

***Office of River Protection
Project Managers' Meeting Minutes***

March 7, 2019

2440 Stevens Center
Richland, Washington

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CONCURRENCE SIGNATURES

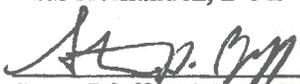
The undersigned TPA Project Managers (or their delegates) indicate by their signatures that these meeting minutes reflect the actual occurrences of the above-dated Tri-Party Agreement Project Managers' Meeting.

N/A - transferred
Jan Bovier, DOE-ORP Date: _____


Kaylin Burnett, DOE-ORP Date: 4/11/19

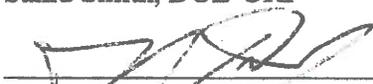

Janet Diediker, DOE-ORP Date: 4/11/19

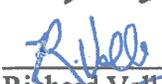

Paul Hernandez, DOE-ORP Date: 4/10/19

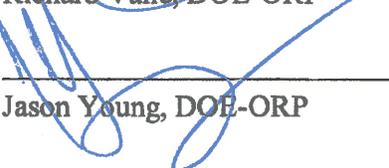

Steve Pfaff, DOE-ORP Date: 4/11/2019

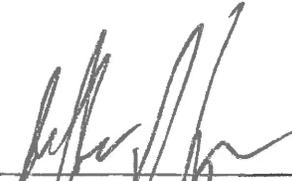

Jeff Rambo, DOE-ORP Date: 4/10/19


Sahid Smith, DOE-ORP Date: 4/11/19


Dustin Stewart, DOE-ORP Date: 4/10/19


Richard Valle, DOE-ORP Date: 4/10/2019


Jason Young, DOE-ORP Date: 4/15/19



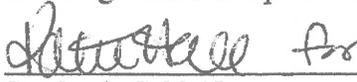
Jeff Lyon
Washington State Department of Ecology

Date: 4/19/19



Dan McDonald
Washington State Department of Ecology

Date: 4-17-19



Stephanie Schleif
Washington State Department of Ecology

Date: 4/16/2019

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TERMS

APR	air-purifying respirator
BNI	Bechtel national, Inc.
BOF	Balance of Facilities
CD	consent decree
DFLAW	direct-feed low-activity waste
DOE	U. S. Department of Energy
DST	double-shell tank
Ecology	Washington State Department of Ecology
EMF	Effluent Management Facility
ETF	Effluent Treatment Facility
EVMS	earned value management system
HLW	High-Level Waste (Facility)
LAB	Analytical Laboratory
LBL	LAW Facility, Balance of Facilities and Lab
ORP	U. S. Department of Energy, Office of River Protection
PMM	project manager meeting
SCBA	self-contained breathing apparatus
SST	single-shell tank
TBI	Test Bed Initiative
TPA	Tri-Party Agreement
TSCR	tank-side cesium removal
UT	ultrasonic testing
WRPS	Washington River protection Solutions LLC

TRI-PARTY AGREEMENT MONTHLY REPORT

1.0 ADMINISTRATIVE ITEMS/MILESTONE STATUS

Upcoming Meetings

The next project managers meeting (PMM) is scheduled for Thursday, April 4, 2019, from 9:00 a.m. to 11:30 a.m. at the U. S. Department of Energy (DOE), Office of River Protection (ORP) building 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 for January 2019, which cover progress during the period of January 1-31, 2019, and the earned value management system (EVMS) data for December 1-31, 2018.

Tri-Party Agreement Milestone Status

ORP reported all TPA milestones reported on were either on schedule or in abeyance (see pgs. 3-5 in the monthly TPA report).

Tri-Party Agreement and Consent Decree Agreements, Issues and Action Items

(See agreements, issues and action item table):

Action No. 1 (TF-16-11-04): ORP reported there was no change in the status of this action item and it remains on hold.

Action Item No. 2 (TF-18-07-01): ORP stated there was no change in the status of this action item from the previous month and it remains open.

Action Item No. 3 (TF-18-10-01): ORP reported there was no change from the January date and this action will remain open. The Washington State Department of Ecology (Ecology) reminded ORP they are still expecting one more engineering meeting on disposition and closeout of the media in the columns.

Action Item No. 4 (TF-18-10-02): ORP reported meetings are continuing with Ecology and the Washington River Protection Solutions (WRPS) and this action will remain open.

Action Item No. 5 (TF-19-01-01): ORP reported the latest schedule has a completion date of July 2021, but that date will most likely be evolving over time. ORP will Ecology to determine Ecology's expectations for deliverable and closure. This item remains open.

Action Item No. 6 (TF-19-01-02): ORP reported a meeting with Ecology was held on February 28, 2019. Ecology requested further information on original construction testing. ORP has submitted request to WRPS. Item to remain open.

Action Item No. 7 (TF-19-02-01): ORP reported there is a meeting tentatively scheduled for March 14, 2019 to brief Ecology on tank integrity program and schedule. This item remains open.

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2.0 SYSTEM PLAN

ORP stated milestone M-062-45 negotiations are currently extended until March 18, 2019; however, ORP is not certain they will be successful in completion by that date. A draft has been prepared requesting further extension, if needed. Negotiations are continuing relative to ORP-11242, River Projection Project System Plan, Rev. 8, with discussions starting next week (week of 3/11/19) on ORP-11242, System Plan, Rev. 9.

3.0 ACQUISITION OF NEW FACILITIES

ORP reported there has been no change in this activity and all milestones continue in Abeyance.

4.0 SUPPLEMENTAL TREATMENT AND PART B PERMIT APPLICATIONS

ORP reported there was no change in the status of the Supplemental Treatment and Part B Permit Applications and all milestones continue in Abeyance.

5.0 TANK-SIDE CESIUM REMOVAL SYSTEM

Significant Past Accomplishments

ORP noted the Tank-Side Cesium Removal System (TSCR) design was 60% completed in January 2019. A waste feed delivery system 60% design review was initiated in January 2019.

Significant Planned Actions in the Next Six Months

ORP reported the TSCR project team met with the project management risk committee (PMRC) to discuss moving forward with the next phase of the critical decision process, which is fabrication. That meeting went well, and ORP has not received any input back from the PMRC of additional information needed from them, therefore the critical decision process is continuing. ORP stated that design on the tank farm upgrades will start in March, and be consistent with actions performed in the past. Ecology will be invited to participate in those activities. Work is continuing on the ion exchange column design and in April ORP will work towards achieving the 90% design on the TSCR. ORP also noted that funding for these activities was secure and no delays were forecasted.

Issues

ORP noted under issues, a note was added to point out the ongoing issues with the Hanford Site ambient air boundary currently being discussed with Ecology. ORP has been informed by Ecology that no further air permits will be processed until this issue is resolved, which has the potential to delay TSCR and other projects. Ecology inquired whether ORP had a date for when things are going to start being delayed if the air issues are not resolved. ORP responded it depended on what project; however, as for TSCR there is no date as to the impacts since there have not been sufficient discussions on the air-permitting side yet. For further clarification, ORP stated in a letter sent to Ecology there would be potential impacts to TPA tank waste retrieval milestones if a permit was not received for the A and AX tank farm exhausters by May 1, 2019.

TRI-PARTY AGREEMENT MONTHLY REPORT

Without the proper ventilation, other work that was planned concurrent to retrieval could not be performed. Ecology asked about the relationship between the air permit and any potential delays for TSCR. ORP responded that it had to upgrade the existing AP farm air permit in order to be able to conduct activities in more than two tanks at once. The existing permit would restrict this.

6.0 242-A EVAPORATOR STATUS

ORP noted the Evaporator Campaign EC-10, a cold run followed by a hot run, is on schedule for June 2019.

Significant Past Accomplishments

ORP reported the PB-1 spare parts were successfully procured and are currently being installed. This is considered high-risk, with contamination control as a priority, and the process is being carefully executed.

Significant Planned Actions in the Next Six Months

ORP reported the design of the new slurry lines has been initiated.

Issues

ORP noted the slurry transfer line for SL-167 from the 242-A Evaporator to AW Tank Farm valve pit did not pass the encasement last leak check that was performed. ORP also stated they are working on what they hope is the final round of responses to Ecology on an Independent Qualified Registered Professional Engineer (IQRPE) issue from 2016 and will email the draft responses to Ecology before they are formally transmitted via letter.

7.0 LIQUID EFFLUENT RETENTION FACILITY AND 200 AREA EFFLUENT TREATMENT FACILITY

ORP reported on the Liquid Effluent Retention Facility (LERF) basin volumes as follows:

- Volume was transferred from Basin 44 into Basin 42. The 2 Mgal in Basin 44 is a decrease from last month. The 5.54 Mgal in Basin 42 is an increase from last month. At the time of publication of this report that transfer was ongoing and, as of this date (March 7, 2019), has been completed.
- Waste is actively being sent to Basin 43: one tank of AZ-301 condensate, two tanker truck shipments of the Mixed Waste Trench waste and some miscellaneous waste streams.

Significant Past Accomplishments

ORP reported they have not processed any of the LERF inventory through the Effluent Treatment Facility (ETF) for 2019. The current schedule shows processing will start in the beginning of April 2019. ORP reported a small leak in the LERF 44 catch basin was repaired, which corresponds to one of the issues (see below under issues). Transfers resumed after the repair. ORP completed demolition of the three surge pumps and related equipment. Though there

TRI-PARTY AGREEMENT MONTHLY REPORT

was only failure of two pumps, ORP replaced all three; as well as completed all the installations of the mechanical pieces of equipment, the compressor, the tank and the dryer for the air compressor upgrade project.

Significant Planned Actions in the Next Six Months

ORP reported that the clean out and corrective maintenance outage is continuing and is tentatively scheduled for completion the first week of April 2019. ORP reported they are completing the transfer of Basin 44 to Basin 42, which will show completed in the next month's reporting. The ETF air compressor upgrade will show completion in the next reporting period and will be turned over to ETF Operations. The 60% design review for the Brine Stabilization will be completed by the end of March and ORP will meet with Ecology in April to be consistent in sharing information.

Issues

ORP reported two surge pumps failed and for efficiency the decision was made to replace all three pumps within the system. Ecology asked what caused the pumps to fail and ORP responded that they overheated.

8.0 TANK SYSTEM UPDATE

8.1 Double-Shell Tank Integrity

Significant Past Accomplishments

ORP reported the AY-101 annulus comprehensive inspection was completed in January 2019, and is currently with WRPS for review. Ultrasonic testing (UT) inspection for tank AP-107 was also completed in January.

Significant Planned Actions in the Next Six Months

ORP reported UT inspection of 241-AP-108 as of this reporting is complete and will be followed by UT on tank 241-AP-102 (annulus floor only). Nine enhanced annulus visual inspections are planned for Fiscal Year (FY) 2019. ORP reported they plan to procure/design annulus floor cleaning technology in FY 2019 to clean the annulus floor. Ecology enquired how far along ORP was in the process of the design of the floor cleaner. ORP responded 0%, however; since this is not a huge technical lift, ORP is very confident this will be accomplished in the required time period.

8.2 Single-Shell Tank Integrity

Significant Past Accomplishments

ORP completed seven visual inspection so far in FY 2019.

Significant Planned Actions in the Next Six Months

ORP reported there are five planned visual inspections in the next six months, and half of those are completed. ORP plans to perform three miscellaneous underground storage tank (MUST) visual camera inspections in FY 2019 (tanks have yet to be identified). Ecology enquired about the criteria for identifying MUSTs. ORP responded that it is intrusion, some level changes are

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noticed that are steady or unsteady over time and those are the tanks being prioritized for visuals. ORP stated they are just finishing the TFC-ENG-Chem D-42, *Tank Leak Assessment Process*, on tank T-101 and will report the results to Ecology and then will move on to tank T-103.

8.3 Independent Qualified Registered Professional Engineer Activities

Double-Shell Tank System - ORP noted there was nothing new to report.

Single-Shell Tank System - ORP noted there was nothing new to report. Ecology noted a letter was sent to DOE regarding the Single-shell tank (SST) IQRPE assessment. Ecology concurs with the next assessment being conducted in 16 years; however, they identified a desired time period for the completion of initial visual inspection for all SSTs. The objective is to establish a baseline of current conditions in a timely manner. ORP responded that a draft TPA Change Control Form with detailed scheduled inspections is in progress. After those milestones are agreed to, ORP will status in this meeting.

242-A Evaporator - ORP noted there is nothing new to report.

ETF - ORP reported the kick-off meeting with Meier Architecture Engineering, the company awarded the ETF IQRPE integrity assessment contract, was held in January. Meier also toured the facility as part of the assessment in January.

219-S Tank System - ORP reported the contract for the 219-S Integrity Assessment Project was awarded to Meier Architecture Engineering. They are currently performing leak tests on the tanks and will continue onto UT once the visuals are completed and analyzed.

9.0 IN-TANK CHARACTERIZATION AND SUMMARY

9.1 Reports Completed or Released

ORP reported two reports were completed in January 2019 and six were released.

9.2 Tank Sampling

Significant Past Accomplishments

ORP reported the tank AP-107 phase 2 grab sample was completed and shipped to the Pacific Northwest National Laboratory, with results sent to Ecology for their review.

Significant Planned Actions in the Next Six Months

ORP reported tank A-105 grab sampling is planned for February 2019, and then tank SY-102 and tank AW-103 after that. ORP noted that there will be some sampling involved in the repurposing of tank AP-106, which is scheduled for summer 2019.

9.3 Best Basis Inventory Updates

ORP stated two tanks were completed in January and three are planned in February. Ecology asked a question on the Best Basis Inventory (BBI) for tank AW-102, to help them understand the deep tank for the evaporator and if it plays a role in preparing feed through in the waste and what it is. BBI inspections have to be done on a regular basis, it is a forced schedule. ORP

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replied that the inspections are done per a set schedule, but will email Ecology with a more detailed response to their question.

10.0 SINGLE-SHELL TANK CLOSURE PROGRAM

ORP noted there were no changes to the status of these listed milestones. ORP reported they are working with Ecology on a TPA Change Control Form on the dates for the closure of C Tank Farms.

Significant Past Accomplishments

ORP noted there were no changes to this activity.

Significant Planned Activities in the Next Six Months

ORP reported they have received Ecology's comments on the WMA-C Tier 2 Closure Plan and they are working on dispositioning those. ORP will submit the Tier 3 and Tier 1 to Ecology very soon. Permitting workshops are scheduled to start this month (March), which will basically be going over these same three closure documents and addressing any additional concerns.

ORP reported that gravel is being installed in the SX tank farm for the barrier in preparation for placing asphalt in the April/May timeframe, weather permitting.

Issues

ORP reported the additional supplemental information that Ecology had requested on the tank closure practicability demonstration for C Farm, requested supplemental information was submitted on January 24, 2019, and they are awaiting Ecology's comments.

11.0 SINGLE-SHELL TANK RETRIEVAL PROGRAM

ORP reported there were no changes to TPA milestone M-045-86, which remains on schedule and milestone M-045-70, which remains at risk. ORP also noted the retrieval data report for SST C-105 is progressing satisfactorily.

12.0 TANK OPERATIONS CONTRACT OVERVIEW

WBS 5.01 - Base Operations

ORP reported an unfavorable schedule variance in December 2018, due to the following:

- Contamination levels encountered in the PB-1 pump rebuild.
- Delay in procurement of some equipment required for installation in the TX Tank Farm in support of the SST stewardship program.

ORP reported an unfavorable cost variance in December 2018, due to the following:

- Additional resources needed for surveillance and maintenance activities at the ETF.

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- Additional resources needed for procurement switch in respirators. ORP noted issues with the Scott respirators. Carbon was coming through the filters and workers were coming out with carbon on their faces. ORP was concerned that workers were breathing carbon into their lungs and they tried working with the manufacturer to find a fix. The manufacturer was either unwilling or unable to find a solution to the problem so the decision was made to change manufacturers to MSA (not Mission Support Alliance). In doing so, ORP had to procure the materials, and modify the program for fit-testing and maintenance of that equipment. In December, workers started going through training on the new masks so they could be deployed in the field. Ecology enquired if ORP's intent is to rotate out the Scott equipment. ORP responded that Scott equipment will be eliminated as soon as everyone is trained.

WBS 5.03 - Waste Feed Delivery Treatment

ORP reported a favorable schedule variance for December 2018, due to work scope that was ahead of schedule for AP-02D Tank Farm Upgrades Project. An unfavorable cost variance for the month was associated with scope that required additional work on the AP-105 Tank Farm Upgrades Project, which deals with removal of a pump.

WBS 5.05 - Treat Waste

ORP reported a favorable schedule variance for December 2018, due to recovery in geotechnical laboratory testing engineering and summary reports. ORP reported a favorable cost variance in December 2018 with all variances being lower than the reporting threshold.

CONSENT DECREE MONTHLY REPORT

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

The reports, agreements, issues, and actions were discussed and updated as follows (there were no Consent Decree (CD) action items this month).

2.0 SINGLE-SHELL TANK RETRIEVAL PROGRAM

ORP reported there were no changes to the milestone dates listed on Page 6 of the CD report.

Significant Accomplishments During the Prior Month

Completed Accomplishments

ORP reported on the following completed accomplishments:

- Installation placement of POR518 and POR519, which is the exhaust system for A Tank Farms.
- Fabrication of the exhaust manifold system of retrieved exhausters. They have actually been placed into the tank farm on the pad waiting for work to start on connections.
- Removal of tank AX-103-09B thermocouple.
- Installation of the A Farm ventilation system demisters, which were attached to the portable exhausters.
- Excavation of hose-in-hose transfer lines at AX farm from the diversion box to the AX-102 pits 02C and 02D, which will be part of the transfer system and the waste management system.
- Installation of Tank AZ-102 02A.
- Completed the in-service leak tests for the AX-102, AX-104 diversion box to the AX drop leg.
- Placement of the AX-102 hydraulic power units and manifolds, which will be powering the pumps and the extended reach sluicer system.

Ongoing Activities

ORP reported the planned activities remain the same as the last reporting period. The major ongoing activity right now is in the A Farm ventilation system and the installation of the electrical infrastructure. Conduit installation was completed and currently efforts are underway to pull wiring and cabling for all the control units from the control trailers. Direct-push sampling of soils near power poles at tanks A-104 and A-105 is continuing.

Significant Planned Activities in the Next Month

ORP reported on the following planned activities:

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- Complete excavation of the hose-in-hose transfer lines in the AX farm diversion box to pits AX-102A and B.
- Complete installation of the transfer lines at AX-102 pits, A, B and C, plus shield plates and hose barns.
- Complete an engineering review for the removal of a stuck shield plug in the AX-102 02 B pit, moving ahead with most likely the final effort to remove this plug.
- Complete the north/south electrical backbone, conduit installation and backfill.
- Complete cathodic protection system upgrades.
- Complete removal of the A-104 thermocouple, which was the ventilation tie-in for that tank.

Issues

ORP reported they are still experiencing reduced efficiencies due to the mandatory use of supplied air. Challenges still remain with A Tanks, A-104 and A-105 concerning the ongoing discussions with Ecology. As-found condition of the equipment found in the A and AX farm tanks remain a concern and are impacting progress, the stuck shield plug as being the latest example. Thermocouple removal in A Farm may be the next challenge of as-found equipment problems, some of them appear damaged and bent from underneath the risers. The last issue is the ambient air letter, which was previously discussed.

3.0 TANK WASTE RETRIEVAL WORK PLAN STATUS

Significant Planned Activities in the Next Month

ORP reported on a plan modification to RPP-RPT-58933 on tank AX-102, to update the schedule and vapor monitoring sections.

4.0 RETRIEVE AND CLOSE SINGLE-SHELL TANKS

WBS 5.02 EVMS Data

ORP reported for the month of December 2018, scheduled performance was at 98% of planned work and cost performance was only at 82% for the month. ORP noted the December unfavorable schedule variance was due to a shortage of electricians. December unfavorable cost variance was due to the use of overtime in trying to recover some schedule due to a shortage of personnel and installation of the A Farm exhauster structural steel, which required some rework.

5.0 WASTE TREATMENT AND IMMOBILIZATION PLANT PROJECT

ORP stated there were no Waste Treatment and Immobilization Plant Project (WTP) action items this reporting period.

ORP reported as of December 2018, WTP was at 67% complete overall, engineering design was at 89%, procurements at 67% and construction at 44%. ORP noted as of December 2018, LBL facilities, Low-Activity Waste (LAW), BOF, Analytical Laboratory are 70% complete overall

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with engineering design at 93%, procurement at 86%, construction at 86%, startup and commissioning at 31% complete.

ORP reported on the DOE request for an evaluation by the U.S. Army Corps of Engineers to evaluate various scenarios, the risks associated with current approaches and DOE's ability to complete the HLW and pretreatment facilities. The analysis indicated a low probability that DOE can meet the milestones for construction and commissioning of these facilities established by the Amended Consent Decree under the current funding profile. The DOE Office of Project Management conducted an independent assessment of the U.S. Army Corp of Engineers report and substantiated many of the findings and concerns and risks that were identified. Funding is probably the single biggest driver considering the need to support an operational project like this. Operational costs are going to be significant in parallel with continued construction of very substantial facilities.

Project Schedule and Cost Variance Performance

For December 2018, ORP reported a positive schedule variance of \$1,735,000 and a negative \$2 million cost variance for a net favorable schedule variance. This is primarily due to some equipment arrivals for the Effluent Management Facility (EMF). While commissioning did have some offsets with their delays in procurements in support of startup activities, BOF also had some unfavorable delays associated with components system testing delays. ORP stated they anticipate that over time as WTP shifts to a more startup and commissioning focus for the entirety of the project, schedule variances will be challenged.

ORP reported that HLW facility engineering reported an unfavorable schedule variance due to delays in engineering resources. ORP reported their plans have been slower than anticipated to transition many of the engineers from the Direct Feed of Low-Activity Waste (DFLAW) effort to the HLW effort as continuing needs are occurring in support of startup and commissioning activities and to compensate for normal attrition levels. Ecology suggested to ORP that if they create other metrics, besides just the EVMS, it may help the community at large get a better understanding of what is happening with the project. The State of Oregon added that they appreciate being able to attend this meeting to receive the reports from all the different ORP projects and it is their hope these meetings continue. ORP stated that it believes this meeting will continue as is.

ORP reported on the negative \$2 million cost variance over the period, primarily due to facility services that were planned for in a previous period. As a result of the recent re-plan, that work was not always occurring and because of the EVMS rules of credit, a positive cost resulted. ORP noted what is being reported now is more accurate. ORP stated more negative cost variances will be reported as additional employees are working night shifts and overtime gradually creeps up through startup and commissioning. ORP reported unfavorable cost variance in BOF construction, primarily due to the challenges of the build out; e.g., setbacks with the waste transfer piping and quality issues with the vendor. Ecology asked if a re-plan was in the works. ORP stated that the re-plan had already happened, but the impacts on the schedule and other variances hadn't yet been realized.

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6.0 PRETREATMENT FACILITY

ORP reported no changes to the percentage completions this reporting period. ORP reported final decisions are being made for key T4 and T5 technical issues. These decisions were expected to come in December 2018, but they are still being worked on.

7.0 HIGH-LEVEL WASTE FACILITY

ORP reported the next step in the HLW facility is to continue gradual ramp-up of the engineering activities to support design progression.

8.0 LOW-ACTIVITY WASTE FACILITY

ORP reported that the LAW facility is in the middle of the transition from construction to startup and commissioning. From a construction, procurement and engineering perspective, the focus now is on any adjustments to the facility and to the design needed as a result of the changes and the documented safety analysis. ORP reported there are some procurements that are still in process and systems will not be able to finish out their construction element until those procurements are completed and the equipment has been installed. ORP also noted there will be revisions of engineering documentation, continuations of procurements, as needed and then installation of the equipment, which all needs to happen before the individual scoped systems can turn over to the startup and commissioning organization. ORP stated they are starting to work on some metrics to evaluate test durations, processes and procedures.

9.0 BALANCE OF FACILITIES

ORP reported construction of the EMF is going well. ORP noted there have been some delays in procurements of bulk materials, such as pipe valves. There have also been some challenges with the tight confines within the facility and sequencing separate work crews. ORP reported that the rebar is all in place over the top of the low-point drain facility. Not as many big structures are being constructed now, and it is more of a build out within the individual cells, with the focus being on small-bore pipe insulation. ORP reported that both the east/west and the north/south utility rack has been installed and that is facilitating the transition between the heating, ventilation, and air conditioning building where all of the BOF come in to support the EMF.

ORP reported the electrical distribution network was activated in place, is operational, and has been turned over to the operations group. ORP reported that the water treatment facility is also completely in the hands of the operations group; however, there are some cases where potable water is still in use and supplied offsite by Mission Support Alliance. The last part of the water systems is the cooling tower and it is fully operational and supporting the mission. Bechtel has gone to 24-hr shifts.

ORP reported two big areas of testing at this time are in the steam plant and the chiller compressor facility. The steam plant is early in its test cycle and they are working toward the first fire of boilers. ORP reported there has been coordination with Ecology to ensure that they will be able to watch some of the activities that will be ongoing, specifically operations of the

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boilers. ORP also noted there have been simultaneous discussions with the Department of Health on other systems.

ORP reported that testing has begun in the chiller compressor plant. ORP has been able to operate the air compressors, which require integrated operations of the compressors, the chiller units and cooling tower to provide a cooling load for the air-drying units. ORP noted they are now working on control and reporting of alarms from the LAW Annex, where the main control room will be to support and coordinate the operations of the air systems within the chiller compressor plant.

ORP reported the glass former facility is just starting into its testing phase. Some problems were encountered with contamination inside some of the piping that controls the air piping, controls the instruments. There was a very big effort over the last several months to clean out all of that piping and it was a significant setback, for the startup duration initially identified for the glass former facility. The glass former facility tie-in like the ammonia facility is much later in duration for the overall project, so these kinds of delays, while they are extremely frustrating, they tie up engineering resources, tie up field craft resources, delay the actual testing in the facility, and don't really have any impact on overall project startup. Ecology enquired if after ORP discovered the anomaly, they were able to go through and clean up the piping and perform post-inspections to make sure those lines were clean. ORP responded yes, this was part of the overall package and every single line item and every single work package has been closed out. ORP reported the air compressors that were specific to the glass former facility had to be sent off for refurbishment and those are still being worked.

ORP reported 34 of 35 systems in the Analytical Laboratory have been turned over to the startup organization significantly ahead of schedule. This will allow for some added flexibility when it comes to methods development, methods validation, and actually getting the lab up and running. ORP reported that as of now, the Analytical Laboratory is probably in the best shape and has the least risk of jeopardizing the overall project.

ORP/Ecology TPA and CD Agreements, Issues, and Action Items –March 7, 2019

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:

1. Appendix H step 2b, has not been completed. USDOE have submitted Single-Shell Tank (SST) WMA (Waste Management Area)-C Closure Plans without any indication of the role and participation for Nuclear Regulatory Commission (NRC), or a plan for completing this step.
2. Appendix I – USDOE has presented an inaccurate process for closure of the Tank Farms, and of WMA-C. Appendix I has defined the expectations of the Tri-Parties, and a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) decision has not been an assumption from any of the Tri-Parties.
 - a. Appendix I, Section 3.1 states: “Ecology¹ is the lead regulatory agency responsible for the closure of the SST system. EPA² is the support regulatory agency providing oversight of the state’s authorized program.”; “The Parties’ expect that this Agreement Appendix I will incorporate Agreement Section 5.5 processes to provide a mechanism for avoiding duplicative regulation between Ecology and the EPA through the lead agency concept.”; “EPA will evaluate the need to provide additional comments based on its review of proposed modifications to WMA closure action plans, and issue additional comments to Ecology as necessary.”
 - b. Appendix I, Section 3.2 states: “A consistent groundwater monitoring, protection, and risk assessment methodology will also be realized through close integration of activities, as described in the Hanford Site Groundwater Strategy (DOE/RL-2002-59). Consistent application of the requirements of this Appendix I will serve to aid the Parties in ensuring cost effective and consistent cleanup on the Central Plateau.”
 - c. Section 5.5 of the TPA (Action Plan): “The information necessary for performing RCRA³ closures/post-closures within an operable unit will be provided in various RFI⁴/CMS⁵ documents. The initial work plan will contain a Sampling and Analysis Plan (SAP) for the associated RCRA units and it will outline the manner in which RCRA closure/post-closure plan requirements will be met in the work

¹ Washington State Department of Ecology

² Environmental Protection Agency

³ Resource Conservation & Recovery Act

⁴ RCRA Facility Investigation

⁵ Corrective Measure Study

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plan and subsequent documents. The selected closure/post-closure method and associated design details will (unless otherwise agreed to by the parties) be submitted as part of the CMS report at a later date, as specified in the work plan.” “In any case, the parties agree that CERCLA remedial actions and, as appropriate, HSWA⁶ corrective measures will comply with ARARs⁷.”

- d. Section 5.6: “The EPA and Ecology have selected a lead regulatory agency approach to minimize duplication of effort and maximize productivity. Either the EPA or Ecology will be the lead regulatory agency for each operable unit, TSD⁸ group/unit or milestone. The lead regulatory agency for a specific operable unit, TSD group/unit or milestone will be responsible for overseeing the activities covered by this action plan that relate to the successful completion of that milestone or activities at that operable unit or TSD group/unit, ensuring that all applicable requirements are met.”
3. USDOE has stated in the recent WIR⁹ public meeting, that the Composite Analysis was being worked on now, and that it would be released (in draft) in 2020. USDOE had previously stated that the TC&WM¹⁰ EIS¹¹ would be sufficient for use as a composite analysis for the WMA- C PA¹². The State of Washington is in agreement that the TC&WM EIS is adequate for this purpose, and has been working with that assumption. Ecology does not have any knowledge of the development of the “Composite Analysis”, and as indicated in Appendix I section 3.2, the Tri-Parties have agreed that there will be “close integration of activities” and a “consistent application of the requirements of Appendix I”. Ecology is the lead agency for SST Closure and will expect USDOE to apply the TC&WM EIS as the “Composite Analysis” for closure of WMA-C, until USDOE closely integrates the development of a new risk assessment methodology.

USDOE agrees that the Composite Analysis for the TC & WM EIS is what was and is being used for the WMA-C PA.

⁶ 1984 Hazardous and Solid Waste Amendments

⁷ Applicable or Relevant and Appropriate Requirements

⁸ Treatment, Storage, and/or Disposal

⁹ Waste Incidental to Processing

¹⁰ Tank Closure and Waste Management

¹¹ Environmental Impact Statement

¹² Performance Assessment

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#	Action ID Start Date	Action	Updates / Needs for Closure	Actionee(s)	Status/ Date Closed
1	TF-16-11-04 11-17-16	ORP to provide Ecology the T-112 work plan	In legal review. (07/19/2018) No change (01/03/2019)	Dusty Stewart	On Hold
2	TF-18-07-01 07/19/18	Integrate the ground water modeling for WMA-C PA with BP-5 remedial design for pump and treat at WMA-C (Jeff Lyon)	Held several meetings with RL/ORP on this and other integration issues in July and August. RL has the lead for groundwater monitoring program. ORP proposes closing. (10/18/2018) Ecology wants clarification when BP-5 Interim Record of Decision (IROD) is expected to be issued and that there is action from RL to address technetium-99 contamination. Action item to remain open (10/18/2018) No change (01/03/2019)	Jan Bovier	Open
3	TF-18-10-01 10/18/18	Follow up meetings for discussion and resolution of tank-side cesium removal (TSCR) related activities.	Schedule a meeting to further discuss concerns related to crystalline silicotitanate (CST) compatibility with HLW glass, long term storage, ion exchange column design, potential for resolution concepts (in the early stage). ORP will schedule first meeting within the next couple of weeks. Additionally Ecology would like a invite to witness the tall column test. No change (01/03/2019)	Sahid Smith/Steve Pfaff	Open
4	TF-18-10-02 10/18/18	Ecology and DOE to meet to discuss Ecology email (see Updates)	The HFFACO is the current working agreement and Ecology is confident that the HFFACO has adequately described our expectations for WMA-C Closure. USDOE and Ecology will meet and discuss the areas where USDOE have not fulfilled the TPA requirements for SST Closure or are inconsistent with Tri-Party agreements and understanding. USDOE and Ecology will agree to a resolution to those deficiencies where USDOE have not fulfilled the TPA Requirements. If USDOE has concerns regarding the HFFACO, then our respective senior	Jan Bovier	Open

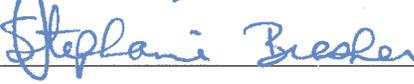
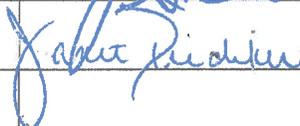
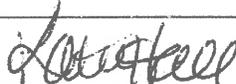
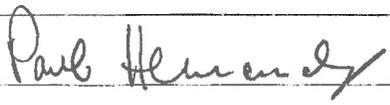
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#	Action ID Start Date	Action	Updates / Needs for Closure	Actionee(s)	Status/ Date Closed
			managers should provide direction to the TPA Project Managers for resolving those concerns. (Email Jeff Lyon, Oct 22, 2018) Meeting between ORP and Ecology occurred on 11 Dec 2018 to discuss these issues. ORP is preparing a response for Ecology.		
5	TF-19-01-01	Slurry line replacement schedule	Provide a slurry line replacement schedule. (01/03/2019)	Paul Hernandez	Open
6	TF-19-01-02	Dump valve usage for cold/hot test may not be compliant with RCRA permit.	Meeting with Ecology scheduled for February 14 th (01/24/19).	Paul Hernandez/Rana Evans	Open
7	TF-19-02-01	Provide briefing and invite Jeff Lyon, Steve Lowe, Dan McDonald and Jay Decker	Briefing on the tank integrity program and schedule. Clarify the tank testing activities that are in place to ensure integrity of tanks that will be significant to DFLAW operation. Briefing is planned for early March 2019.	Dusty Stewart	Open

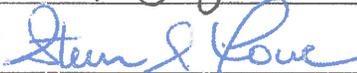
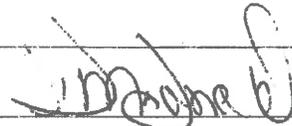
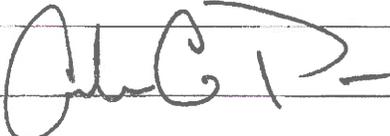
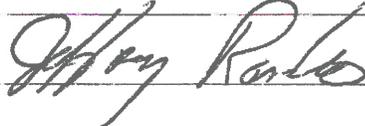
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#	Action ID Start Date	Action	Updates / Needs for Closure	Actionee(s)	Status/ Date Closed
1	WTP-19-			Wahed Abdul	
2					
3					

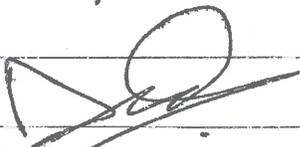
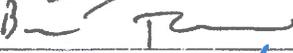
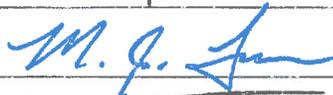
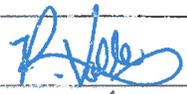
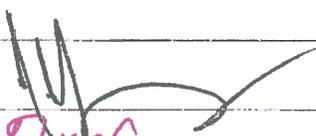
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PRINT NAME	SIGN NAME	ORG
Abdul, Wahed		ORP
Alzheimer, Jim		ECY
Barnes, Mike		ECY
Beehler, Steve		ORP
Bovier, Jan		ORP
Brasher, Stephanie		MSA
Brown, Dennis		ORP
Burnett, Kaylin		ORP
Cameron, Craig		EPA
Carlson, Annette		ECY
Cimon, Shelley		OR State
Decker, Jay		ECY
Diediker, Janet		ORP
Einan, Dave		EPA
Evans, Rana		ORP
Fletcher, Tom		ORP
Gao, Tracy		ECY
Grindstaff, Joni		ORP
Hall, Katie		ECY
Harkins, Brian		ORP
Hastings, Rob		ORP
Hernandez, Paul		ORP
Irwin, Mat		ORP

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PRINT NAME	SIGN NAME	ORG
Johnson, Jeremy		ORP
Jones, Mandy		ECY
Joyner, Jessica		WRPS
Keith, Colleen		ORP
Kemp, Christopher		ORP
Lobos, Rod		ORP
Lopez, Maria		WRPS
Lowe, Steven		ECY
Lucatero, Yoana		ECY
Lyon, Jeffery		ECY
Martell, John		DOH
Mathey, Jared		ECY
McDonald, Dan		ECY
Menard, Nina		ECY
Mulkey, Charles		WRPS
Parker, Dan		WRPS
Pfaff, Stephen H		ORP
Pomiak, Andrew		ECY
Price, John		ECY
Qualheim, Jane		MSA (note taker)
Rambo, Jeffrey		ORP
Rochette, Beth		ECY
Schleif, Stephanie		ECY

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PRINT NAME	SIGN NAME	ORG
Schmidt, John		DOH
Serafin, Shane		ORP
Skorska, Maria		ECY
Smith, Sahid		ORP
Stewart, Dustin		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
Yasek, Donna		BNI
Young, Jason		ORP
VALUEN ROBN		WRPS