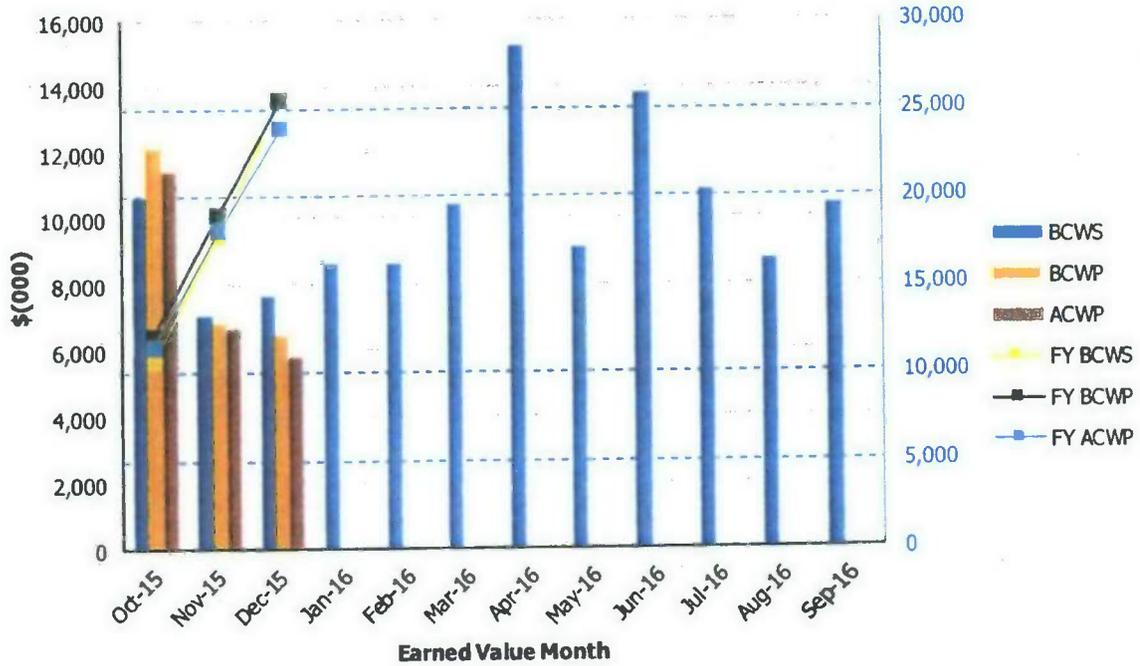
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data

Data as of: December 2015

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

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	\$10,667	\$12,155	\$11,441	1.14	1.06	\$10,667	\$12,155	\$11,441	1.14	1.06
Nov 2015	\$7,074	\$6,836	\$6,648	0.97	1.03	\$17,741	\$18,991	\$18,089	1.07	1.05
Dec 2015	\$7,678	\$6,441	\$5,777	0.84	1.11	\$25,419	\$25,432	\$23,867	1.00	1.07
Jan 2016	\$8,595									
Feb 2016	\$8,625									
Mar 2016	\$10,398									
Apr 2016	\$15,196									
May 2016	\$9,087									
Jun 2016	\$13,766									
Jul 2016	\$10,826									
Aug 2016	\$8,731									
Sep 2016	\$10,437									

PTD \$1,757,819 \$1,757,264 \$1,736,426 1.00 1.01

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|---|--|
| ACWP = actual cost of work performed. | PTD = project to date. |
| BCWS = budgeted cost of work scheduled. | EVMS = earned value management system. |
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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 High-Level Waste (HLW) Facility will receive the separated HLW concentrate from the Pretreatment (PT) Facility. This concentrate will be blended with glass formers, converted into molten glass in one of the two HLW melter, and then poured into cylindrical stainless steel canisters. After cooling, the canisters will be sealed and decontaminated before shipping 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 2012.

Currently, all activities are being performed in accordance with the FY 2015/FY 2016 2-Year Work Plan. Efforts are focused on completing activities required to obtain full production authorization by the U.S. Department of Energy (DOE). Limited construction is continuing with the concrete placements, installation of support steel, and crane rails in the canister decontamination cave and melter caves.

To support construction, engineering continues to execute detailed evaluations of structural supports for future installation of piping, duct, and cable trays. Design activities are focused to support implementation of technical core team recommendations, performance of engineering studies and analysis to disposition design, and operability review comments. Hazard and accident analyses are ongoing to support the Preliminary Documented Safety Analysis (PDSA) update to align design and the safety basis.

Systems engineering continues to develop system design descriptions (SDD), and incorporate SDD requirements into a requirements management system to ensure that all requirements are verified at the completion of design.

Multiple high-efficiency particulate air (HEPA) filter media designs are planned to be tested to ensure the qualified filters support the needs for HLW, along with the Low-Activity Waste (LAW) Facility, Analytical Laboratory (LAB), and the Balance of Facilities (BOF) (collectively known as LBL). Testing of the full-scale filter designs at Mississippi State University is ongoing, showing very positive and successful initial test results. Fabrication of the additional filters and testing continues.

PDSA change package for the radioactive liquid waste disposal (RLD) vessels 7 and 8 is undergoing DOE review.

Significant Past Accomplishments:

- Received positive results from initial testing of the first HEPA filter design
- Completed two concrete placements (wall 3133 and slab 4002)
- Installed 10 tons of structural steel
- Issue feed process system spray leak engineering study to support PDSA update

Significant Planned Actions in the Next Six Months:

- DOE approval of the RLD safety basis change package
- Continue full-scale HEPA filter testing to select filter(s) that will support the WTP ventilation and off-gas needs
- Complete installation of crane rails and supports in the canister decontamination cave
- Issue emergency turbine generator (ETX) system design description
- Issue Phase 1 of the high-level waste melter off-gas treatment process/process vessel vent engineering study
- Issue the radioactive waste handling system engineering study
- Complete facility hazards analysis to support PDSA update
- Continue civil build-out of the HLW facility

Issues:

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

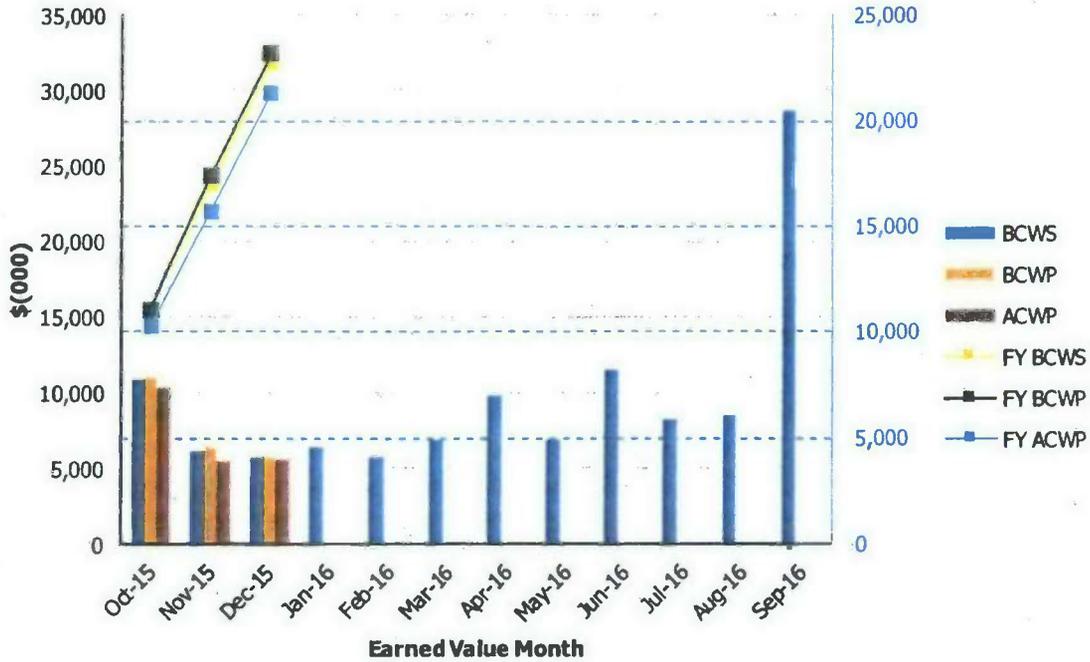
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data

Data as of: December 2015

**River Protection Project
High-Level Waste Facility (WBS 1.03)**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	\$10,905	\$11,028	\$10,257	1.01	1.08	\$10,905	\$11,028	\$10,257	1.01	1.08
Nov 2015	\$6,103	\$6,326	\$5,452	1.04	1.16	\$17,008	\$17,355	\$15,708	1.02	1.10
Dec 2015	\$5,737	\$5,795	\$5,634	1.01	1.03	\$22,745	\$23,150	\$21,343	1.02	1.08
Jan 2016	\$6,375									
Feb 2016	\$5,725									
Mar 2016	\$6,884									
Apr 2016	\$9,761									
May 2016	\$6,941									
Jun 2016	\$11,434									
Jul 2016	\$8,172									
Aug 2016	\$8,461									
Sep 2016	\$28,693									

PTD \$1,224,033 \$1,223,416 \$1,207,472 1.00 1.01

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|---|--|
| ACWP = actual cost of work performed. | PTD = project to date. |
| BCWS = budgeted cost of work scheduled. | EVMS = earned value management system. |
| BCWP = budgeted cost of work performed. | FY = fiscal year. |
| CPI = cost performance index. | SPI = schedule performance index. |

Low-Activity Waste Facility

Number	Title	Due Date	Status*
D-00A-07	LAW Facility Construction Substantially Complete	12/31/2014	Past Due
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 Low-Activity Waste (LAW) Facility will process concentrated low-activity waste which will be mixed with silica and other glass-forming materials. The mixture will be fed into the LAW's two melters, at a design capacity of 30 metric tons per day, and heated to 2,100 degrees Fahrenheit and vitrified into glass. The 300-ton melters are approximately 20 feet by 30 feet and 16 feet high. The glass mixture will then be poured into stainless steel containers, which are four feet in diameter, seven feet tall and weigh more than seven tons. These containers are anticipated to be disposed of on the Hanford Site in the Integrated Disposal Facility. As of December 2015, the LAW Facility was 52 percent complete overall, with engineering design 71 percent complete, procurement 69 percent complete, construction 76 percent complete, and startup and commissioning 5 percent complete.

Significant Past Accomplishments:

- Installed 190 linear feet of process piping
- Installed 1,020 linear feet of conduit and pulled 16,730 linear feet of cable
- Installed 159 process area penetration seals
- Started installation of Wet Electrostatic Precipitator (WESP) electrode assemblies
- Ammonia pressure test and control panel "burn-in" tests complete
- Completed formwork in preparation for the last two castable placements on melter #1

Significant Planned Actions in the Next Six Months:

- Complete subcontractor work scope in the annex
- Receive caustic scrubber
- Assemble and install wet electrostatic precipitator internals
- Receive the thermal catalytic oxidizer (TCO) and ammonia skid
- Documented Safety Analysis (DSA) Chapter 3.3 "Hazards Analysis" complete
- Place melter lid castable refractor

Issues:

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

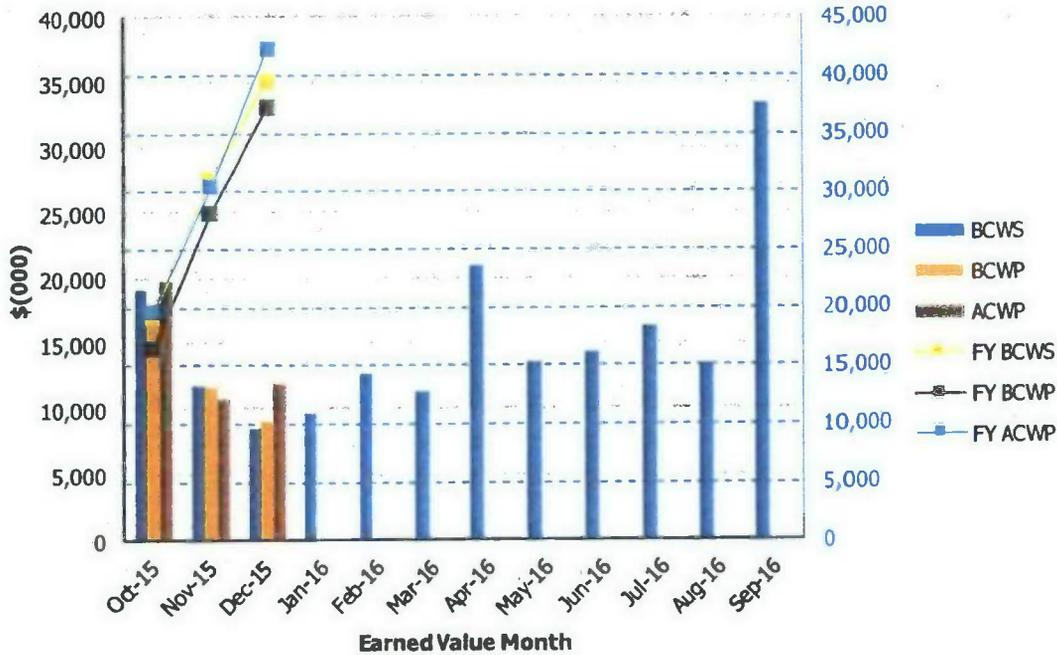
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data

Data as of: December 2015

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

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	\$19,131	\$16,406	\$19,702	0.86	0.83	\$19,131	\$16,406	\$19,702	0.86	0.83
Nov 2015	\$11,764	\$11,637	\$10,735	0.99	1.08	\$30,896	\$28,043	\$30,436	0.91	0.92
Dec 2015	\$8,520	\$9,132	\$11,880	1.07	0.77	\$39,416	\$37,175	\$42,316	0.94	0.88
Jan 2016	\$9,694									
Feb 2016	\$12,760									
Mar 2016	\$11,350									
Apr 2016	\$20,995									
May 2016	\$13,579									
Jun 2016	\$14,295									
Jul 2016	\$16,304									
Aug 2016	\$13,377									
Sep 2016	\$33,350									

PTD \$1,257,615 \$1,245,430 \$1,243,805 0.99 1.00

ACWP = actual cost of work performed. PTD = project to date.
 BCWS = budgeted cost of work scheduled. EVMS = earned value management system.
 BCWP = budgeted cost of work performed. FY = fiscal year.
 CPI = cost performance index. SPI = schedule performance index.

Balance of Facilities

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

BOF = Balance of Facilities

The Balance of Facilities (BOF) will provide services and utilities to support operation of the main production facilities: Pretreatment (PT), High-Level Waste (HLW), Low-Activity Waste (LAW), and Analytical Laboratory (LAB). As of December 2015, BOF was 54 percent complete overall, with engineering design 74 percent complete, procurement 76 percent complete, construction 81 percent complete, and startup and commissioning 15 percent complete.

Engineering activities are in progress to develop the design for BOF systems in support of direct feed, low-activity-waste (DFLAW). Current efforts are focused on progressing the design of the Effluent Management Facility (EMF), identifying and supporting BOF system isolations, supporting procurement activities, and finalizing the initial Preliminary Design Safety Analysis (PDSA) for the EMF. Construction efforts are focused on initial excavation of the EMF, installation of BOF system isolations, and completion of the remaining items required for energization of the Waste Treatment and Immobilization Plant (WTP) switchgear building from the permanent power supply.

Significant Past Accomplishments:

- Issued the manufacturing resource planning (MRP) for the rotary screw compressor
- Submitted the initial EMF PDSA
- Continued excavation and drilling activities to install cathodic protection system upgrades and started anode installation and backfill
- Continued switchgear testing in support of site energization

Significant Planned Actions in the Next Six Months:

- DOE approve the initial EMF PDSA
- Begin excavation of the EMF drain pit
- Complete site energization from permanent power supply

Issues:

No major issues at this time.

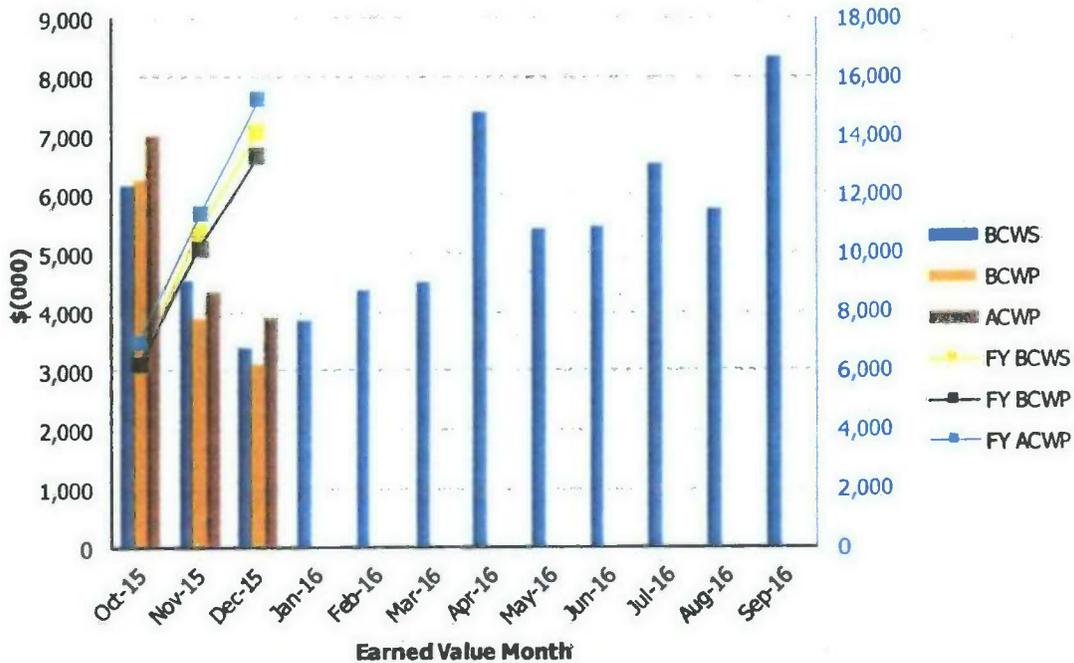
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data

Data as of: December 2015

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

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	\$6,160	\$6,249	\$7,006	1.01	0.89	\$6,160	\$6,249	\$7,006	1.01	0.89
Nov 2015	\$4,555	\$3,913	\$4,344	0.86	0.90	\$10,715	\$10,162	\$11,350	0.95	0.90
Dec 2015	\$3,400	\$3,134	\$3,917	0.92	0.80	\$14,115	\$13,296	\$15,267	0.94	0.87
Jan 2016	\$3,874									
Feb 2016	\$4,367									
Mar 2016	\$4,492									
Apr 2016	\$7,400									
May 2016	\$5,420									
Jun 2016	\$5,459									
Jul 2016	\$6,538									
Aug 2016	\$5,738									
Sep 2016	\$8,346									
PTD	\$443,609	\$438,498	\$438,890	0.99	1.00					

ACWP = actual cost of work performed.
 BCWS = budgeted cost of work scheduled.
 BCWP = budgeted cost of work performed.
 CPI = cost performance index.

PTD = project to date.
 EVMS = earned value management system.
 FY = fiscal year.
 SPI = schedule performance index.

Analytical Laboratory

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

LAB = Analytical Laboratory

The Analytical Laboratory (LAB) will support Waste Treatment and Immobilization Plant (WTP) operations by analyzing feed, vitrified waste, and effluent streams. As of December 2015, the LAB was 58 percent complete overall, with engineering design 75 percent complete, procurement 87 percent complete, construction 94 percent complete, and startup and commissioning 10 percent complete.

During this reporting period engineering efforts were focused on LAB system reviews to evaluate potential modifications or isolations in support of the direct feed of low-activity waste (DFLAW). Closure of nonconformance reports and construction deficiency reports continued. Construction efforts within the LAB focused on installation of the test engineers work station to support BOF startup efforts. The remaining construction work scope will be completed in parallel with system modifications and construction activities required to support the direct feed of LAW.

Significant Past Accomplishments:

- Continued installation of the test engineers workstation – installed and tested fiber
- Continued development of procedures for the WTP analytical methods development process

Significant Planned Actions in the Next Six Months:

- Complete test engineers work station
- Initiate component level testing of select LAB systems
- Complete LAB system walk downs in support of DFLAW modifications

Issues:

No major issues at this time.

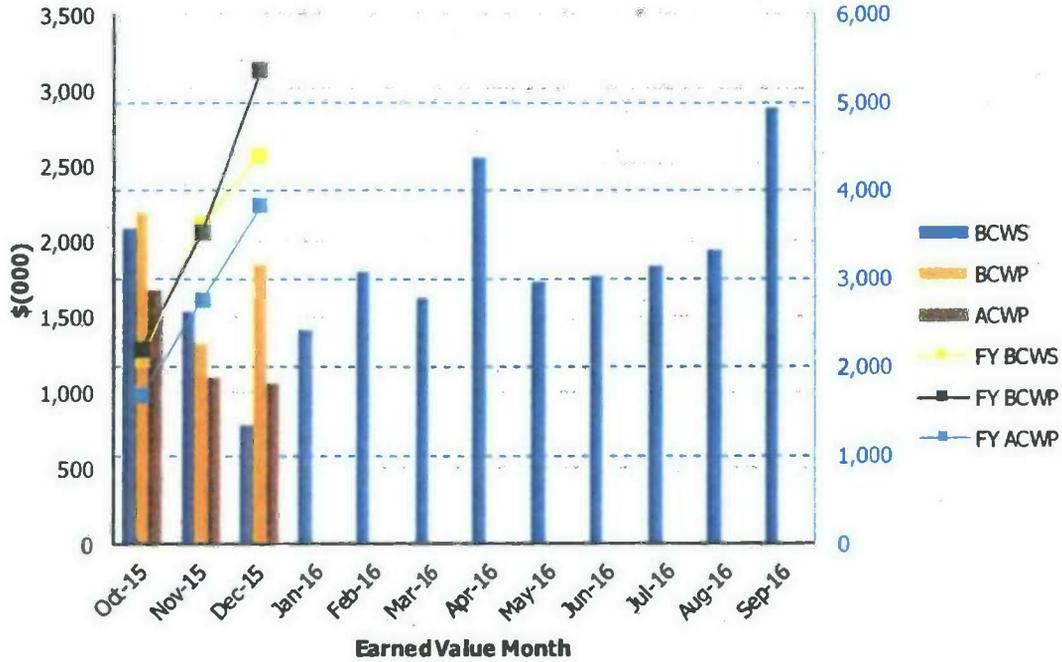
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data

Data as of: December 2015

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

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	\$2,083	\$2,188	\$1,674	1.05	1.31	\$2,083	\$2,188	\$1,674	1.05	1.31
Nov 2015	\$1,528	\$1,324	\$1,093	0.87	1.21	\$3,611	\$3,513	\$2,768	0.97	1.27
Dec 2015	\$789	\$1,844	\$1,060	2.34	1.74	\$4,399	\$5,356	\$3,827	1.22	1.40
Jan 2016	\$1,415									
Feb 2016	\$1,786									
Mar 2016	\$1,628									
Apr 2016	\$2,555									
May 2016	\$1,732									
Jun 2016	\$1,765									
Jul 2016	\$1,826									
Aug 2016	\$1,933									
Sep 2016	\$2,880									

PTD \$316,965 \$316,275 \$312,176 1.00 1.01

ACWP = actual cost of work performed.
 BCWS = budgeted cost of work scheduled.
 BCWP = budgeted cost of work performed.
 CPI = cost performance index.

PTD = project to date.
 EVMS = earned value management system.
 FY = fiscal year.
 SPI = schedule performance index.

Waste Treatment Plant Project Percent Complete Status (Table)

**Waste Treatment Plant Project - (LBL/Project Services) Percent Complete Status
Through December 2015**

(Dollars - Millions)	Overall Facility Percent Complete Unallocated Dollars			Design/Engineering Unallocated Dollars			Procurement Unallocated Dollars			Construction Unallocated Dollars			Startup & Plant Operations Unallocated Dollars			Project Management & Shared Services Unallocated Dollars		
	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete
Facilities																		
Low-Activity Waste	2,271.1	1,170.4	52%	531.7	378.9	71%	370.3	256.9	69%	658.0	497.2	76%	707.0	33.3	5%	4.0	4.0	100%
Balance of Facilities	755.6	410.8	54%	149.7	110.7	74%	71.6	54.1	76%	253.7	204.9	81%	280.1	40.7	15%	28.2	28.2	100%
Analytical Lab	530.5	308.3	58%	106.1	80.0	75%	65.4	56.8	87%	160.7	150.5	94%	197.9	20.6	10%	8.4	8.4	100%
LBL Facility Services	603.5	78.0	13%	0.0	0.0	0%	53.4	12.8	24%	128.7	11.8	9%	264.5	25.6	10%	156.8	27.80	18%
Total LBL	4,160.7	1,967.5	47%	787.6	569.5	72%	560.7	380.5	68%	1,201.1	864.5	72%	1,449.6	120.3	8%	197.5	68.5	35%
Direct Feed LAW	372.5	28.9	7%	78.9	22.6	29%	58.0	0.33	1%	226.5	2.5	1%	0.0	0.0	0%	9.0	1.51	17%
Project Services	369.2	247.4	67%	53.3	33.6	63%	34.9	22.5	64%	71.4	58.1	81%	1.7	1.7	100%	207.9	131.5	63%
Total DFLAW & PS	741.7	274.3	37%	132.2	56.2	42%	93.0	22.8	25%	297.9	60.6	20%	1.7	1.7	100%	219.9	133.0	61%
Total LBL, DFLAW & Project Services	4,902.4	2,241.9	46%	919.8	625.7	68%	653.7	403.4	62%	1,499.0	925.1	62%	1,451.3	122.0	8%	414.4	201.5	49%
PT/HLW/SS Percent Complete Status Frozen as of September 2012 (due to project rebaselining 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%	1,170.0	977.9	83%	451.7	395.0	87%	1,436.5	1,143.0	80%	453.5	133.2	29%	1,338.1	983.5	73%
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%	1,338.1	983.5	73%
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	13,625.2	8,207.1	60%	3,092.9	2,574.6	83%	2,219.2	1,528.2	69%	4,386.6	2,689.9	61%	2,209.8	265.2	12%	1,752.5	1,185.0	68%

Sources: Preliminary WTP Contract Performance Report - Format 1, Data for December 2015

Note: In September 2012, the LBL Replan was incorporated into the project OTB baseline resulting in increases/decreases to the LBL facility budgets, which correspondingly increased/decreased the facility/function-to-date percent complete values. In October 2012, the PT/HLW/SS Interim Work Plan was incorporated into the project OTB baseline resulting in decreases to the PT/HLW/SS facility budgets, this was due to a work scope shift from the Distributed budget to UB. Percent Complete Values shown for PT, HLW and SS have been frozen with the September 2012 values due to the Interim Work Plan and budgets being moved into UB. UB value for the project for PT/HLW/SS is \$2,014M. The percent complete values for the Total WTP are the current total LBL BCWP added to the frozen HLW/PT/SS BCWP values. In March 2014, Project Controls and Project Management work scope was moved out of Shared Services control accounts into the facilities with new control accounts being set up in the facilities. These will now be seen under Project Management/Shared Services by facility. The Shared Services PMB value has not been changed to reflect this change due to the freeze on HLW/PT and SS and the budgets remaining in UB. October 2014 date reflects the incorporation of Direct Feed LAW and the split of Shared Services into LBL Facility Services and Project Services. July 2015 LBL percent complete date is a total of LAW-BOF-LAB and LBL Facility Services. The Project Services Allocation account (PSA), as shown on the CPR Format 1, is not added to LBL for percent complete purposes.