

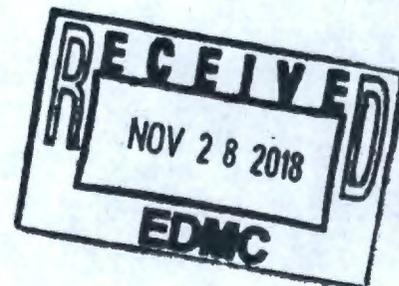
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Office of River Protection
Project Managers' Meeting Minutes

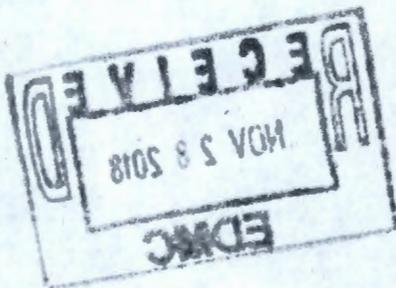
2440 Stevens Center
Richland, Washington

October 18, 2018



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PROJECT MANAGERS CONCURRENCE SIGNATURES

The undersigned indicate by their signatures that these meeting minutes reflect the actual occurrences of the above dated Tri-Party Agreement Quarterly Milestone Review Meeting.

Wahed Abdul Date: 11/9/18
Wahed Abdul, DOE-ORP

Jan B Bovier Date: 11/9/18
SB Jan Bovier, DOE-ORP

Kaylin Burnett Date: 11/19/18
KW Kaylin Burnett, DOE-ORP

Paul Hernandez Date: 11/9/18
Paul Hernandez, DOE-ORP

Steve Pfaff Date: 11/19/2018
SH Steve Pfaff, DOE-ORP

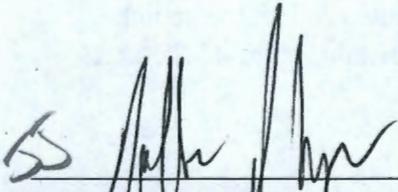
Jeff Rambo Date: 11/13/18
JR Jeff Rambo, DOE-ORP

Sahid Smith Date: 11/13/18
SS Sahid Smith, DOE-ORP

Dustin Stewart Date: 11/14/18
DS Dustin Stewart, DOE-ORP

Richard Valle Date: 11/09/2018
RV Richard Valle, DOE-ORP

Jason Young Date: 11/9/18
JY Jason Young, DOE-ORP



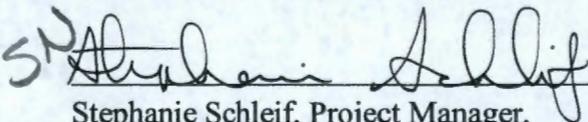
Jeff Lyon, Project Manager,
Washington State Department of Ecology

Date: 11-26-18



Dan McDonald, Project Manager,
Washington State Department of Ecology

Date: 11-21-18



Stephanie Schleif, Project Manager,
Washington State Department of Ecology

Date: 11/21/18

TRI-PARTY AGREEMENT MILESTONE REVIEW AND MONTHLY SUMMARY REPORT

1.0 ADMINISTRATIVE ITEMS/MILESTONE STATUS

Upcoming Meetings

The next project managers meeting (PMM) is scheduled for Thursday, January 3, 2019, from 9:00 a.m. to 11:30 a.m. at the ORP office in Richland, Washington. The December 2018 PMM has been canceled, and the new schedule for the PMMs will start in January 2019 to allow the Consent Decree (CD) report to be reviewed, approved, and provided to Ecology before the meetings. ORP distributed a new schedule for the PMMs and quarterly milestone review meetings for calendar year 2019, which was agreed to by ORP and Ecology. The PMMs will be held the first Thursday of each month, which increases the number of PMMs from eight to 12. During the month that a quarterly milestone review meeting is scheduled, the PMM will also be held. The quarterly milestone review meetings will be restructured to deliver a high-level presentation to senior management. ORP noted that a correction will be made to the new schedule before it is emailed to change the text under the time column to read tank farms and WTP instead of TPA and CD.

The next ORP quarterly milestone review is scheduled for November 15, 2018, from 8:45 a.m. to 11:00 a.m. at the Ecology office in Richland, Washington. The IAMIT will precede the ORP quarterly review, starting at 8:00 a.m.

Recent Items Entered/To Be Entered into the Administrative Record (AR)

U.S. Department of Energy (DOE), Office of River Protection (ORP) provided the monthly TPA report for October 2018, which covers progress during the period of September 1-30, 2018, and the earned value management system (EVMS) data for August 1-31, 2018. The October 2018 Consent Decree (CD) monthly summary report covering the same period as the September 2018 TPA report has not been issued and was not available for today's PMM.

Tri-Party Agreement Milestone Status

ORP pointed out that milestone M-045-91I was completed to provide the IQRPE certification for SST structural integrity. ORP noted that since the new fiscal year (2019) started October 1, 2018, the milestone status on page 3 of today's TPA handout is listed as prior years. The following page lists the milestone status for FY 2019 and FY 2020.

Office of River Protection/Washington State Department of Ecology Tri-Party Agreement and Consent Decree Agreements, Issues and Action Items – October 2018

(See agreements, issues and action items table):

Action No. 1 (TF-16-11-04)

ORP stated that an internal follow-up is under way to make a decision on the direction for T-112. ORP added that the T-112 work plan or the decision on the direction for T-112 will be provided to Ecology by next month's meeting. This action remains on hold.

Action No. 2 (TF-17-04-01)

ORP stated that there is still no schedule for removal of the 242-A Evaporator diesel generator, and that the removal work will probably not occur in the near future. ORP asked if the action item should continue to be carried. Ecology responded that it would follow up internally and provide a response to ORP. This action remains open.

Action No. 3 (TF-18-11-03)

ORP stated that an internal meeting will be held next week, and a meeting with Ecology and WRPS will be scheduled in the coming weeks. ORP noted that Ecology came out to HiLine to observe a demonstration of the new emergency annulus pumping system, which will be factored into the rewriting of the DST tank pumping guide. This action remains open.

Action No. 4 (TF-18-02-01)

ORP noted that this action was closed last month (9/19/18), and it will be removed from the action item table.

Action No. 5 (TF-18-07-01)

ORP suggested closing this action item since DOE-RL has the lead for integrating the groundwater modeling. Ecology inquired about the outcome from the action. ORP responded that DOE-RL has access to ORP's data. Ecology suggested leaving the action open for another month while it follows up internally with management about how it plans to proceed. Ecology noted that the parties are in the middle of committing to doing some actions, but the end result is not clear since it will be another year to year-and-a-half before an Interim Record of Decision (IROD) is done that will include BP-5.

ORP asked what evidence would constitute integration. Ecology responded that ORP had pinpointed the issue with its question, and suggested moving the action to issues under the closure section of the TPA report. Ecology added that the issue should state that Tc-99 contamination has been identified in C Farm, and Ecology expects DOE-RL to issue an IROD to address the issue. ORP agreed to move this action item to the issues under the closure section. This action will be closed next month when it has been moved to the closure issues. This action remains open.

New Action

Ecology requested a new action item to schedule a meeting with ORP to discuss some concerns regarding the presentation that was given on the tank side cesium removal (TSCR) project. ORP acknowledged that Ecology expressed concerns regarding the potential incompatibility of the crystalline silicotitanate (CST) resin with the high level waste glass matrix due to the amount of titanium in the CST, and the potential for agglomeration of CST during the process and during long-term storage. ORP offered Ecology the opportunity to view some of the tall column tests that will address some of the concerns, including agglomeration of CST in the column. ORP stated that the pressure differential across the column can be tracked, and based on the pressure, agglomeration and flooding can be identified within the column.

Ecology suggested scheduling a meeting with ORP within the next two weeks. ORP agreed to schedule a meeting, but noted that the tall column testing will be done outside the two-week time frame for scheduling the meeting. Ecology suggested that the first meeting could be held to discuss the potential for resolution and the schedule for the next two months. ORP agreed with Ecology's suggestion for moving forward.

ORP Action: *ORP to schedule a meeting to discuss Ecology's concerns regarding the TSCR project, specifically the potential incompatibility of CST with high level waste glass.*

2.0 SYSTEM PLAN

ORP stated that there were no updates to provide for System Plan. ORP noted that since there are several milestones tied to the System Plan negotiations, the milestones that are in abeyance under Acquisition of New Facilities and Supplemental Treatment and Part B Permit Applications refer back to page 6 for System Plan. Ecology stated that the reference to page 6 was acceptable.

3.0 ACQUISITION OF NEW FACILITIES

ORP stated that there were no changes to discuss. (See discussion under System Plan).

4.0 SUPPLEMENTAL TREATMENT AND PART B PERMIT APPLICATIONS

ORP stated that there were no changes to discuss. (See discussion under System Plan).

5.0 DIRECT FEED LOW-ACTIVITY WASTE PROJECTS

Low Activity Waste Pretreatment System (LAWPS) Significant Past Accomplishments - ORP noted that the 45 percent design review on a more permanent, nonelutable ion exchange system for the LAWPS project was wrapped up by the end of FY 2018, and the design material is under configuration management. ORP stated that there is both a 75 percent design complete version of an elutable system and a 45 percent design complete of a nonelutable system, which will provide a significant amount of information for a later alternatives analysis for phase 2 of the LAWPS project. ORP noted that the LAWPS project is currently in phase 1 (see TSCR below).

LAWPS Significant Planned Actions in the Next Six Months - There are no actions planned in the next six months.

Tank-Side Cesium Removal (TSCR) Significant Past Accomplishments - ORP stated that phase 1 of the LAWPS project is primarily the tank side cesium removal (TSCR) demonstration project. ORP noted that the 30 percent design review was completed September 25, 2018, and a number of comments were received, most of which were requests for clarification. ORP added that there were some comments from the operations group in tank farms, which resulted in extending the width of the TSCR box by two feet. The additional two feet will allow the appropriate levels of proof for making operations during the time when the columns and filters are disconnected for drying and replacing the columns.

ORP reported that the process hazards analysis was recently completed, which will provide an understanding of the safety posture that will be needed.

Ecology inquired about phase 2 of the LAWPS project. ORP responded that phase 2 would involve the path forward for permanent cesium removal capability, which in the past was called the LAWPS facility. ORP stated that a decision has not been made for a permanent LAWPS facility, and an evaluation of the three designs will be done in the 2021 time frame to select either a second TSCR, a more optimized TSCR for higher process, or the full facility.

Ecology inquired about the disposition for the nonelutable ion exchange columns and if it will be part of the phase 2 analysis. ORP responded that there will be self-shielded ion exchange columns full of the nonelutable media that will strip the cesium out of the waste on its way to the LAW facility. ORP stated that the plan is to retrieve the media from the columns and run it through a high level waste melter, but there's not any more detailed planning at this point. ORP added that the phase 2 of the LAWPS project will not do the disposition planning either. ORP stated that the sequencing of processing waste through the high level waste melter is to process the cesium/strontium capsules - which DOE-RL oversees and will be placing into dry storage - at the end of the waste treatment mission for the High Level Waste (HLW) facility. ORP stated that the nonelutable ion exchange media would presumably be processed towards the end of the HLW facility operations. ORP noted that the cesium/strontium capsules and the ion exchange media will be in a more stable and relatively lower risk waste form, and the priority is to get the tank waste out of the tanks and process that first.

ORP noted that Ecology has raised the question several times regarding the disposition of the ion exchange columns media. ORP stated that testing has been done, which shows it is possible to turn CST media into glass. ORP added that at this time it is not known what exactly will be done or how the HLW facility will be modified since funding is not being applied to that effort. Ecology pointed out that the recent discussion with ORP had to do with the TSCR columns, and Ecology has several technical issues associated with how the TSCR media will be dispositioned. Ecology noted that the purpose of the action item for a meeting with ORP, which was set up earlier today, is to discuss the issues before design is further along to ensure that everything is resolved or provide an explanation for a change in design. ORP agreed with Ecology's reasoning for a more detailed technical discussion, and acknowledged that a plausible path forward is needed in the near term for being able to retrieve the media.

TSCR Significant Planned Actions in the Next Six Months – ORP stated that the 60 percent design review is scheduled for November 30, 2018 through December 12, 2018. ORP noted that the 90 percent design review is planned for the springtime of 2019, which reflects an aggressive schedule.

6.0 242-A EVAPORATOR STATUS

Significant Past Accomplishments - ORP stated that the spare PB-1 pump has been removed from the loadout room and relocated to an exterior location, where it has been placed on two-inch thick metal planks and secured with rubber sheeting over the top. A three-story heated canvas tent was set up last week, and HVAC and electrical service is being installed this week so the tent can be used to rebuild the spare PB-1 pump. ORP added that as soon as the spare parts are received, work will start on rebuilding the spare PB-1 pump.

Significant Planned Actions in the Next Six Months - ORP stated that the parallel path to rebuilding the spare PB-1 pump is to procure a new PB-1 replacement pump. The current plan is

to have the spare PB-1 pump rebuilt in the January/February 2019 time frame and then install it in place of the broken PB-1 pump, which will allow evaporator campaigns. Ecology inquired about the disposition of the broken PB-1 pump that is currently installed. ORP responded that the broken pump will be removed, but there is no current plan to rebuild it. Oregon Department of Energy (ODOE) inquired about the time line for rebuilding the PB-1 pump versus the procurement of a new PB-1 pump. ORP responded that the original pump manufacturer was contacted, and they submitted a proposal for pumps that will achieve the same volume and flow rate. ORP noted that the proposal was not a like-for-like pump replacement. ORP stated that the plan is to utilize the rebuilt PB-1 pump since it would be available in the January/February 2019 time frame. ORP added that once the procurement action is completed for a new PB-1 pump, the lead time would be about 12 to 14 months, and the preference is to use the rebuilt pump before going to a different model pump.

ORP reported that a decision was made to not use the 242-A Evaporator for the test bed initiative (TBI).

Issues – ORP noted that an update was provided on the failed PB-1 pump issue. ORP stated that a new issue has emerged regarding the slurry line for SL-167 from the 242-A Evaporator to the AW valve pit. The slurry line has not yet passed the five-year leak check, and work is under way to retest the slurry line. ORP noted that preparations are under way to test a companion slurry line SL-168 in mid-November 2018. ORP stated that the overall goal is to run an evaporator campaign before late June 2019, which would eliminate the readiness assessment requirement prior to restart if it has been more than a year since the last campaign. If a campaign is not run by the end of June 2019, a cold test would be done, followed by a hot operation to essentially fulfill the operations frequency requirement.

Ecology asked if it is the secondary containment that hasn't passed the leak test for the SL-167 line. ORP responded that it is the secondary containment. Ecology pointed out that there is a tank regulation for removing a slurry line from service if it doesn't pass the leak test. ORP stated that the plan is to evaluate the companion line SL-168, which has never been used, and if neither of the slurry lines pass the leak test, an alternate plan would be needed to replace the slurry line.

7.0 LIQUID EFFLUENT RETENTION FACILITY/200 AREA EFFLUENT TREATMENT FACILITY (LERF/ETF)

Significant Past Accomplishments - ORP noted that Basin 42 is still out of service, and Basins 43 and 44 contain approximately 5.58 and 7.34 million gallons respectively. ORP reported that the goal for a three million gallon backlog reduction was achieved in FY 2018, and the FY 2019 goal is a four million gallon reduction.

ORP noted that the plant cleanout and corrective maintenance outage began, and it will continue through the first quarter of FY 2019. ORP stated that the electrical outage was needed for some preventative maintenance that required the plant to be completely down from electrical utilities, and the maintenance was completed in about a week.

Significant Planned Actions in the Next Six Months – ORP stated that the plan is to place Basin 42 back in service as soon as next week when field work activities and paperwork are completed. ORP noted that the paperwork will designate the new Basin 42 cover material as equivalent or

that a systematic approach will be taken with the transfer as a result of the anomalies with the leachate levels that occurred when Basin 43 was put back in service after its new cover replacement was completed. A partial transfer into Basin 42 will be done, followed by a pause to allow the level to sit and to observe the leachate levels, and then the transfer will continue until it has been completed. ORP stated that Ecology would be kept informed when Basin 42 is back in service and when the transfer occurs. Ecology requested an email notification the day before the transfer occurs into Basin 42. ORP agreed to send an email to Ecology.

ORP stated that the integrity assessment project for ETF is still under way, and the ultrasonic testing has been completed. The remaining activities to be completed are the leak checks and visual inspections of a certain set of tanks. ORP noted that the Independent Qualified Registered Professional Engineer (IQRPE) will reassess the facility in FY 2019, and the purpose of the integrity assessment project is to gather extra data for the IQRPE.

ORP reported that the 310/311 pipeline project is in the design phase, and a couple of questions have been raised on the leak detection system for PC5000. ORP noted that the 310/311 project falls under ETF, but it touches PC5000, which falls under single-shell tank retrievals. ORP stated that it is requesting a meeting with Ecology to discuss questions on the leak detection system and to allow the design to proceed. Ecology asked for clarification that the leak detector that is being installed at the bottom of PC5000 is a single point leak detector. ORP responded that it is a single-point leak detector, and additional information and some background will be provided to Ecology during the meeting. Ecology asked if the pipeline project is associated with the Class 2 permit modifications that will be submitted at the end of December 2018. ORP responded that it is one of the projects, and there are two other projects that are tied to the Class 2 permit mods.

Ecology inquired about the cover work for Basin 44 in the next six months. ORP responded that the Basin 44 cover design is ongoing, and will be followed by procurement activities. ORP explained that the Basin 44 cover will be similar to Basin 43 and 42, but the same subcontract cannot be used and a whole bid cycle will be needed. ORP stated that the Basin 44 cover project will be expanded to repair some of the components of the leachate system, which may extend the design effort. ORP indicated that the field work for the Basin 44 cover will be done in the later part of FY 2019, but not the first six months. ORP added that the preliminary schedule shows that the Basin 44 cover replacement can be accomplished in FY 2019, and the transfer of Basin 44 into Basin 42 is in support of being ready for the Basin 44 field work.

8.0 TANK SYSTEM UPDATE

Field Activities

Significant Past Accomplishments

Waste Disturbing Activities - ORP stated that there were no waste disturbing activities done through the end of September 2018.

Major Field Activities – ORP stated that it completed two encasement pressure tests, and that it had completed replacement of AZ-102 and AW-103 pumps and associated jumpers. ORP also noted that ten in-pit heater installations were completed, and almost all of the pits now have heaters installed. ORP noted that if a transfer is needed during the winter months, the in-pit

heaters will eliminate the need to build a tent over the pit, which is a significant cost and time savings.

Significant Planned Actions in the Next Six Months

Waste Disturbing Activities – ORP stated that no waste disturbing activities are currently planned.

Major Field Activities – ORP noted that the encasement pressure test of SL-167 was discussed under the issues section of the 242-A Evaporator.

Double-Shell Tank (DST) Integrity

Significant Past Accomplishments – ORP reported that all of the enhanced visual inspections were completed that were planned for FY 2018, and the three ultrasonic tests (UT) that were planned in FY 2018 were also completed.

Significant Planned Actions in the Next Six Months – ORP noted that a comprehensive inspection of tank AY-101 will be done in FY 2019, which has been done for the past several years.

Secondary Liner Integrity – ORP stated that there were no changes to report from last month.

Independent Qualified Registered Professional Engineer Activities (IQRPE)

ORP stated that preparations are being made to start the ETF IQRPE in FY 2019. ORP stated that since the SST IQRPE has been completed, resources are being assigned to the 219-S IQRPE.

9.0 SINGLE-SHELL TANK INTEGRITY

ORP stated that the SST integrity milestone has been completed to conduct an IQRPE integrity assessment report (M-045-91I). ORP noted that this section has been kept separate in the monthly summary report until the milestone was completed, and the plan is to move this section into the Tank System Update. ORP pointed out that the SST IQRPE suggested conducting another integrity assessment in 16 years, and there will be a discussion with Ecology in the next year about holding to the 16-year suggestion or deciding to do something different.

Ecology raised an issue regarding receipt of documents from ORP, specifically in this case, the milestone completion letter, and suggested maintaining a current list of recipients at Ecology to include who should be carbon copied. Ecology noted that documents and reports are being sent over, but they are not always distributed to the appropriate staff members. Ecology stated that it could not locate the 2017 visual inspection report for SST tanks in the AR or IDMS, and requested that ORP send a copy. ORP agreed to send a copy of the report to Ecology.

10.0 IN-TANK CHARACTERIZATION SUMMARY

Significant Past Accomplishments

Reports Completed or Released - ORP noted that the reports that were completed during the month or released in the past three months are listed in the monthly summary report.

11.0 SINGLE-SHELL TANK CLOSURE PROGRAM

ORP stated that there were no changes to any of the milestones listed on page 20 of the monthly summary report.

Significant Past Accomplishments - ORP reported that construction was completed for SX barrier 1 (south barrier) and SX barrier 2 (north barrier). ORP noted that there were a few punch list items, which were completed last week.

Significant Planned Activities in the Next Six Months – ORP stated that the plan moving forward for SX Farm is to survey and start laying gravel this month and next month for the SX expansion barrier. The finish gravel is planned for April 2019, with the intent to pave in May 2019. Ecology stated that a tour was done of the completed SX barriers, which are very impressive.

Ecology commented on a stop work that was issued due to an ill worker. Ecology stated that asphalt had been laid out and was ready for the roller when the worker became ill, and the asphalt was removed and is sitting in a pile next to the barrier. Ecology indicated that the asphalt will probably have to be managed as mixed waste, and suggested there may be a way to plan for this type of situation. Ecology added that there was an understanding for keeping workers safe and why the asphalt was removed, and there was no criticism with the action taken.

Issues – ORP stated that it will be conferring with DOE-RL regarding the first issue listed in today's monthly summary on the Clean Closure Practicality Demonstration for SSTs. ORP stated that it will be scheduling a meeting with Ecology within the next two weeks, and the purpose of the meeting will be to reach an understanding on the Tier 1 Closure Plan SST System.

Ecology initiated a discussion regarding three closure issues that it has identified. Ecology stated that it attended a public meeting in Portland, OR earlier this week, and DOE-RL was making assertions during the closure presentation that would lead the public in a direction that was inconsistent with what had been agreed to with Ecology. Ecology raised three issues to list for the closure section of the TPA monthly summary report, and requested a follow-on action to be added to the action item list.

Ecology identified the three issues as follows:

- 1) DOE needs to follow the Hanford Federal Facility Agreement and Consent Order (HFFACO/Tri-Party Agreement) Appendix H and the agreement made with the Tri-Parties to engage the Nuclear Regulatory Commission (NRC) in the SST WMA-C closure process. Ecology noted that DOE has submitted closure plans regarding the closure of WMA-C, but no information has been received from DOE-RL indicating the intent to follow the agreement to have the NRC review the SST WMA-C closure process.

2) Resolve TPA Appendix H and I expectations between DOE, Ecology and EPA as an action item. Ecology stated that Appendix I explains how soil closure decisions would be handled for the SST system, and the Tri-Parties have worked on how to implement Appendix I over the past 15 years. Ecology stated that during the public meeting in Portland, the presentation DOE gave did not accurately represent Appendix I and misrepresented to the public the processes for soil closure decisions.

3) Ecology noted that during a meeting two or three years ago with the Low Level Waste Disposal Facility Federal Review Group (LFRG), the chairman indicated that DOE was going to use the tank closure waste management EIS as a composite analysis to meet closure decisions or the waste classification of the residuals remaining in the tanks. Ecology added that DOE has a presentation in its records that indicates the tank closure waste management EIS will be used as a composite analysis. Ecology stated that during the public meeting in Portland, DOE presented a different plan for the composite analysis that has not been discussed with Ecology. Ecology requested an understanding of what DOE is using as the composite analysis and what is planned to be issued in 2020. Ecology added that it has attended a meeting on a cumulative impact evaluation (CIE), which Ecology has expressed concerns about, and there is a concern that DOE-RL is intending to use a CIE as a composite analysis.

Ecology pointed out that it is the lead agency for SST closures, and the goal is to work together to reach agreement on how to close, rather than presenting or misrepresenting to the public agreements that have already been made. Ecology emphasized that it has worked with DOE, and its goal is to continue working with DOE in accordance with the TPA. Ecology stated that the intent is to finish the closure plan for the SST system and support the Waste Incidental to Reprocessing (WIR) analysis that DOE is doing, but it is difficult to do when Appendix I is being misrepresented. Ecology classified the presentation at the Portland meeting as disturbing.

Ecology requested an action item to schedule a meeting with ORP at a level where decisions could be made and resolve the intent of Appendix H and I, and to include the three issues in the next monthly summary report. ORP asked if Ecology's action would include making changes to Appendix H and I that have stalled. ORP noted that the changes to Appendix H and I are being looked at under the TPA five-year review, and asked if that would be part of the discussion. Ecology responded that it would be willing to discuss the changes to Appendix H and I, but noted that the parties held significantly differing positions, which ended the discussions. Ecology stated that ORP would have to request the meeting to discuss changes to Appendix H and I since Ecology has signed a HFFACO.

ORP Action: ORP to schedule a meeting with Ecology to discuss how TPA Appendices H and I are being implemented for soil closure. DOE's plan for composite analysis to meet tank closure decisions and engaging the NRC in the review of the WMA-C SST closure process will also be discussed.

12.0 SINGLE-SHELL TANK RETRIEVAL PROGRAM

ORP stated that the retrieval data report (RDR) for C-105 is on schedule to be completed and released in June 2019.

13.0 TANK OPERATIONS CONTRACT OVERVIEW

ORP reported that excellent work was achieved for base operations (5.1) during August 2018, in terms of accomplishing more work than scheduled and costing less than originally planned. ORP noted that the overall cost and schedule performance for FY 2018 has not been as good as the month of August. ORP referred to bullet No. 2 under schedule variance, and pointed out that the word "liner" replacement for LERF Basin 42 will be corrected to read "cover" replacement. ORP stated that there was a large positive cost variance of \$25 million, which reflects reaching the end of a long contract modification process. ORP noted that the use of self-contained breathing apparatus (SCBA) increased the cost of doing everything related to the base operations scope, and there was a negative cost variance for a long period of time. ORP stated that the work has since been re-estimated, and the appropriate contract modification has been done to bring the cost variance up to date.

ORP noted that the EVMS data for retrieve and close SSTs (5.2) is discussed under the CD portion of today's minutes.

ORP stated that the numbers are relatively small on a monthly basis for waste feed delivery/treatment (5.3) compared to base operations. ORP reported that the TSCR demonstration project and the waste feed delivery upgrades were transitioned from expense work to capital assets project work. ORP noted that some of the funding transitions have contributed to the unfavorable cost variance, but the work is now appropriately located.

ORP stated that the unfavorable schedule variance reported under Treat Waste (5.5) was mainly due to the delay in awarding the TSCR subcontract from June 2018 to July 2018, which caused a slight delay with the 30 percent design. ORP noted that as previously discussed, the 30 percent design was completed in September 2018. ORP added that the schedule performance is starting to recover and there will be more alignment going forward. ORP stated that the positive cost variance was due to the ramp-down efforts associated with design for the LAWPS permanent facility, which cost less than originally estimated.

CONSENT DECREE MONTHLY SUMMARY REPORT REVIEW

1.0 CONSENT DECREE MILESTONE STATISTICS/STATUS - CONSENT DECREE REPORTS/REVIEWS

The Consent Decree (CD) monthly summary report was not available for today's meeting, and ORP provided a verbal update on the facilities. ORP distributed a new schedule for the PMMs and quarterly milestone review meetings for calendar year 2019, which was agreed to by ORP and Ecology. The PMMs will be held the first Thursday of each month, which increases the number of PMMs from eight to 12. During the month that a quarterly milestone review meeting is scheduled, the PMM will also be held. The new schedule will allow the CD report to be completed and available for the PMM.

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

Action No. 1 (WTP-18-07-01)

An ORR strategy briefing was provided to Ecology. This action is closed.

Action No. 2 (WTP-18-08-01)

A briefing on the FY 2019 spend plan was provided to Ecology. This action is closed.

Action No. 3 (WTP-18-09-01)

ORP stated that the environmental group has the different items in the schedule that need Ecology approval. Ecology agreed to close this action. This action was closed.

2.0 SINGLE-SHELL TANK RETRIEVAL

Significant Past Accomplishments - ORP reported on the construction activities that have been completed. ORP stated that the remaining C Farm tank layup activities were completed. The riser investigations on four of the A Farm tanks were completed, and the ventilation system will be tied into the risers. The engineering evaluation was completed on the high definition videos of tanks A-104 and A-105. Three boreholes at A-104 and A-105 were completed to a depth of 250, 280 and 295 feet, and two more are planned to characterize the soil underneath those two tanks. The POR466 water manifold and the POR412 conversion valve box were installed in AX Farm, and work is under way to install piping to those portables.

Ongoing Activities - ORP reported that part of the ongoing activities, along with the electrical infrastructure, is installing north, south, east and west backbones. Riser investigations are being done on AX-101 and AX-103 in the effort to remove the thermocouples, and there has been some slight movement, but it is not yet known whether it will result in complete removal of the thermocouples. One of the thermocouples had no movement, and one thermocouple is left to be determined how it will be worked on to get it to move. Installation is continuing with the A Farm ventilation system exhausters.

Significant Planned Activities in the Next Month – ORP stated that installation of the AX-102 pit 02C ERSS system is planned to be completed. Installation of the A Farm exhausters and the

diversion box to AX-102 will be completed. ORP noted that the AX-01A pit cleanout will be completed, which is the last pit to be cleaned out. The conduit installation on the east/west electrical system should be completed.

Issue – The remaining issue is the use of self-contained breathing apparatus (SCBA) by the tank farm workers.

3.0 TANK WASTE RETRIEVAL WORK PLAN (TWRWP) STATUS

There were no updates to report on the TWRWPs.

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

ORP stated that for the month of August 2018, there was a favorable schedule variance and an unfavorable cost variance. The positive schedule variance of \$7.2 million was the result of a change in the funding type for the SX barrier work, which moved from a general plant project fund to an expense fund. The negative cost variance of \$363,000 was due to a shortage of subcontractor crafts, which resulted in more overtime.

5.0 WASTE TREATMENT AND IMMOBILIZATION PLANT PROJECT

ORP stated that the U.S. Army Corps of Engineers (USACE) parametric analysis for the Pretreatment (PT) and High Level Waste (HLW) facilities is still in internal management review. ORP noted that a workshop was held with Ecology on October 4, 2018, to discuss the results of the report and a path forward for PT and HLW. Ecology stated that another workshop has been scheduled for later this month or early November 2018.

ORP reported that the external review of Bechtel's Integrated Safety Management System (ISMS) phase 1 program development was completed and received an excellent review. ORP noted that phase 1 is the development of the program for readiness and does not include implementation.

ORP stated that Bechtel is working on the replan schedule for WTP, which is mainly for the Direct Feed Low Activity Waste (DFLAW) project. The schedule should be implemented by the end of October 2018, and it will represent the new baseline schedule moving forward. ORP stated that some of the details for the commissioning area, which is farther out in the schedule, will continue to be worked for the next three or four months and added to the schedule. Ecology asked if ORP anticipates another contract modification to help shift the new baseline schedule. ORP responded that a contract modification won't be needed because the contract milestones and associated activities are still being maintained in the schedule.

ORP pointed out that the EVMS narrative description was removed from the CD monthly report, as discussed during the last meeting. Ecology acknowledged the removal and stated that it was still in agreement with removing the EVMS description. ORP noted that there was an overall unfavorable schedule variance of \$2.1 million, but it is based on the old baseline and is not relevant since the replan schedule is being implemented.

ORP noted that part of the negative schedule variance associated with the LAW facility was due to early completion of the truck bay roofing and installation of insulation and the carbon dioxide gas system. ORP stated that one area that is contributing to the negative schedule variance is delays with startup testing in LAW, and some of it is due to flushing of the instrument air pipes and changing out a failed pump. ORP added that there has been a lot of turnover from construction to startup, and the eight-week and three-week walk-downs are moving forward. Ecology asked if ORP has a recovery plan to address the issues that are causing delays. ORP responded that the new baseline schedule has rearranged the order for some of the activities, and until the performance against the new schedule is done, it won't be known whether activities are behind or on schedule.

Ecology requested an action item for a detailed presentation on the baseline after it has been issued, with a particular focus on any significant changes to the order of activities that could affect permitting. ORP responded that the replan does not affect the contract milestones or their due dates, and the replanning is a reshuffling of some of the order of operations that will not affect permitting. ORP cited an example of a change to the schedule is the delay in delivery and installation of underground piping. The decision was made since there would be large equipment trucks driving over the areas to install tanks and racks and concrete, and it made sense to delay the pipe installation. ORP added that there are several activities that were moved in the schedule, based on a similar logic, and many of those activities are associated with the Effluent Management Facility (EMF). ORP stated that a change in the build strategy for EMF has been revised, and the EVMS numbers for EMF do not reflect that change. ORP cited another example of completing more work in the cells by hanging racks and piping before placing the big vessels, which will limit the room to work.

ORP stated that there were also some inadequacies in the schedule that it has been working with Bechtel to address, such as the large volume of accounts that were level of effort (LOE) accounts. ORP explained that with an LOE account, it always reflects a 1.0, whether it's behind or ahead of schedule. ORP noted that some LOE accounts are needed in certain areas, but Bechtel needed to break down the quantity of LOE accounts to true up the schedule and reflect more detail. ORP stated that going forward, the cost and schedule performance will reflect a more accurate performance. ORP reiterated that there will be no change to any of the milestones, and Bechtel will not be getting any relief, which would require a request for equitable adjustment (REA). ORP added that the variance is being reset to March 2018, when Bechtel drafted its replan, and any variance that occurred between March and now will be reflected in the cost and schedule performance. ORP stated that it has been working with Bechtel to ensure their schedule is improving before they were allowed to submit the replan.

Ecology stated that this replan is somewhat different from past replans in that it is tracking business. ORP agreed with Ecology's statement. ORP added that there will be more lines of activity detail in the replan, with the same work scope and same time frames, but they will be in a different order. ORP stated that there will also be a significant change over the next two to three months in the EVMS numbers.

ORP returned to discussion of the delays associated with EMF, and stated that there are several delivery delays with pipes, valves, racks, and steel. Ecology asked if they were managed delays. ORP responded that they were not managed delays, and it is related to issues with the vendors. ORP noted that Bechtel has done everything they could do to work with the vendors to improve,

but procurements will continue to be a struggle for EMF. ORP stated that the current issue is associated with bulk procurements and with several vendors, whereas in the past it was with a single piece of equipment such a vessel. ORP added that most of the schedule variance is driven by the planned delay of installation of the Liquid Effluent Retention Facility (LERF) waste transfer piping.

ODOE asked if the bulk procurement delay is associated with importation of steel. ORP responded that it is not due to steel imports, but is related to the ability of the vendor to produce the pipe spools out of the shop. ORP noted that the HLW facility experienced the same issue about six or seven years ago with getting pipe spools from the vendor. ORP added that Bechtel is using different manufacturers, but is encountering the same problem. Ecology asked if Bechtel has a team in the vendor shops. ORP responded that Bechtel personnel have been embedded in the shops nonstop, and company presidents have also gone out to the vendor shops. ORP noted that one of the vendor shops has expanded its capacity to increase and improve their efforts.

ORP stated that the Balance of Facilities (BOF) continues to struggle with its schedule, in particular with the steam plant startup. ORP stated that the durations in the schedule don't support the challenges that are being encountered with equipment. ORP noted that there are no pressing issues that cause anything to be on hold, but it is a matter of working through issues as they are identified. ORP added that the key focus in BOF is to be able to support LAW startup, and no needed commodities are being held up for LAW. ORP pointed out that the diesel fuel oil tank was filled, and the system is going through final testing to support the steam plant.

6.0 PRETREATMENT FACILITY

ORP noted that as stated above, the USACE parametric analysis for the PT and HLW facilities is still in internal management review. ORP reported that the final letter from Bechtel is expected next week regarding technical issue T5 for erosion/corrosion. ORP stated that technical issue 4 (T4) for vessel mixing has been agreed to for the high-solids vessel, but the validation method on the calculation for the low solids vessel is still in review by the independent review team. ORP indicated that comment resolution is still continuing and it may go into November 2018 before it is resolved. Ecology asked if the issue was the math in the calculations or how the calculations are derived. ORP responded that the comment resolution is associated with the formulation and the rationale for the calculation.

7.0 HIGH-LEVEL WASTE FACILITY

ORP noted that a briefing was provided to Ecology on the replan for HLW, and USACE parametric analysis for the PT and HLW facilities is still in internal management review.

8.0 LOW-ACTIVITY WASTE FACILITY

ORP reported that several walk-downs for turnover to the startup organization are continuing in the LAW facility. ORP noted that startup testing has been moving slower than expected, but after some of the walk-downs are completed within the next two weeks, the pace of startup testing is expected to pick up.

ORP stated that the critical path for LAW is the melter power supply procurement, installation and testing, and it is behind schedule. ORP noted that the melter was installed, but had to be sent out for refurbishment due to issues with the attached piping. The melter is still with the vendor and was supposed to be returned earlier this month, but factory testing has been delayed due to the testing staff member becoming ill and the need to bring another staff member on board to conduct the testing. The schedule for receipt of the melter has been pushed into November 2018, and then it will take about two months to install the melter and connect piping, hoses and electrical connections.

Ecology asked if ORP has recalculated its project float, noting that it had been about 42 to 44 days. ORP responded that it would be waiting for the project float time in the replan schedule.

ORP stated that the other critical path in LAW is the instrumentation that has been upgraded to safety significant as a result of the Documented Safety Analysis (DSA). ORP noted that the pressure regulator for the offgas system has been a difficult procurement and has become a key critical path for the offgas system.

ORP noted that a briefing was provided to Ecology on the readiness strategy, and there are readiness workshops under way at DOE-Headquarters. ORP stated that an independent team from DOE-HQ will conduct an onsite readiness assessment, and discussions are under way with the team.

9.0 BALANCE OF FACILITIES

ORP reported that the EMF evaporator was lowered into the evaporator shell, and expressed appreciation to the Ecology permitting team for their efforts that allowed that activity to be completed. ORP noted that there were issues with the crane, and the D-Mag crane was moved from another area and used to lower the evaporator into the shell. ORP reported that the special protective coatings were completed in the C5 evaporator cell.

ORP stated that the special protective coatings are being applied in the EMF low point drain area after the stainless steel liner plate was installed. Installation of the stainless steel liner has been completed in the evaporator feed tank area, and a construction lift platform is being built above the ring beams that will protect the ring beams and allow the workers to install piping on the walls.

ORP stated that the steel roof for the C3 area was built off to the side of the EMF footprint, and all the fire protection piping and several other commodities were installed. ORP stated that at the end of September 2018, the C3 roof was lifted into place. ORP pointed out that the C3 cell is full of piping, racks, and pumps, making it quite challenging to work in the area, and building the roof off the footprint provided a four-month improvement in the schedule. ORP noted that work in the C3 cell would have had to shut down if the roof was built over the cell. ORP stated that a large leveler with hydraulics was used to balance the roof when it was being set in place. ORP added that the area will be weathered in before winter, and noted that efforts will get under way to install the roof over the evaporator so it can be weathered in for the winter.

ORP stated that work is ongoing with the chemical processes for the various water systems in BOF, and getting the right chemical balance for the clean water system (PCW) for the cooling tower is currently under way. ORP stated that the piping in the water system has to be flushed

and then cleaned with chemical treatments to remove any biological agents, and then the chemistry has to be established that will be in the piping system throughout operations. ORP noted that the piping has been initially flushed. ORP stated that the piping feeds into a lot of different systems throughout the plant, and it is important to establish the right chemistry in the pipes.

ORP reported that there are two slight delays associated with the chiller compressor plant. The testing set points and procedure issues are being worked through, along with some of the software work for the air compressors. The plant is also waiting for the PCW system to allow the compressors and the chillers to be run.

ORP reported that efforts are under way with the steam plant, which is needed for the balancing of all the HVAC units. ORP noted that the diesel fuel oil facility tank was filled, and preparations are under way for startup and testing of the boilers. ORP stated that initial notification has been given through the air permitting side, and Ecology is also being kept up to date.

ORP stated that the glass former system and the ammonia system have been turned over for startup testing. ORP noted that the ammonia system was one of the most completed systems going into startup testing with almost no B items. There was a slight wait time for getting the UL testing scheduled since there is a limitation on personnel that can perform UL inspections.

10.0 ANALYTICAL LABORATORY

ORP reported that the LAB is moving along at a quick rate, with 31 of 35 systems turned over for startup testing. ORP noted that the four remaining systems are part of the communication systems and they won't be turned over until a later time period. ORP stated that currently bulk testing is under way in the LAB, with the focus on the ventilation and vacuum systems.

ORP stated that methods development continues at the offsite lab located at Columbia Basin College (CBC). The staff continue to work through the procedure specifications, and they are evaluating whether there are opportunities to reduce the amount of analysis needed. ORP stated that as the analytical methods are approved and the procedure times are determined over the next year, the focus will turn to equipment sizing.

ORP/Ecology TPA and CD Agreements, Issues, and Action Items –October 2018

Agreements:

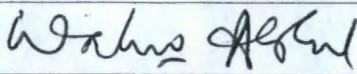
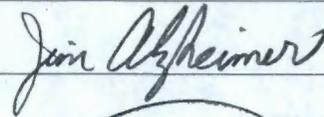
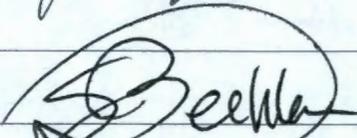
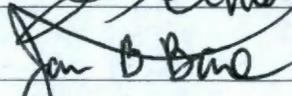
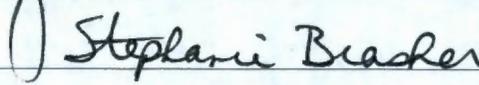
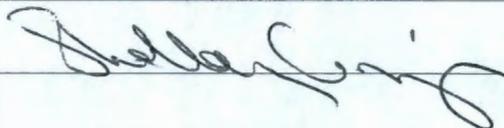
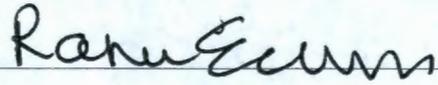
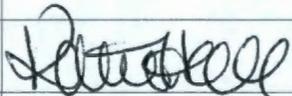
1. Per an Ecology standing request (4/21/2016), ORP agrees to include any written directives given by DOE to the contractors for work required by the CD in future quarterly CD Reports (see CD Section IV-C-1-e).
2. The ORP and Ecology PMs have developed, signed, and entered an outline for the CD Tank Completion Certification into the TPA Administrative Record. A briefing to senior management will occur if any follow-on actions arise.
3. Ecology and ORP have agreed to move the TPA/CD PMM meeting to the first Thursday of the month starting in January 2019. The TPA and CD monthly reports distribution will occur by the end of December via link to the Admin Record. This will be the format for report distribution and monthly meetings going forward for calendar year 2019.

Issues:

ORP/Ecology TPA and CD Agreements, Issues, and Action Items –October 2018

#	Action ID Start Date	Action	Updates / Needs for Closure	Actionee(s)	Status/ Date Closed
1	WTP-18-07-01 07/19/18	ORR Strategy briefing to Ecology (Jay Decker)	Delmar's group will coordinate.	Wahed Abdul	Open
2	WTP-18-08-01 08/16/18		FY 2019 HLW Spend Plan. Identify any changes in execution sequence.	Wahed Abdul	Open
3	WTP-18-09-01 09/19/18	Ecology to provide ORP with information at a level appropriate to inform ORP for formal approval of WTP commissioning		Dan McDonald	Open

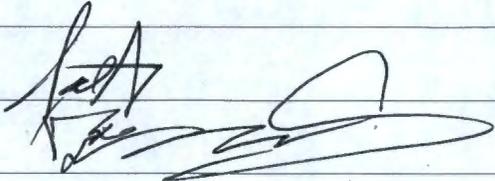
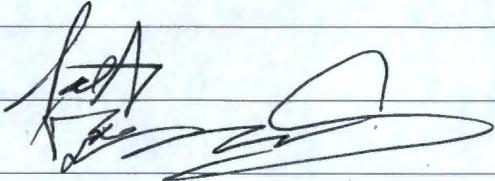
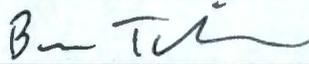
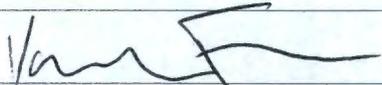
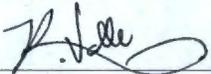
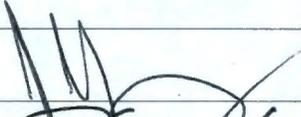
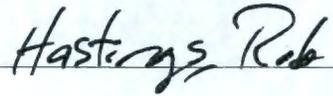
October 18, 2018
Office of River Protection
Tri Party Agreement Consent Decree Meeting

PRINT NAME	SIGN NAME	ORG
Abdul, Wahed		ORP
Alzheimer, Jim		ECY
Barnes, Mike		ECY
Beehler, Steve		ORP
Bovier, Jan		ORP
Brasher, Stephanie		MSA
Brown, Dennis		ORP
Burnett, Kaylin		ORP
Cameron, Craig		EPA
Carlson, Annette		ECY
Cimon, Shelley		OR State
Decker, Jay		ECY
Diediker, Janet		ORP
Einan, Dave		EPA
Evans, Rana		ORP
Fletcher, Tom		ORP
Gao, Tracy		ECY
Grindstaff, Joni		ORP
Hall, Katie		ECY
Hernandez, Paul		ORP
Johnson, Jeremy		ORP
Jones, Mandy		ECY
Joyner, Jessica		WRPS

October 18, 2018
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PRINT NAME	SIGN NAME	ORG
Keith, Colleen		ORP
Kemp, Christopher		ORP
Knox, Kathy	Kathy Knox	Court Reporter
Lobos, Rod		EPA
Lowe, Steven		ECY
Lucatero, Yoana		ECY
Lyon, Jeffery	Jeffery Lyon	ECY
Martell, John		DOH
Mathey, Jared		ECY
McDonald, Dan	Dan McDonald	ECY
Menard, Nina		ECY
Mulkey, Charles		WRPS
Parker, Dan		WRPS
Pfaff, Stephen H	Stephen H Pfaff	ORP
Pomiak, Andrew	Andrew Pomiak	ECY
Price, John		ECY
Rambo, Jeffrey	Jeffrey Rambo	ORP
Richardson, John		ECY
Rochette, Beth		ECY
Schleif, Stephanie	Stephanie Schleif	ECY
Schmidt, John		DOH
Serafin, Shane		ORP
Skorska, Maria	Maria Skorska	ECY

October 18, 2018
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PRINT NAME	SIGN NAME	ORG
Smith, Alex		ECY
Smith, Sahid		ORP
Stewart, Dustin		ORP
Trenchard, Glyn		ORP
Trimberger, Bryan		ORP
Turner, Michael		MSA
Turner, Vanessa		ORP
Utley, Randell		DOH
Valle, Richard		ORP
Van Mason, Eric		WRPS
Walmsley, Mign		ECY
Wang, Oliver S		ECY
Whalen, Cheryl		ECY
Whitelely, Craig		ORP
Wold, Kristi		ECY
Yasek, Donna		BNI
Young, Jason		ORP
		ORP

