Office of River Protection
Tri-Party Agreement Project Managers' Meeting Minutes

December 10, 2020

Meeting held virtually, via MS TEAMS

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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.

Brian A. Harkins Digitally signed by Brian A. Harkins Date: 2021.01.20 15:58:00 -08'00'

_____ Date: _____

Brian Harkins, Project Manager
DOE-ORP

Jason Young Digitally signed by Jason Young Date: 2021.01.20 17:11:03 -08'00'

_____ Date: _____

Jason Young, Project Manager
DOE-ORP

(Not in attendance) _____ Date: _____

Wahed Abdul, Project Manager
DOE-ORP

Digitally signed by Lyon, Jeffery (ECY) Date: 2021.01.25 13:48:32 -08'00'

_____ Date: _____

Jeff Lyon, Project Manager
Washington State Department of Ecology

Digitally signed by Decker, Jay (ECY) Date: 2021.02.03 11:08:48 -08'00'

_____ Date: _____

Jay Decker for,
Dan McDonald, Project Manager
Washington State Department of Ecology

Digitally signed by Temple, John (ECY) Date: 2021.01.22 09:50:03 -08'00'

_____ Date: _____

John Temple, Project Manager
Washington State Department of Ecology

OFFICE OF RIVER PROTECTION TRI-PARTY AGREEMENT/CONSENT DECREE MONTHLY PROJECT MANAGERS' MEETING

TERMS

BBI	Best-basis inventory
BOF	Balance of Facilities
CD	Consent Decree
CD-3B	critical decision
CERCLA	*Comprehensive Environmental Response, Compensation and Liability Act*
DFLAW	direct feed low-activity waste
DOE	U. S. Department of Energy
DSA	Documented Safety Analysis
DST	double-shell tank
Ecology	Washington State Department of Ecology
EIS	Environmental Impact Statement
EM-1	DOE Office of Environmental Management, Assistant Secretary
EMF	Effluent Management Facility
EPA	U.S. Environmental Protection Agency
ERSS	Extended Reach Sluicer System
ETF	Effluent Treatment Facility
EVMS	earned value management system
FY	fiscal year
IAMIT	Inter-agency Management Integration Team
IMUST	Inactive Miscellaneous Underground Storage Tanks
IQRPE	Independent Qualified Registered Professional Engineer
LAW	Low-activity waste
LBL	LAW Facility, Balance of Facilities and Lab
LERF	Liquid Effluent Retention Facility
MUST	Miscellaneous Underground Storage Tank
ORP	U. S. Department of Energy, Office of River Protection
PA	Performance Assessment
PMM	project manager meeting
POC	Point of contact
PT	Pretreatment
RAD	Radiation absorbed dose
RCRA	*Resource Conservation and Recovery Act*
SST	single-shell tank
TC&WM	Tank Closure and Waste Management
TPA	Tri-Party Agreement
TSCR	tank-side cesium removal
TWRWP	tank waste retrieval work plan
UT	Ultrasonic Test
WMA-C	Waste Management Area C
WRPS	Washington River Protection Solutions LLC
WTP	Waste Treatment and Immobilization Plant

OFFICE OF RIVER PROTECTION TRI-PARTY AGREEMENT/CONSENT DECREE MONTHLY PROJECT MANAGERS' MEETING

1.0 ADMINISTRATIVE ITEMS/MILESTONE STATUS/ACTIONS

Upcoming Meetings
The next U.S. Department of Energy-Office of River Protection (ORP) Tri-Party Agreement Project Managers' meeting is scheduled for January 14, 2021, via MS TEAMS.

Recent Items Entered Into the Hanford Administrative Record
The Office of River Protection Tri-Party Agreement and Consent Decree monthly reports for the period of October 1- October 31, 2020, were entered into the Hanford Administrative Record on November 23, 2020.

Tri-Party Agreement Milestone Status
ORP stated all Tri-Party Agreement (TPA) milestones reported on were either Complete, On Schedule or In Dispute Resolution (for details on specific milestones, see pages 3-5 of the October 2020 ORP TPA Monthly Report).

Tri-Party Agreement Issues and Action Items
For reference, see attached, "ORP/Ecology TPA and CD Agreements, Issues and Action Items – December 2020 Meeting."

Action No. 1 (TF-20-01-03): *This action was **closed** by the Parties on 11/12/20.*

Action No. 2 (TF-20-02-02): Ecology stated they received the AP-106 Repurposing Report, but had trouble opening the file. ORP responded that they would look into the problem with the file. *The action remains **open.***

Action No. 3 (TF-20-10-01): ORP reported it would contact Ecology for a date and time for a briefing from WRPS on this action. *The action remains **open**.*

Action No. 4 (TF-20-10-02): ORP reported it had sent Ecology images from the lecia scan by email on October 8, 2020. *The Parties agreed to **close** this action.*

Action No. 5 (TF-20-10-03): ORP reported it would have PNNL brief Ecology on this actions. Ecology agreed to provide possible dates and times for the briefing. *The action remains **open**.*

Action No. 6 (TF-20-11-01): Ecology acknowledged that this issue is most likely being discussed in the holistic negotiations, but was not will willing to close the action, but was willing to potentially change the language of the action. ORP and Ecology will work on new language for the action. *The action remains **open**.*

Action No. 7 (TF-20-11-02): No status update was provided. *The action remains **open**.*

Action No. 8 (TF-20-11-03): ORP provided an update/briefing, which Ecology agreed could satisfy the action and close it. However, Ecology asked to be provided with at status update later in the fiscal year. *The Parties agreed to **close** this action.*

Action No. 9 (TF-20-11-04): ORP reported that this action stemmed from an error in a previous monthly report. Ultrasonic testing is not performed on single shell tanks. The report was corrected with Ecology concurrence. *The Parties agreed to **close** this action.*

2.0 SYSTEM PLAN

Significant Past Accomplishments

- ORP reported that the selected scenarios for the *River Protection System Plan*, Rev. 9, were agreed upon by the U.S. Department of Energy (DOE), Office of River Protection (ORP) and the Washington State Department of Ecology (Ecology). ORP documented the agreement and transmitted letter 19-MIO-0020, "Request for Concurrence on Selected Scenarios for the River Protection Project System Plan, Revision 9," dated September 25, 2019, to Ecology for concurrence. Ecology concurred on October 2, 2019, via letter 19-NWP-158, "Transmittal of Signed Concurrence for *Selected Scenarios for the River Protection Project System Plan, Revision 9*, RPP-RPT-61707, Rev. 0."
- As of May 2020, cost and schedule development of the selected scenarios was completed, and the results were presented to Ecology representatives. Development of the *River Protection Project System Plan*, Rev. 9, document is ongoing.
- As of August 2020, the draft of the *River Protection Project System Plan*, Rev. 9, was completed and sent out for review and all comments were dispositioned.
- Washington River Protection Solutions, LLC has formally transmitted the *River Protection System Plan*, Rev. 9, to ORP and ORP accepted it.
- The U.S. Environmental Protection Agency (EPA), DOE, and Ecology met in the first mediated session of the "Holistic Negotiations" on June 25, 2020. Two negotiation sessions occurred in October.

Significant Planned Actions in the Next Six Months

- Discuss disputes with regard to milestone M-062-45 and its associated milestones during "Holistic Negotiations."
- ORP will transmit River Protection System Plan, Rev. 9, by the extended due date of November 13, 2020.

Issues/Other Items

- Ecology and ORP have ended negotiations related to the M-062-45 milestone and have initiated dispute. "holistic negotiations" are planned to resolve these disputes.

3.0 ACQUISITION OF NEW FACILITIES

Significant Past Accomplishments

- Submitted CD-1 for Facility to Store Spent Ion Exchange Columns Prior to DFLAW.

Significant Planned Actions in the Next Six Months

- None

Issues/Other Items

- None

4.0 TANK-SIDE CESIUM REMOVAL SYSTEM

Significant Past Accomplishments

- Concrete pour for the south side of Tank-Side Cesium Removal (TSCR) shield walls was completed. Installation of primary piping for the route between W-211 and ICD-30/31 is in progress. Twenty spools were placed in the trench and eleven piping welds were completed.
- The final TSCR Ion Exchange forklift testing was completed and the forklift will be shipped to the site the first week of November.

Significant Planned Actions in the Next Six Months

- Concrete pour for the south side of Tank-Side Cesium Removal (TSCR) shield walls was completed. Installation of primary piping for the route between W-211 and ICD-30/31 is in progress. Twenty spools were placed in the trench and eleven piping welds were completed.
- The final TSCR Ion Exchange forklift testing was completed and the forklift will be shipped to the site the first week of November.

Issues/Other Items

- None

5.0 242-A EVAPORATOR STATUS

Significant Past Accomplishments

ORP reported it had:

- Completed installation of the 242-A Evaporator proximity security entry system.
- Completed replacement of pre-filters on two of the three building exhaust plenums.
- Completed 100 percent design for the 242-A Evaporator transfer line replacement.
- Continued wall nozzle fabrication for the 242-A Evaporator slurry and feed transfer line replacement.
- Completed actuator fabrication and functional testing.
- Completed work on the resolution of the universal joint potential inadequacy in the safety analysis. Universal joint testing has been completed, and the vendor has incorporated the new universal joints into the calculations, engineering change notices, and drawings.

- Completed work on the resolution of the buried pipe potential inadequacy in the safety analysis. The calculations for Nuclear Safety to perform the safety basis amendment were completed.
- Completed development of the 100 percent engineering design for the 242-A Evaporator DSA upgrades.
- 242-A Evaporator DSA upgrades hardware and software procurement initiated.

Significant Planned Actions in the Next Six Months

- Complete replacement of the third, and final, set of pre-filters on the building exhaust plenums.
- Procure new PB-1 and PB-2 replacement pumps.
- Initiate pit work in support of 242-A Evaporator transfer line replacement.
- Initiate DSA safety system upgrades construction phase.
- Complete wall nozzle fabrication for the 242-A Evaporator slurry and feed transfer line replacement

Issues/Other Items

- Initial testing revealed an issue with the original universal joints on the actuators used to drive the tank farm double isolation valves. A potential inadequacy in the safety analysis was written. Testing of different universal joints has now been completed, and the vendor has incorporated the new universal joints into the calculations, engineering change notices, and drawings.
- Following universal joint determination, 92 universal joints/actuators will need to be replaced. Project team and facility operations personnel are initiating phased planning of replacement to support tank transfer operations.

6.0 LIQUID EFFLUENT RETENTION FACILITY AND 200 AREA EFFLUENT TREATMENT FACILITY

Significant Past Accomplishments

ORP reported it is focused on significant facility upgrades and repair activities to prepare for supporting DFLAW and the additional waste treatment capacity needed to support DFLAW. ORP also reported:

- Total FY21 processing volume: ~0 gallons

ETF:

- Completed chiller upgrade
- Completed caustic tank upgrade
- Completed tank repair verification
- Complete Peroxide Decomposer Vessel system upgrade
- Completed Load-In Station drain and filter system upgrade
- Complete Evaporator valve upgrade
- Complete Colling Tower system upgrade
- Complete Uninterruptible Power Supply upgrade
- Completed Liquid Waste Processing Facility Stairs and Ladder replacements

- Completed Rough Filter & Hoist refurbishment
- Completed design of ultraviolet/oxidation system upgrade
- Completed design for the monitoring and control system upgrade
- Completed design for the Basin 41 installation project
- Completed design of redundant filtration upgrade
- Completed design of Load-In Station building expansion
- Completed design of Vessel Off-Gas System upgrade

LERF Basin 41:

- Nothing reported

Significant Planned Actions in the Next Six Months

ETF:

- Complete design of the supplemental organic treatment system
- Complete design of the modular grout system
- Complete design of the brine storage tanks
- Complete design of the carbon dioxide membrane contactors
- Complete design of the Motor Control Center
- Receive material procurements for the ETF MCS and ultraviolet/oxidation system upgrades

Issues/Other Items

- ORP reported work has paused on the LERF Basin 44 cover replacement project while nuclear safety evaluations are performed by Washington River Protection Solutions, LLC and ORP. Evaluations are being performed due to visual indication of solid material in the basin and sample results from that material. ORP has provided approval to implement the approach that will pump down the remaining volume in LERF Basin 44 to perform a radiological analysis of the solids.

7.0 TANK SYSTEM UPDATE

7.1 Double-Shell Tank Integrity

Significant Past Accomplishments

ORP noted the following activities:

- Received and installed a retractable corrosion monitoring probe in Tank 241-AP-102 and 241-AZ-101.
- Completed ultrasonic testing inspections for the following tanks in FY 2020: 241-AW-102; 241-AW-101; and 241-AW-106.
- Completed enhanced annulus visual inspection in FY 2020: 241-AW-101; 241-AW-102; 241-AW-103; 241-AW-104; 241-AW-105; 241-AW-106; 241-SY-101; 241-SY-102; and 241-SY-103.
- Released RPP-RPT-62123, Ultrasonic Inspection and Air Slot Visual Inspection Results for Double-Shell Tank 241-AW-102 – FY 2020, in June 2020.

- Released RPP-RPT-62202, Ultrasonic Inspection and Air Slot Visual Inspection Results for Double-Shell Tank 241-AW-101 – FY 2020, in August 2020.
- Issued a contract to fabricate, test, and deliver a primary tank bottom volumetric inspection system to be deployed into the annulus of double-shell tanks (DST) and used to characterize regions of the primary tank bottom.
- Issued a competitive procurement contract to a vendor to design and fabricate a tertiary leak detection inspection tool for deployment beneath the secondary liner of a DST.
- Revised TFC-ENG-CHEM-D-19, Maintain Tank Monitoring Surveillance Baselines, to accommodate tank baseline changes in tank farms MCS.
- Initiated DST Annulus visual inspections for FY 2021, starting with AP-103 and AP-101.
- Initiated Ultrasonic testing at AW-105 DST.

Significant Planned Actions in the Next Six Months

- Complete the FY 2021 ultrasonic testing inspections at tanks 241-AW-105, 241-AW-104, and 241-AP-103
- Complete DST Annulus visual inspections at nine tanks
- Complete fabrication/receipt of Southwest Research Institute Guided Wave system

Ultrasonic Testing Report Status

- 241-AW-102 ultrasonic testing report released in June 2020.
- 241-AW-101 ultrasonic testing report released in August 2020.
- 241-AW-106 ultrasonic testing draft report in progress with anticipated completion in November 2020.

Issues/Other Items

- None

7.2 Single-Shell Tank Integrity

Significant Past Accomplishments

- Performed TFC-ENG-CHEM-P-57, Intrusion Notification and Tank Leak Assessment Process, on: 241-SX-104 and 241-T-109
- Completed visual inspections of: 241-TX-101; 241-TX-102; 241-TX-104; 241-TX-107; 241-S-103; 242-S-110; 241-BX-112; 241-BY-107; 241-SX-112; 241-TY-104; 241-TX-110; 241-BX-109; 241-B-107; 241-BX-108; and 241-BX-105
- Visual inspections for extent of condition, as a result of Tank 241-SX-112 findings in February 2020: 241-SX-112; 241-SX-109; 241-SX-108; 241-SX-111; 241-SX-110; and 241-SX-106
- Visual inspections for CHEM-P-57 tank leak assessment of 241-B-109
- Completed work package planning for visual inspection of five miscellaneous underground storage tanks.
- Completed the in-tank laser scan for dome spalling extent of condition, as a result of Tank 241-SX-112 findings in February 2020: 241-SX-112, 241-SX-111, and 241-SX-109.

Significant Planned Actions in the Next Six Months

- Perform TFC-ENG-CHEM-P-57 on tanks 241-TX-113 and 241-B-109 (in progress).
- Perform FY 2021 visual inspections.

Issues/Other Items

- Tank 241-SX-112 was inspected visually in late February. The concrete dome was inspected fully, and there were three spots of spalled concrete in the dome. While there have been past inspections of the tank, they did not include the full dome; and this was the first inspection to reflect the spalling. There was no evidence of structural issues; however, the dome loading is being limited to current levels until further analysis is complete. The full analysis may take several months to complete, but a structural analysis contract is in place with the Pacific Northwest National Laboratory. Tank 241-SX-112 was inspected visually again in late July. The inspection did not identify any changes in the condition of the spalled locations. Concrete was noted on the waste surface under the spalled locations, suggesting that the spalling took place after 1969 when the tank was pumped and taken out of service. Further analysis is ongoing.
- Tank 241-SX-109 was inspected visually in late July. Spalled concrete was identified in the northeast portion of the tank dome next to a rectangular construction manhole. Additional small/shallow spalling locations, similar to those in Tank 241-SX-112, were noted on the tank dome. Concrete has been noted on the waste surface, and, comparing to past visual inspections, suggests that the spalling occurred post-1996.
- Tank 241-SX-108 was inspected visually in early August. Minor spalled concrete was identified on the tank dome.
- Tank 241-SX-111 was inspected visually in mid-August. Spalled/Cracked concrete was identified in various locations on the tank dome. Concrete has been noted on the waste surface, and, when comparing to past visual inspections, suggests that the spalling occurred post-1987. On September 1, 2020, a laser scan of SX-111 was performed. Review of the laser scan results identified a new spalling location since the visual inspection.

8.0 IN-TANK CHARACTERIZATION AND SUMMARY

8.1 Reports Completed or Released

ORP completed nine reports and released one. For details, please refer to page 27 of the October 2020 TPA monthly report.

8.2 Tank Sampling

Significant Past Accomplishments

- For October 2020, the following tank sampling was conducted:
- Performed Tank 241-AX-102 post-retrieval solids grab sampling on October 1, 2020 and October 28, 2020. Six grab samples were received at the laboratory.
- Performed Tank 241-AN-106 core sampling between October 22, 2020 and October 28, 2020. Four core samples were received at the laboratory.

Significant Planned Actions in the Next Six Months

- Tank 241-AN-106 core sampling is planned for November 2020.
- Tank 241-AN-106 liquid grab sampling is planned for December 2020.
- Tank 241-AP-107 qualification liquid grab sampling is planned for December 2020.
- Tank 241-AP-107 large-volume liquid grab sampling is planned for January 2021.
- Catch Tank C-301 grab sampling is planned for January 2021.

Issues/Other Items

- None

8.3 Best-Basis Inventory Updates

Significant Past Accomplishments

Best-basis inventory updates for the following tanks were completed in October 2020:

- 241-A-103
- 241-TX-114

Significant Planned Actions in the Next Six Months

Best-basis inventory updates for the following tanks are currently planned to be completed in November 2020:

- 241-AZ-101
- 241-B-201
- 241-BX-109
- 241-BX-111
- 241-SY-101

Issues/Other Items

- None reported

9.0 SINGLE-SHELL TANK CLOSURE PROGRAM

Significant Past Accomplishments

ORP reported the following completed activities:

- Submitted RPP-RPT-62684, FY2019 Annual Interim Surface Barrier Monitoring Report, Rev. 0, to Ecology via letter 20-TF-0095, "The U.S. Department of Energy, Office of River Protection, Transmittal of RPP-RPT-62684, Fiscal Year 2019 Annual Interim Surface Barrier Monitoring Report, Rev. 0, to Meet Hanford Federal Facility Agreement and Consent Order Milestone M-045-92AD" on October 7, 2020. This completed the M-045-92AD Milestone.
- Submitted revisions and comment responses to Ecology for RPP-RPT-59389, Tier 2 Resource Conservation and Recovery Act (RCRA) Closure Action Plan for Waste Management Area C; RPP-RPT-59390, Tier 3 Resource Conservation and Recovery Act (RCRA) Component Closure Activity Plan for 241-C-200 Series Tanks; and RPP-RPT-58858, Tier 1 Closure Plan Single-Shell Tank System.

- Continued permitting workshops with Ecology for the SST closure plans in the Hanford Sitewide permit. The workshops are currently being conducted as teleconferences.
- Submitted RPP-ENV-61497, Preliminary Performance Assessment of Waste Management Area A-AX, and RPP-ENV-62206, Analysis of Post-Closure Groundwater Impacts From Hazardous Chemicals in Residual Wastes in Tanks and Ancillary Equipment at Waste Management Area A-AX, on September 29, 2020, to meet the M-045-99 Milestone.
- Held two data quality objective meetings for WMA A/AX boundary with Ecology and EPA, September 1 and September 16, 2020.
- Held a data quality objective sampling meeting for WMA A/AX with Ecology on September 29, 2020.
- Held a sample depth meeting for D0006 in WMA A/AX with Ecology on October 14, 2020.
- Completed liner installation on the TX Evapotranspiration Basin on August 31, 2020.
- Report RPP-RPT-61684, Rev. 00B, was delivered to Ecology on October 10, 2019, to complete the M-045-92AC Milestone. Submitted RPP-RPT-61684, Maintenance and Performance Monitoring Plan for the Interim Barriers Program, Rev. 1, to Ecology via letter 20-TF-0069, "The U.S. Department of Energy, Office of River Protection, Transmittal of RPP-RPT-61684, Maintenance and Performance Monitoring Plan for the Interim Barriers Program, Rev. 1," on July 23, 2020. Ecology extended its review of the document until September 18, 2020 (20-NWP-137, "Extension of the Department of Ecology's (Ecology) Comment Review Period for the Maintenance and Performance Monitoring Plan, RPP-RPT-61684, Revision 1, for the Interim Barriers Program"). ORP received Ecology comments on the document on September 18, 2020 (20-NWP-159, "Department of Ecology's [Ecology] Comments on the United States Department of Energy – Office of River Protection's [USDOE-ORP] Maintenance and Performance Monitoring Plan for the Interim Barriers Program[RPP-RPT-61684, Rev. 1]). On October 8, 2020, ORP requested an additional 60 days past October 18, 2020 to provide responses to Ecology's comments on the primary document (20-TF-0101, "Response to 20-NWP-159 from the Washington State Department of Ecology). On October 9, 2020, Ecology approved ORP's request for a 60-day extension (20-NWP-164, "Approval of the United States Department of Energy's 60-day Extension Request for Comment Response.

<u>Significant Planned Activities in the Next Six Months</u>

ORP reported the following planned activities:

- Resolve Ecology's comments on RPP-RPT-59389, RPP-RPT-59390, and RPP-RPT-58858
- Respond to Ecology's comments on RPP-RPT-61684
- Release updated TPA Appendix I Performance Assessment documents incorporating Ecology comments as appropriate for WMA-C
- Complete the storm water drainage system for the TX evapotranspiration basin
- Hold additional WMAs A/AX boundary meetings for the purpose of reaching agreement. Next Scheduled meeting is November 3, 2020
- Award construction subcontract for TX Farm Barrier

Issues/Other Items

- See pages 33-35 of the October 2020 ORP TPA Monthly Report

10.0 SINGLE-SHELL TANK RETRIEVAL PROGRAM

Significant Past Accomplishments

Refer to the Consent Decree portion of these meeting minutes (page 15 section 2.0).

Significant Planned Activities in the Next Six Months

Refer to the Consent Decree portion of these meeting minutes (page 15, section 2.0).

Issues

Refer to the Consent Decree portion of these meeting minutes (page 15, section 2.0).

11.0 TANK OPERATIONS CONTRACT OVERVIEW

The earned value data can be viewed in the October 2020 ORP TPA Monthly Report on pages 38-39.

12.0 DIRECT FEED LAW UPDATE

ORP provided an update on Direct Feed Low Activity Waste (DFLAW). On the DFLAW schedule, ORP reported that on the critical path Integrated Disposal Facility, which the critical path for the overall schedule is actually the integrated disposal facility, with a focus on hiring and training, which was tied to the start of hot commissioning of the facility. However, that activity out about 180 days, which ended up becoming five days overlap in the overall schedule, and pushed the overall hot commissioning schedule by five days. ORP however, noted that as of today's meeting, that gap had been rectified. ORP also noted it was seeing fewer impacts from the COVID-19 pandemic. On the LERF and ETF Documented Safety Analysis (DSA), contractor WRPS had made up considerable schedule from previous months.

OFFICE OF RIVER PROTECTION TRI-PARTY AGREEMENT/CONSENT DECREE MONTHLY PROJECT MANAGERS' MEETING

1.0 CONSENT DECREE MILESTONES/ADMINISTRATIVE ACTIONS

Consent Decree Milestones
ORP reported milestones as On Schedule, At Risk, or Under Analysis (see pages 3-4 of the ORP October 2020 Consent Decree Monthly Report).

Consent Decree Issues and Action Items
For reference, see attached "ORP/Ecology TPA and CD Agreements, Issues and Action Items – December 2020 Meeting."

Action Items
No actions at this time.

2.0 SINGLE-SHELL TANK RETRIEVAL PROGRAM

Significant Accomplishments during the Prior Month
- Completed Tank AX-102 camera / Computer Aided Design modeling system videos.
- Completed Tank AX-104 mechanical and electrical system installation.
- Completed Tank A-101 riser 12 thermocouple removal.
- Completed Tank AX-102 post retrieval residual waste sampling.

On-Going Activities
- Completed Tank AX-102 camera / Computer Aided Design modeling system videos.
- Completed Tank AX-104 mechanical and electrical system installation.
- Completed Tank A-101 riser 12 thermocouple removal.
- Completed Tank AX-102 post retrieval residual waste sampling.

Significant Planned Activities in the Next Month
- Complete Tank AX-104 construction acceptance testing.
- Complete Tank AX-103 on-dome electrical system installation.
- Complete Tank AP-102 jumper removal and removal of remaining two sections (inside of AP Tank Farm) of the AY to AP hose-in-hose transfer line in support of future A Tank Farm hose-in-hose transfer line installation.

Issues/Other Items
- ORP referred to pages 9-10 of the October 2020 Consent Decree Monthly Report for the complete listing of issues.

3.0 TANK WASTE RETRIEVAL WORK PLAN STATUS

Significant Accomplishments during the Prior Month
ORP reported no activity.

Significant Planned Activities in the Next Month

ORP reported no new activity.

4.0 RETRIEVE AND CLOSE SINGLE-SHELL TANKS

Significant Accomplishments during the Prior Month

ORP reported no activity.

Significant Planned Activities in the Next Month

ORP reported no new activity.

5.0 WASTE TREATMENT AND IMMOBILIZATION PLANT PROJECT

As a general overview of the project, ORP reported that after a decrease in COVID-19 positive cases, the project is seeing a slight resurgence. As a result, many engineering and management personnel, some of which were beginning to report at their physical work locations in the field, are now back working from home, uh, situation. Personnel also continue to deal with reconfiguration of facilities to address COVID-19 protocols; social distancing and reaction to positive cases (i.e. staff quarantines and facility cleanings).

Issues/Other Items

- The LAW Facility control room was evacuated due to a positive COVID-19 test result. This resulted in a delay for planned testing of LAW Facility cranes, which are operated from the control room.
- The State of Oregon asked about the implantation of a "governance model" by contractors. ORP responded that the concept was being implemented, resulting in clearer and more frequent communication between the contractors and ORP. ORP said results are being seen, particularly in risk communication and forecasting.

6.0 PRETREATMENT FACILITY

Project Schedule and Cost Variance Performance

The earned value data can be viewed in the October 2020 ORP Consent Decree Monthly Report on page 22.

Significant Accomplishments during the Prior Month

- None

Significant Planned Activities in the Next Month

- Continue to manage suspended plant equipment purchase orders to reduce storage and suspension costs and evaluate ways to reduce procurement liability
- Continue to implement asset maintenance at the PT Facility to protect equipment and structures and to ensure design documents are maintained.

Issues/Other Items

- None reported

7.0 HIGH-LEVEL WASTE FACILITY

Project Schedule and Cost Variance Performance
The earned value data can be viewed in the October 2020 ORP Consent Decree Monthly Report on page 25.

Significant Accomplishments during the Prior Month
- Issued the 60 percent design review report for the melter offgas treatment system.

Significant Planned Activities in the Next Month
- Continue to advance system designs and hazard analysis for key mechanical and process systems
- Continue activities to develop path forward for the updated (increased) ashfall criteria
- Continue to manage suspended plant equipment purchase orders to reduce storage and suspension costs and to evaluate ways to reduce procurement liability
- Continue to implement asset maintenance at the HLW Facility to protect equipment and structures and to ensure design documents are maintained.

Issues/Other Items
- None

8.0 LOW-ACTIVITY WASTE FACILITY

Project Schedule and Cost Variance Performance
The earned value data can be viewed in the October 2020 ORP Consent Decree Monthly Report on page 28.

Significant Accomplishments during the Prior Month
- Construction completed turnover of the LAW Facility process control system to the Startup organization for testing
- Construction completed turnover of the LAW Facility environmental monitoring system to the Startup organization for testing
- Construction completed turnover of the LAW Facility passive gas analysis system to the Startup organization for testing
- Construction completed turnover of the LAW Facility active gas analysis system to the Startup organization for testing
- Construction completed turnover of the LAW Facility stack discharge monitoring system to the Startup organization for testing
- Construction completed turnover of the LAW Facility lighting electrical system to the Startup organization for testing
- 40% of LAW facility systems have been turned over to Operations

Significant Planned Activities in the Next Month

- WTP simulator is expected to receive authorization to operate from the DOE cybersecurity organization
- Startup organization will continue punch list resolution and system testing for the LAW Facility

Issues/Other Items

- Ecology asked if the LAW commissioning schedule had been updated. ORP said it had not.

9.0 BALANCE OF FACILITIES

Project Schedule and Cost Variance Performance

The earned value data can be viewed in the October 2020 ORP Consent Decree Monthly Report on page 30.

Significant Accomplishments during the Prior Month

- Maintenance organization completed pressure safety valve replacement and modification activities for the plant service air compressors.
- Maintenance organization completed replacement of the pressurization bladder in the chilled water system expansion tank.
- Maintenance organization completed repairs to the diesel fuel oil system booster pumps located in the Steam Plant.
- Plant Management completed modifications to the Steam Plant boiler nozzles to improve operational performance over a wider range of steam demand.

Significant Planned Activities in the Next Month

- Engineering will continue to support EMF construction, EMF system walkdowns, and EMF system startup testing.
- Plant Management will continue operations, testing, and tuning of the Steam Plant.
- Construction will continue onsite road preparation and paving.

Issues/Other Items

- None

10.0 ANALYTICAL LABORATORY

Project Schedule and Cost Variance Performance

The earned value data can be viewed in the October 2020 ORP Consent Decree Monthly Report on page 32.

Significant Accomplishments during the Prior Month

- Completed a joint DOE/BNI walkdown of the LAB in preparation for the BNI management LAB readiness assessment.
- Plant Management initiated recertification activities for the LAB fume hoods.

- Plant Management completed retest activities for the LAB radioactive liquid waste disposal system transfer pumps.

Significant Planned Activities in the Next Month

- Plant Management is expected to complete certification of the LAB fume hoods.
- Plant Management is expected to approve all remaining LAB method reports and complete the methods validation process for sealed sources
- Plant Management is expected to complete program implementation activities to support LAB readiness for operation.
- Plant management is expected to conduct the formal contractor assessment for the LAB ready to operate contract milestone.

Issues/Other Items

- ORP provided an update that following maintenance, all 54 fume hoods are operational.

ORP/Ecology TPA and CD Agreements, Issues, and Action Items –December 2020 Meeting

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 second Thursday of the month starting in December 2019. The TPA and CD monthly reports distribution will occur by the end of each month via link to the Admin Record. Ecology requested at the December 2019 meeting that this form be included with the email that includes the links to the monthly reports. This will be the format for report distribution and monthly meetings going forward for calendar year 2020.

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: "Ecology[1] is the lead regulatory agency responsible for the closure of the SST system. EPA[2] 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 RCRA[3] closures/post-closures within an operable unit will be provided in various RFI[4]/CMS[5] documents. The initial work plan will contain a Sampling and Analysis Plan (SAP) for the

[1] Washington State Department of Ecology
[2] Environmental Protection Agency
[3] Resource Conservation & Recovery Act
[4] RCRA Facility Investigation
[5] Corrective Measure Study

associated RCRA units and it will outline the manner in which RCRA closure/post-closure plan requirements will be met in the work 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, HSWA[6] corrective measures will comply with ARARs[7]."

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, TSD[8] 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."

[6] 1984 Hazardous and Solid Waste Amendments
[7] Applicable or Relevant and Appropriate Requirements
[8] Treatment, Storage, and/or Disposal

ORP/Ecology TPA and CD Agreements, Issues, and Action Items –December 2020 Meeting

#	Action ID Start Date	Action	Updates / Needs for Closure	Actionee(s)	Status/ Date Closed
1	TF-20-01-03 9 Jan 2020	Ecology to be included in discussions on how ORP is dealing with the issue of ETF not being able to handle the amount of Iodine that would be produced from DFLAW operations, and ORP's options therein. Ecology understands it is early in the process however. Their POCs for this issue are Dan McDonald and Katie Hall	On January 21, 2020, there was a briefing to Ecology/Oregon on the path forward for Iodine 129 by the Fix It Now Team. ORP recommends closing this action.(31 Jan 2020) On October 27, 2020 a FIN Team close out briefing was provided to Dan McDonald, Jay Decker, Jeff Lyon, Mandy Jones, Oliver Wang, Annette Carlson, and Jeff Marusich. On October 28, the two primary deliverables from the FIN Team were provided to Dan McDonald/Jay Decker.	Erik Olds	Closed 11/12/2020
2	TF-20-02-02 13 Feb 2020	ORP to send Ecology the AP-106 Repurposing Report to ECY		Brian Harkins	Open
3	TF-20-10-01 08-Oct 2020	ORP to provide Ecology (Jeff Lyon) the contract associated with Request for Proposal for the Primary Tank Volumetric Inspection/Tertiary Leak Detection Tool		Brian Harkins	Open
4	TF-20-10-02 08-Oct 2020	ORP to provide the Tank SX-112 Leica laser scan report to Ecology (Jeff Lyon)	ORP sent Ecology images from the laser scan by email on 8 Oct 2020	Brian Harkins	Closed 11/12/2020
5	TF-20-10-03 08-Oct 2020	ORP To provide Ecology with the report associated with R&D work performed by PNNL related to tank bottom volumetric inspection system.		Brain Harkins	Open

ORP/Ecology TPA and CD Agreements, Issues, and Action Items –December 2020 Meeting

#	Action ID Start Date	Action	Updates / Needs for Closure	Actionee(s)	Status/ Date Closed
6	TF-20-11-01 12-Nov 2020	ORP and Ecology to schedule a meeting to discuss the issues at the beginning of this document			OPEN
7	TF-20-11-02 12-Nov-2020	Ecology to status change notice associated with RPP-12711		Jeff Lyon	OPEN
8	TF-20-11-03 12-Nov-2020	DOE to send Ecology if there is any information related to equivalent material (permit condition 2R) on the fire suppression system at the 242-A Evaporator. Also for dump values and controls.		Paul Hernandez	OPEN
9	TF-20-11-04 12-Nov-2020	DOE to verify if Ultrasonic testing is done on Single Shell Tanks and if the report is accurate.		Dusty Stewart	OPEN

ORP/Ecology TPA and CD Agreements, Issues, and Action Items –December 2020 Meeting

#	Action ID Start Date	Action	Updates / Needs for Closure	Actionee(s)	Status/ Date Closed
1				Wahed Abdul	

THE HANFORD SITE

Office of River Protection Tri-Party Agreement

Monthly Reporting Period

October 1 – 31, 2020

Significant Past Accomplishments

- The selected scenarios for the *River Protection System Plan*, Rev. 9, were agreed upon by the U.S. Department of Energy (DOE), Office of River Protection (ORP) and the Washington State Department of Ecology (Ecology). ORP documented the agreement and transmitted letter 19-MIO-0020, "Request for Concurrence on Selected Scenarios for the River Protection Project System Plan, Revision 9," dated September 25, 2019, to Ecology for concurrence. Ecology concurred on October 2, 2019, via letter 19-NWP-158, "Transmittal of Signed Concurrence for *Selected Scenarios for the River Protection Project System Plan, Revision 9*, RPP-RPT-61707, Rev. 0."
- As of May 2020, cost and schedule development of the selected scenarios was completed, and the results were presented to Ecology representatives. Development of the *River Protection Project System Plan*, Rev. 9, document is ongoing.
- As of August 2020, the draft of the *River Protection Project System Plan*, Rev. 9, was completed and sent out for review and all comments were dispositioned.
- Washington River Protection Solutions, LLC has formally transmitted the *River Protection System Plan*, Rev. 9, to ORP and ORP accepted it.
- The U.S. Environmental Protection Agency (EPA), DOE, and Ecology met in the first mediated session of the "Holistic Negotiations" on June 25, 2020. Two negotiation sessions occurred in October.

Significant Planned Actions in the Next Six Months

- Discuss disputes with regard to milestone M-062-45 and its associated milestones during "Holistic Negotiations."
- ORP will transmit *River Protection System Plan*, Rev. 9, by the extended due date of November 13, 2020.

Issues

- Ecology and ORP have ended negotiations related to the M-062-45 milestone and have initiated dispute. "holistic negotiations" are planned to resolve these disputes.

Comments applicable to each issues section in this presentation:

- DOE authorized the Hanford Site to transition to Phase 2 beginning August 31, 2020.
- On March 24, 2020, the Hanford Site moved to an essential mission-critical operations posture in recognition of increasing COVID-19 concerns. While the majority of the Hanford Site workforce continues to telework, there are a limited number of workers reporting to the site to perform activities necessary to maintain the site in a safe condition, continuing to protect the community, region, and the environment. Additional work on planning for remobilization, engineering analysis, permitting documentation development, etc. by both the DOE and site contractors progresses as conditions allow.
- On May 20, 2020, DOE authorized the Hanford Site to move to Phase 1. Hanford Site operations began Phase 1 on May 26, 2020. During Phase 1, essential mission-critical operations were continued and targeted mobilization and low-risk workscope, such as implementation of COVID-19 protocols to infrastructure and facilities, required training, medical evaluations, and limited construction activities were added.
- DOE and its contractors are engaged in ongoing analysis of work schedule impacts. DOE is continuing to evaluate the information and COVID-19 potential impacts on the TPA and, if other actions may be necessary.

Acquisition of New Facilities

Significant Past Accomplishments

- Submitted CD-1 for Facility to Store Spent Ion Exchange Columns Prior to DFLAW.

Supplemental Treatment and RCRA Part B Permit Applications

Significant Planned Actions in the Next Six Months

- See the “System Plan” section, above, for updates related to the M-062-45 Milestone negotiations.

Issues

- Ecology and ORP have ended negotiations related to the M-062-45 Milestone and have initiated dispute. “Holistic Negotiation” mediated sessions began in June, 2020 to resolve these disputes.

Tank-Side Cesium Removal System

Significant Past Accomplishments

- Concrete pour for the south side of Tank-Side Cesium Removal (TSCR) shield walls was completed. Installation of primary piping for the route between W-211 and ICD-30/31 is in progress. Twenty spools were placed in the trench and eleven piping welds were completed.
- The final TSCR Ion Exchange forklift testing was completed and the forklift will be shipped to the site the first week of November.

Significant Planned Actions in the Next Six Months

- ORP will review the Documented Safety Analysis (DSA) addendum, Technical Safety Requirements, and TSCR Readiness Plan of Action for approval.
- TSCR construction activities will be completed and readiness activities will commence.
- ORP will approve the TSCR DSA .

Significant Past Accomplishments

- Completed installation of the 242-A Evaporator proximity security entry system.
- Completed replacement of pre-filters on two of the three building exhaust plenums.
- Completed 100 percent design for the 242-A Evaporator transfer line replacement.
- Continued wall nozzle fabrication for the 242-A Evaporator slurry and feed transfer line replacement.
- Completed actuator fabrication and functional testing.
- Completed work on the resolution of the universal joint potential inadequacy in the safety analysis. Universal joint testing has been completed, and the vendor has incorporated the new universal joints into the calculations, engineering change notices, and drawings.
- Completed work on the resolution of the buried pipe potential inadequacy in the safety analysis. The calculations for Nuclear Safety to perform the safety basis amendment were completed.
- Completed development of the 100 percent engineering design for the 242-A Evaporator DSA upgrades.
- 242-A Evaporator DSA upgrades hardware and software procurement initiated.

Significant Planned Actions in the Next Six Months

- Complete replacement of the third, and final, set of pre-filters on the building exhaust plenums.
- Procure new PB-1 and PB-2 replacement pumps.
- Initiate pit work in support of 242-A Evaporator transfer line replacement.
- Initiate DSA safety system upgrades construction phase.
- Complete wall nozzle fabrication for the 242-A Evaporator slurry and feed transfer line replacement.

242-A evaporator

Issues

- Initial testing revealed an issue with the original universal joints on the actuators used to drive the tank farm double isolation valves. A potential inadequacy in the safety analysis was written. Testing of different universal joints has now been completed, and the vendor has incorporated the new universal joints into the calculations, engineering change notices, and drawings.
- Following universal joint determination, 92 universal joints/actuators will need to be replaced. Project team and facility operations personnel are initiating phased planning of replacement to support tank transfer operations.

Significant Past Accomplishments

- Total FY21 processing volume: ~0 gallons
- ETF:
  - Completed chiller upgrade
  - Completed caustic tank upgrade
  - Completed tank repair verification
  - Complete Peroxide Decomposer Vessel system upgrade
  - Completed Load-In Station drain and filter system upgrade
  - Complete Evaporator valve upgrade
  - Complete Colling Tower system upgrade
  - Complete Uninterruptible Power Supply upgrade
  - Completed Liquid Waste Processing Facility Stairs and Ladder replacements
  - Completed Rough Filter & Hoist refurbishment
  - Completed design of ultraviolet/oxidation system upgrade
  - Completed design for the monitoring and control system upgrade
  - Completed design for the Basin 41 installation project
  - Completed design of redundant filtration upgrade
  - Completed design of Load-In Station building expansion
  - Completed design of Vessel Off-Gas System upgrade

Liquid Effluent Retention and 200 Area Effluent Treatment Facilities

Significant Planned Actions

- ETF:
  - Complete design of the supplemental organic treatment system
  - Complete design of the modular grout system
  - Complete design of the brine storage tanks
  - Complete design of the carbon dioxide membrane contactors
  - Complete design of the Motor Control Center
  - Receive material procurements for the ETF MCS and ultraviolet/oxidation system upgrades

Liquid Effluent Retention and 200 Area Effluent Treatment Facilities

Issues

- Work has paused on the LERF Basin 44 cover replacement project while nuclear safety evaluations are performed by Washington River Protection Solutions, LLC and ORP. Evaluations are being performed due to visual indication of solid material in the basin and sample results from that material. ORP has provided approval to implement the approach that will pump down the remaining volume in LERF Basin 44 to perform a radiological analysis of the solids.

LERF Volumes

Description	242AL-42 (Basin 42)	242AL-43 (Basin 43)	242AL-44 (Basin 44)
AZ-301 Condensate	-	+ 4,500	-
Mixed Waste Trench 31 and 34	+ 6,900	-	-
Other[1]	+ 2,400	-	-
Processing Campaign(s)	-	-	-
Total Volume	2,954,000	6,479,000	733,000

Data Date: November 2, 2020
Values shown in gallons

[1] 325 retention process sewer.

Significant Past Accomplishments

- Received and installed a retractable corrosion monitoring probe in Tank 241-AP-102 and 241-AZ-101.
- Completed ultrasonic testing inspections for the following tanks in FY 2020: 241-AW-102; 241-AW-101; and 241-AW-106.
- Completed enhanced annulus visual inspection in FY 2020: 241-AW-101; 241-AW-102; 241-AW-103; 241-AW-104; 241-AW-105; 241-AW-106; 241-SY-101; 241-SY-102; and 241-SY-103.
- Released RPP-RPT-62123, *Ultrasonic Inspection and Air Slot Visual Inspection Results for Double-Shell Tank 241-AW-102 – FY 2020*, in June 2020.
- Released RPP-RPT-62202, *Ultrasonic Inspection and Air Slot Visual Inspection Results for Double-Shell Tank 241-AW-101 – FY 2020*, in August 2020.
- Issued a contract to fabricate, test, and deliver a primary tank bottom volumetric inspection system to be deployed into the annulus of double-shell tanks (DST) and used to characterize regions of the primary tank bottom.
- Issued a competitive procurement contract to a vendor to design and fabricate a tertiary leak detection inspection tool for deployment beneath the secondary liner of a DST.
- Revised TFC-ENG-CHEM-D-19, *Maintain Tank Monitoring Surveillance Baselines*, to accommodate tank baseline changes in tank farms MCS.
- Initiated DST Annulus visual inspections for FY 2021, starting with AP-103 and AP-101.
- Initiated Ultrasonic testing at AW-105 DST.

Double-Shell Tank Integrity

Significant Planned Actions

- Complete the FY 2021 ultrasonic testing inspections at tanks 241-AW-105, 241-AW-104, and 241-AP-103
- Complete DST Annulus visual inspections at nine tanks
- Complete fabrication/receipt of Southwest Research Institute Guided Wave system

Ultrasonic Testing Report Status

- 241-AW-102 ultrasonic testing report released in June 2020.
- 241-AW-101 ultrasonic testing report released in August 2020.
- 241-AW-106 ultrasonic testing draft report in progress with anticipated completion in November 2020.

Significant Past Accomplishments

- Performed TFC-ENG-CHEM-P-57, *Intrusion Notification and Tank Leak Assessment Process*, on: 241-SX-104 and 241-T-109
- Completed visual inspections of: 241-TX-101; 241-TX-102; 241-TX-104; 241-TX-107; 241-S-103; 242-S-110; 241-BX-112; 241-BY-107; 241-SX-112; 241-TY-104; 241-TX-110; 241-BX-109; 241-B-107; 241-BX-108; and 241-BX-105
- Visual inspections for extent of condition, as a result of Tank 241-SX-112 findings in February 2020: 241-SX-112; 241-SX-109; 241-SX-108; 241-SX-111; 241-SX-110; and 241-SX-106
- Visual inspections for CHEM-P-57 tank leak assessment of 241-B-109
- Completed work package planning for visual inspection of five miscellaneous underground storage tanks.
- Completed the in-tank laser scan for dome spalling extent of condition, as a result of Tank 241-SX-112 findings in February 2020: 241-SX-112, 241-SX-111, and 241-SX-109.

Single-Shell Tank Integrity

Significant Planned Actions

- Perform TFC-ENG-CHEM-P-57 on tanks 241-TX-113 and 241-B-109 (in progress)
- Perform FY 2021 visual inspections of SSTs.

Issues

- Tank 241-SX-112 was inspected visually in late February. The concrete dome was inspected fully, and there were three spots of spalled concrete in the dome. While there have been past inspections of the tank, they did not include the full dome; and this was the first inspection to reflect the spalling. There was no evidence of structural issues; however, the dome loading is being limited to current levels until further analysis is complete. The full analysis may take several months to complete, but a structural analysis contract is in place with the Pacific Northwest National Laboratory. Tank 241-SX-112 was inspected visually again in late July. The inspection did not identify any changes in the condition of the spalled locations. Concrete was noted on the waste surface under the spalled locations, suggesting that the spalling took place after 1969 when the tank was pumped and taken out of service. Further analysis is ongoing.
- Tank 241-SX-109 was inspected visually in late July. Spalled concrete was identified in the northeast portion of the tank dome next to a rectangular construction manhole. Additional small/shallow spalling locations, similar to those in Tank 241-SX-112, were noted on the tank dome. Concrete has been noted on the waste surface, and, comparing to past visual inspections, suggests that the spalling occurred post-1996.

Issues (continued)

- Tank 241-SX-108 was inspected visually in early August. Minor spalled concrete was identified on the tank dome.
- Tank 241-SX-111 was inspected visually in mid-August. Spalled/Cracked concrete was identified in various locations on the tank dome. Concrete has been noted on the waste surface, and, when comparing to past visual inspections, suggests that the spalling occurred post-1987. On September 1, 2020, a laser scan of SX-111 was performed. Review of the laser scan results identified a new spalling location since the visual inspection.

Tank Sampling

Significant Past Accomplishments

- For October 2020, the following tank sampling was conducted:
  - Performed Tank 241-AX-102 post-retrieval solids grab sampling on October 1, 2020 and October 28, 2020. Six grab samples were received at the laboratory.
  - Performed Tank 241-AN-106 core sampling between October 22, 2020 and October 28, 2020. Four core samples were received at the laboratory.

Significant Planned Actions

- Tank 241-AN-106 core sampling is planned for November 2020.
- Tank 241-AN-106 liquid grab sampling is planned for December 2020.
- Tank 241-AP-107 qualification liquid grab sampling is planned for December 2020.
- Tank 241-AP-107 large-volume liquid grab sampling is planned for January 2021.
- Catch Tank C-301 grab sampling is planned for January 2021.

Best-Basis Inventory

Significant Past Accomplishments

- Completed in October 2020:
  - 241-A-103
  - 241-TX-114

Significant Planned Actions

- Best-basis inventory updates for the following tanks are currently planned to be completed in November 2020:
  - 241-AZ-101
  - 241-B-201
  - 241-BX-109
  - 241-BX-111
  - 241-SY-101.

Significant Past Accomplishments

- Submitted RPP-RPT-62684, *FY2019 Annual Interim Surface Barrier Monitoring Report*, Rev. 0, to Ecology via letter 20-TF-0095, "The U.S. Department of Energy, Office of River Protection, Transmittal of RPP-RPT-62684, Fiscal Year 2019 Annual Interim Surface Barrier Monitoring Report, Rev. 0, to Meet Hanford Federal Facility Agreement and Consent Order Milestone M-045-92AD" on October 7, 2020. This completed the M-045-92AD Milestone.
- Submitted revisions and comment responses to Ecology for RPP-RPT-59389, *Tier 2 Resource Conservation and Recovery Act (RCRA) Closure Action Plan for Waste Management Area C*; RPP-RPT-59390, *Tier 3 Resource Conservation and Recovery Act (RCRA) Component Closure Activity Plan for 241-C-200 Series Tanks*; and RPP-RPT-58858, *Tier 1 Closure Plan Single-Shell Tank System*.
- Continued permitting workshops with Ecology for the SST closure plans in the Hanford Sitewide permit. The workshops are currently being conducted as teleconferences.
- Submitted RPP-ENV-61497, *Preliminary Performance Assessment of Waste Management Area A-AX*, and RPP-ENV-62206, *Analysis of Post-Closure Groundwater Impacts From Hazardous Chemicals in Residual Wastes in Tanks and Ancillary Equipment at Waste Management Area A-AX*, on September 29, 2020, to meet the M-045-99 Milestone.
- Held two data quality objective meetings for WMA A/AX boundary with Ecology and EPA, September 1 and September 16, 2020.
- Held a data quality objective sampling meeting for WMA A/AX with Ecology on September 29, 2020.

Significant Past Accomplishments (continued)

- Held a sample depth meeting for D0006 in WMA A/AX with Ecology on October 14, 2020.
- Completed liner installation on the TX Evapotranspiration Basin on August 31, 2020.
- Report RPP-RPT-61684, Rev. 00B, was delivered to Ecology on October 10, 2019, to complete the M-045-92AC Milestone. Submitted RPP-RPT-61684, *Maintenance and Performance Monitoring Plan for the Interim Barriers Program*, Rev. 1, to Ecology via letter 20-TF-0069, "The U.S. Department of Energy, Office of River Protection, Transmittal of RPP-RPT-61684, Maintenance and Performance Monitoring Plan for the Interim Barriers Program, Rev. 1," on July 23, 2020. Ecology extended its review of the document until September 18, 2020 (20-NWP-137, "Extension of the Department of Ecology's (Ecology) Comment Review Period for the *Maintenance and Performance Monitoring Plan*, RPP-RPT-61684, Revision 1, for the Interim Barriers Program"). ORP received Ecology comments on the document on September 18, 2020 (20-NWP-159, "Department of Ecology's [Ecology] Comments on the United States Department of Energy – Office of River Protection's [USDOE-ORP] *Maintenance and Performance Monitoring Plan for the Interim Barriers Program*[RPP-RPT-61684, Rev. 1]). On October 8, 2020, ORP requested an additional 60 days past October 18, 2020 to provide responses to Ecology's comments on the primary document (20-TF-0101, "Response to 20-NWP-159 from the Washington State Department of Ecology). On October 9, 2020, Ecology approved ORP's request for a 60-day extension (20-NWP-164, "Approval of the United States Department of Energy's 60-day Extension Request for Comment Response

Significant Planned Actions

- Resolve Ecology's comments on RPP-RPT-59389, RPP-RPT-59390, and RPP-RPT-58858
- Respond to Ecology's comments on RPP-RPT-61684
- Release updated TPA Appendix I Performance Assessment documents incorporating Ecology comments as appropriate for WMA-C
- Complete the storm water drainage system for the TX evapotranspiration basin
- Hold additional WMAs A/AX boundary meetings for the purpose of reaching agreement. Next Scheduled meeting is November 3, 2020
- Award construction subcontract for TX Farm Barrier

Issues

- Issues available in the report

THE HANFORD SITE

Office of River Protection Consent Decree Monthly Report

Monthly Reporting Period

October 1 – 31, 2020

OFFICE OF RIVER PROTECTION
United States Department of Energy

December 2020

RICHLAND OPERATIONS OFFICE
United States Department of Energy

Significant Accomplishments during the Prior Month

- Completed Tank AX-102 camera / Computer Aided Design modeling system videos.
- Completed Tank AX-104 mechanical and electrical system installation.
- Completed Tank A-101 riser 12 thermocouple removal.
- Completed Tank AX-102 post retrieval residual waste sampling.

Ongoing Activities

- The residual volume measurement system is in final development and will be deployed, after the camera / Computer Aided Design modeling system, to calculate the Tank AX-102 residual waste volume.
- Work continued on the development of a Tank AX-102 third retrieval technology practicability evaluation. A chemical dissolution (acid) study and an alternative mechanical retrieval options study are underway in addition to the chemical analysis of the Tank AX-102 post retrieval samples, which will support the request to forgo a third retrieval technology in Tank AX-102.
- Continued Tank AX-104 mechanical and electrical system construction acceptance testing, operations acceptance testing, readiness, and retrieval operations.
- Continued Tank AX-103 on-dome electrical system installation.
- Continued Tank AX-103 hose-in-hose transfer line system installation.
- Continued Tank A-101 equipment removal activities.

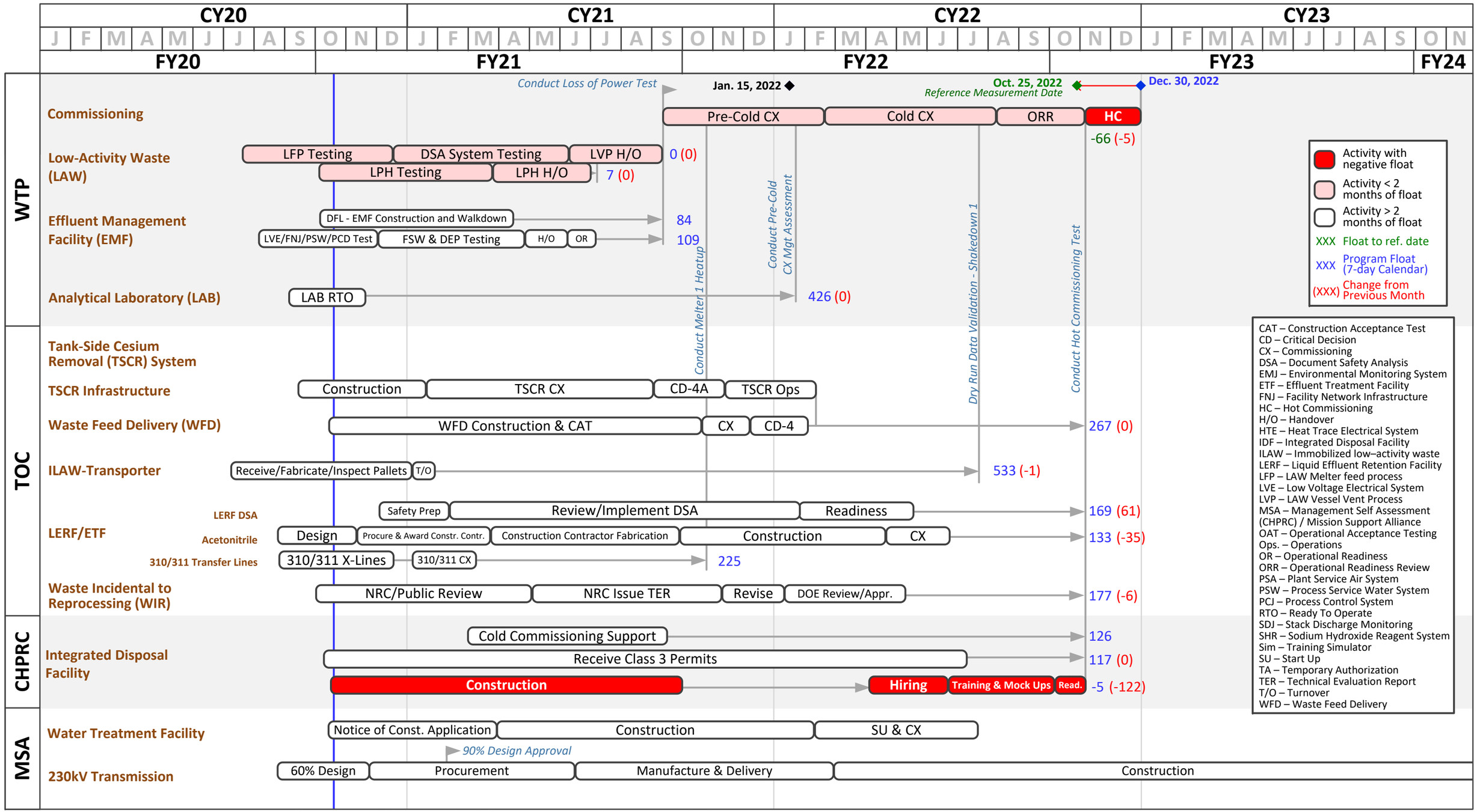
Significant Planned Activities in the Next Month

- Complete Tank AX-104 construction acceptance testing.
- Complete Tank AX-103 on-dome electrical system installation.
- Complete Tank AP-102 jumper removal and removal of remaining two sections (inside of AP Tank Farm) of the AY to AP hose-in-hose transfer line in support of future A Tank Farm hose-in-hose transfer line installation.

Issues

- Issues available in the report.

DFLAW Integrated Schedule – October 2020



October Month End Summary: Successful demonstration of hot commissioning slipped 5 days from the previous month. The new anticipated completion date for Hot Commissioning is December 30, 2022.

Working level schedule subject to change.

U.S. DEPARTMENT OF ENERGY

Data Date:
October 19, 2020

DFLAW Integrated Schedule Analysis - October 2020

Project	Owner Fed/Contractor	Float	Trend	Current Month Remarks	Project-Specific Critical Path
LAW	W. Abdul/ S. Miller	-5	-5	The WTP Project remains in Phase 2 of the Hanford Site Remobilization Plan with protocols resulting from the COVID -19 Pandemic still required. The Project Team remains focused on working the critical project activities, challenging the completion teams to advance the schedule, mitigating impacts, and getting to Loss of Power as soon as practical. However, because the full extent of impacts haven't been completely assessed the duration of Conduct Loss of Power –Test Prerequisites has been extended a total of 7 weeks to account for COVID impacts while they continue to be assessed and incorporated into the forecast schedule, no additional time has been added for October month end. Integrated Disposal Facility's hiring, training, and readiness activities impacted the start of Hot Commissioning Test by 5 days, causing a 5 day slip to the completion of hot commissioning.	LAW Melter Feed Process & LAW Vessel Vent Process, Document Safety Analysis System Testing, LAW Vessel Vent Process Handover
EMF	W. Abdul/ J. Andreatta	84	N/A	As of November 11, startup testing is complete for 15 systems that have been handed over to plant management. Startup testing is underway for 53 systems, and construction is nearing completion for the remaining 9 systems.	DFL - EMF Construction and Walkdown
LAB	J. Young/ G. Nemeth	426	0	During the October 2020 reporting period there was no change to the LAB RTO milestone completion date. The ORP/BNI team was focused on preparations for the upcoming BNI Management Assessment to demonstrate / evaluate LAB readiness. Inconsistency of Steam Plant availability challenged the certification schedule for the LAB fume hoods but at this time has not impacted the projected milestone completion date.	LAB Ready to Operate
TSCR/TFU/ WFD	J. Diediker/ K. Smith/ J. Follett	267	0	On track.	Fabrication, Construction Acceptance Testing, Commissioning, CD-4, TSCR Operations
ILAW	B. Tamang/ B. Cunningham	533	-1	On track.	Receive, Inspect, and Fabricate Pallets, Turnover
LERF/ETF	R. Valle (DOE) J. Foster (DSA) J. Filip (ACN) T. Sackett (310/311)	133	N/A	LERF DSA: The forecast finish for completion of the LERF DSA effort was accelerated as near-term activities were resequenced to be performed concurrrently. ETF Acetonitrile: The forecast finish for completion of the ETF Acetonitrile project was delayed due to re-extending the Final (90%) Design deliverable due date. In addition, the current FY21 activities were revised to update (a) the procurement and award of the construction subcontract, and (b) the corresponding construction activities. 310 & 311-PL Transfer Lines: The forecast finish for completion of the 310 & 311-PL Transfer Lines was delayed due to updating the project schedule to include the performance of an Operational Readiness Checklist (ORC) to commission the lines in FY21.	LERF DSA: Safety Basis Prep, Review/Implementation, Readiness ETF ACN: Design, Procure Constructor, Fabrication, Construction, Commissioning 310/311: Fieldwork, Commissioning
WIR	R. Bang/ M. Wheeler	177	-6	Minor change to the Public Meeting dates that impacted the overall WIR review/approval schedule	NRC/Public Review, NRC Issue TER, Revise WIR, DOE Review & Approval
IDF	B. Stetter/ R. Havenor	-5	-122	IDF received the RCR comments back from Ecology on the Class III permit for the active life of the facility. The team will continue to work on resolving the RCRs with Ecology and the team appreciates the feedback from WRPS. Schedule ties are being resolved to fix the -122 days of float, the level 1 schedule reflected a tie to an old activity 1W1500 that drove the negative float. Construction on the Pallet and Transporter inspection buildings are nearing completion, phase 2 security fencing initiated, and utility installs are ongoing with tie-ins expected shortly.	Receive Class 3 Permits, Hiring, Training, IDF Management Self Assessment
WTF*	C. Smith/ C. Burke	N/A	N/A	On track.	Notice of Construction Application, Manufacturing/Construction, and Startup/Commissioning
230kV Transmission Line*	C. Smith/ C. Burke	N/A	N/A	The 60% Design approval slipped 2 days from the previous month, but is still on track for the baseline schedule dates. Formal design review meetings between MSA/DOE and BPA have taken place.	60% Design, Contract Award, Construction, Procurement, SU & CX, Manufacture and Delivery, Construction, Closeout
Hot CX Completion	T. Fletcher/ V. McCain	-66	-5	Successful demonstration of hot commissioning slipped 5 days from the previous month. The new Hot Commissioning Completion date is December 30, 2022. There are negative 66 days of float to the Reference Measurement date of Oct 25, 2022.	LAW Melter Feed Process & Radioactive Liquid Waste Disposal testing, Document Safety Analysis System Testing, LAW LVP Handover, Pre-Cold CX, Cold CX, ORR, Hot CX

Note * MSA reliability projects will support sustained DFLAW operations and are not tied to commissioning, and therefore Total Float will not be compared in this table.

October 2020 ME Status

Schedule Data Date: October 19, 2020

Office of River Protection
Monthly Tri-Party Agreement Project Managers Meeting
December 10, 2020

ATTENDEES

Brian Harkins, ORP
Bryan Trimberger, ORP
Jeff Rambo, ORP
Erik Olds, ORP
Briana Lindberg, ORP
Rod Lobos, ORP
Paul Hernandez, ORP
Jeff Rambo, ORP
Jason Young, ORP
Larry Romine, ORP
Craig Whiteley, ORP
Isabelle Wheeler, ORP

Holly Bowers, WRPS
Maria Lopez, WRPS
Michael Turner, MSA
Stephanie Brasher, MSA
Steve Lowe, Ecology
Maria Skorska, Ecology
Jay Decker, Ecology
Jeff Lyon, Ecology
Jim Alzheimer, Ecology
Kyle Rucker, Ecology
John Temple, Ecology
Shelley Cimon, State of Oregon