

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

November 18, 2021

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Meeting held virtually, via MS TEAMS

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## CONCURRENCE SIGNATURES

In accordance with the Tri-Party Agreement Section 4.1, Project Manager Role, any agreements and commitments resulting from the meeting will be prepared and signed by all parties as soon as possible after the meeting. The undersigned indicate by their signatures (or their delegate's signature) that these meeting minutes reflect the actual discussion during this meeting. Signatures denote concurrence with the agreements and commitments resulting from this meeting and do not imply agreement with statements made during this meeting. Attachments to these meeting minutes are provided for informational purposes only.

**Brian A.  
Harkins**

Digitally signed by Brian A.  
Harkins  
Date: 2021.12.14 10:13:34  
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Date: \_\_\_\_\_

Brian Harkins, Project Manager  
DOE-ORP

**JASON YOUNG**

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YOUNG  
Date: 2021.12.14 10:10:08 -08'00'

Date: \_\_\_\_\_

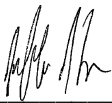
Jason Young, Project Manager  
DOE-ORP

**JASON YOUNG**

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YOUNG  
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Wahed Abdul, Project Manager  
DOE-ORP



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Lyon, Jeffery (ECY)  
Date: 2022.02.01  
14:41:37 -08'00'

Date: \_\_\_\_\_

Jeff Lyon, Project Manager  
Washington State Department of Ecology

**McDonald, Dan  
(ECY)**

Digitally signed by McDonald,  
Dan (ECY)  
Date: 2022.01.14 07:44:52  
-08'00'

Date: \_\_\_\_\_

Dan McDonald, Project Manager  
Washington State Department of Ecology

**Temple, John  
(ECY)**

Digitally signed by Temple,  
John (ECY)  
Date: 2022.01.13 16:46:20  
-08'00'

Date: \_\_\_\_\_

John Temple, Project Manager  
Washington State Department of Ecology

### NOTE:

The Parties agreed to allow Jason Young, ORP to sign the November 18, 2021 ORP TPA Project Managers Meeting minutes for Wahed Abdul, ORP who was on extended leave at the time of signing.

**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-1	critical decision
CERCLA	<i>Comprehensive Environmental Response, Compensation and Liability Act</i>
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
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
HIHTLs,	Hose-in-Hose Transfer Lines
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	<i>Resource Conservation and Recovery Act</i>
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-A/X	Waste Management Area A/AX
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 December 9, 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 September 1 – September 30, 2021, were entered into the Hanford Administrative Record on October 28, 2021.*

### 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 September 2021 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 – November 2021 Meeting."

**Action No. 1 (TF-21-02-01):** There was no update to this action. *This action remains open.*

**Action No. 2 (TF-21-02-03):** No meeting dates have been set, however ORP did propose a meeting for late December to discuss the submittal of the remaining addenda for in support of the Part V Closure Units, Single-Shell Tank System Closure Unit Group Permit modification. *This action remains open.*

**Action No. 3 (TF-21-05-02):** ORP proposed an early December meeting to present/brief to Ecology. *This action remains open.*

**Action No. 4 (TF-21-07-04):** As of 11/18/21 (today's meeting), Ecology is still waiting for ORP to set a date for a meeting. *This action remains open.*

**Action No. 5 (TF-21-07-06):** The parties met on 10/18/21 to discuss Ecology's comments and concerns on the SST Permitting/Closure Plan. Ecology scheduled a second meeting for 11/1/21, which was cancelled by ORP. Ecology stated it will not be proposing or attending any further meetings and has elevated this issue to their Deputy Director for further action. *This action remains open.*

**Action No. 8 (TF-21-09-01):** The parties have yet to meet on this issue as of today's meeting (11/18/21). ORP continues to formally status TPA milestone M-045-15 (Tank A-103 retrieval) as "At Risk" *This action remains open.*

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*New Action:* Ecology requested the meeting minutes from the Tank Integrity Expert Panel from ORP. The action will appear on next month's action tracking table.

## 2.0 KEY PROJECT UPDATES

- ORP provided updates of some key projects: The Tank Side Cesium Removal System (TSCR), the placement of the platform for core sampling at Tank AN-102; electrical installation infrastructure upgrades at A Tank Farm in preparation for continued A farm retrievals; line upgrades in AW Tank Farm; and upgrades at the Effluent Treatment Facility.
  - On the TSCR project, ORP noted that it has a Project Management Risk Committee meeting on November 23, 2021, which is a milestone in the Critical Decision 4A process. ORP reported that its baseline is at \$164 million, and it is currently running \$2 million under. ORP stated the balance of those funds will be used for Subproject 2 which will address long term cesium removal capability. The scope will be defined after the TSCR system has operated and a revised alternative of analysis is completed. While it could be another TSCR or multiple TSCRs, the path forward is not yet known. Regardless, no additional TSCR units would go forward after the initial TSCR has run. ORP would then do an alternatives analysis to determine next steps (if any). ORP reported preparations for Critical Decision 4 (CD-4) for upcoming direct feed waste activity items such as the waste transfer feed line to the Waste Treatment Plant is near completion. ORP projected the start of TSCR operations middle of January 2022, and then CD-4 will be done in late March 2022. ORP noted, that despite COVID impacts, the project still started on time, was ahead of schedule, and was under the full budget. ORP reported that two major readiness assessments from September yielded some corrective actions, but that those actions are rapidly being closed. Ecology asked if there were any other issues – outside of corrective actions that ORP was dealing with, specifically, clogging screens and leaking. ORP replied it had conducted significant testing of the equipment and didn't have any concerns. ORP did note, however, that there was a pre-start concern about radiation controls at the TSCR process enclosures. To address this, ORP installed a weather enclosure within the interior shield wall and a pass-through area, as well as planning to install a weather enclosure over the stairs and decking leading into the process enclosure. Lastly, Ecology asked about the status of the first TSCR Ion-Exchange Columns being filled with resin. ORP replied that it was currently loading the first column with medium, with two more to follow.

## 3.0 SYSTEM PLAN

### Significant Past Accomplishments

- The U.S. Environmental Protection Agency (EPA), U.S. Department of Energy (DOE), and Washington State Department of Ecology (Ecology) met in the first mediated session

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

of the “Holistic Negotiations” on June 25, 2020. There were weekly negotiation sessions held in April 2021.

- On January 27, 2021, DOE submitted signed change package M-62-21-01 to Ecology for evaluation to extend the M-062-45 Milestone date 90 days due to “Holistic Negotiations” progress. This change package was not concurred on by Ecology within the 14-day period and therefore went into dispute on February 10, 2021.

## **Significant Planned Actions in the Next Six Months**

- Discuss disputes with regard to milestone M-062-45 and its associated milestones during “Holistic Negotiations.”
- Kick off System Plan, Rev. 10, scenario selection discussions in the spring of 2022.

## **Issues/Other Items**

- 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.

## **4.0 ACQUISITION OF NEW FACILITIES/SUPPLEMENTAL TREATMENT AND RCRA PART B PERMIT APPLICATIONS**

### **Significant Past Accomplishments**

- Completed M-090-14 Milestone, “Submit CD-1 for Facility to Store Spent Ion Exchange Columns Prior to DFLAW.” ORP transmitted letter 20-ECD-0050, “Submittal of CD-1 for Facility to Store Spent Ion Exchange Columns Prior to Direct Feed Low-Activity Waste Tri-Party Agreement Milestone M-090-14,” to Ecology on October 23, 2020.

### **Significant Planned Actions in the Next Six Months**

- None reported

### **Issues/Other Items**

- None reported

## **5.0 SUPPLEMENTAL TREATMENT AND RESOURCE CONSERVATION AND RECOVERY ACT PART B PERMIT APPLICATIONS**

### **Significant Past Accomplishments**

- See section 2.0 “System Plan”

### **Significant Planned Actions in the Next Six Months**

- 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.

### **Issues**

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

- None reported

## 6.0 LOW ACTIVITY WASTE PRETREATMENT SYSTEM

### Significant Past Accomplishments

- Completed M-062-50 Milestone, "Submit as a Secondary Document, a Mass Balance Flow." ORP transmitted letter 20-ECD-0057, "Completion of Tri-Party Agreement Milestone M-062-50" to Ecology on December 4, 2020.

### Significant Planned Actions in the Next Six Months

- None reported

### Issues/Other Items

- None reported

## 7.0 TANK SIDE CESIUM REMOVAL SYSTEM (TSCR)

### Significant Past Accomplishments

- ORP approved the Documented Safety Analysis (DSA) addendum Technical Safety Requirements.
- Completed water run operations with the four rotating shifts.
- Completed the Tank-Side Cesium Removal System (TSCR) operational acceptance test.
- Received the initial Low-Activity Waste Pretreatment System RCRA permit from Ecology to support final construction activities. Submitted a follow-up RCRA permit modification to reflect changes to the facility configuration and provided requested facility documentation in preparation for facility startup.
- Completed electrical tie-ins for the TSCR enclosures.
- Completed the TSCR shield wall installation and fencing around the ion exchange column storage pad.
- Completed TSCR construction.
- Completed turnover from construction to operations.
- Washington River Protection Solutions LLC completed the management self-assessment in mid-July.
- Completed the operational readiness checklist and turned the system over to the Operations organization.
- Completed the Tank Operations Contract readiness assessment.
- Initiated the DOE readiness assessment.

### Significant Planned Actions in the Next Six Months

- Receive Ecology's approval of the RCRA permit (draft permit conditions received from Ecology)
- Receive Ecology's approval of the air operating permit
- Conduct the DOE readiness assessment of the contractor (updated as complete)



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- ORP to submit and receive DOE Office of Environmental Management approval of the Critical Decision 4A package to allow TSCR operations to commence.

## Issues/Other Items

- None reported.

## **8.0 242-A EVAPORATOR STATUS**

### Significant Past Accomplishments

- Continued replacement of the raw water strainer in the 242-A Evaporator Water Service Building
- 242-A Evaporator DSA safety system upgrades
- Installed the new transfer line between AW-B and AW-02A pits, welded the primary line and completed ultrasonic testing and hydrostatic pressure testing of the primary line
- Initiated annual electrical outage for electrical equipment, cleaning, and inspection preventative maintenance
- Initiated replacement of Electrical Panelboard A
- Completed 242-A Evaporator ventilation control system upgrades

### Significant Planned Actions in the Next Six Months

- Procure new PB-1 and PB-2 replacement pumps
- Complete installation of the 242-A Evaporator raw water strainer
- Continue excavation in AW Tank Farm for the 242-A Evaporator slurry and feed transfer line replacement
- Continue pipe in pipe installation in AW Tank Farm for the 242-A Evaporator slurry and feed transfer line replacement
- Initiate testing of the 242-A Evaporator DSA safety system upgrades

## 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 was 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.
- After experiencing delays, the project expects delivery of the PB-1 and PB-2 replacement pumps by January 2022.

## **9.0 LIQUID EFFLUENT RETENTION FACILITY AND 200 AREA EFFLUENT TREATMENT FACILITY**

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## **Significant Past Accomplishments**

- Total fiscal year (FY) 2021 processing volume: approximately 3.2 million gallons.
- Completed installation of the Liquid Effluent Retention Facility (LERF) Basin 44 cover.
- Completed installation for the Effluent Treatment Facilities (ETF) monitoring and control system upgrade. The FY 2021 portion of the upgrade included the ETF main treatment train, secondary treatment train, and local control units 15 and 17.
- Completed installation for the ETF ultraviolet/oxidation upgrade.
- Began fieldwork activities for the LERF Basin 41 installation.
- Began fieldwork activities for the ETF load-in station expansion upgrade.
- Began fieldwork activities for the ETF motor control center upgrade.
- Completed design of the ETF freeze protection upgrade.
- Completed design of the ETF instrument air upgrade.
- Completed design of the ETF chiller addition.

## **Significant Planned Actions in the Next Six Months**

- Complete testing and turnover of the LERF Basin 44 upgrade, as the previous floating cover is degraded
- Complete testing and turnover of the ETF monitoring and control system upgrade, the previous system is outdated
- Complete testing and turnover of the ETF ultraviolet/oxidation upgrade, as the previous system is no longer supported by the manufacturer
- Continue fieldwork activities for the LERF Basin 41 installation for additional capacity
- Continue fieldwork activities for the ETF load-in station expansion upgrade to support enhanced facility operation
- Continue fieldwork activities for the ETF motor control center upgrade to improve electrical infrastructure for enhanced facility operation
- Begin fieldwork activities for the ETF supplemental organic treatment (i.e., steam stripping) system to provide the capability to treat the Waste Treatment and Immobilization Plant Direct-Feed Low-Activity Waste effluent
- Continue procurements and fabrications for the ETF redundant filtration, carbon dioxide membrane, freeze protection, instrument air, vessel offgas system, 2025ED load in station expansion, brine and acetonitrile storage tanks, and chiller addition upgrade projects.

## **LERF Volumes**

- See pg. 21 of the September 2021 TPA Monthly Report.

## **Issues/Other Items**

- ORP reported some impacts to fieldwork activities for the ETF supplemental organic treatment system to provide the capability to treat the WTP Direct-feed Low-activity Waste effluent. Vessels are either under construction or being crated for shipping. But there is an impact due to COVID supply-chain issues on getting sheet steel, which means vendors are experiencing difficulties getting the materials needed to make the vessels.

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## 9.0 TANK SYSTEM UPDATE

### 9.1 Double-Shell Tank Integrity

#### Significant Past Accomplishments

- Completed Tank 241-AY-101 ultrasonic testing report
- Completed Tank 241-AP-106 ultrasonic testing report.

#### Significant Planned Actions

- Conduct ultrasonic testing inspections at Tanks 241-AN-101, 241-AN-107, 241-AP-105, and 241-SY-101
- Conduct double-shell tank annulus visual inspections for FY 2022 in Tanks 241-AN-101 through 241 AN 107, 241-AZ-101, and 241-AZ-102
- Complete report development for the nine double-shell tank annulus visual inspections performed in FY 2021

#### Ultrasonic Testing Report Status

- Tank 241-AW-106 ultrasonic testing report was released as RPP-RPT-62764, Ultrasonic Inspection and Air Slot Visual Inspection Results for Double Shell Tank 241-AW-106 FY 2020, on February 17, 2021
- Tank 241-AW-105 ultrasonic testing report was released as RPP-RPT-62939, Ultrasonic Inspection and Air Slot Visual Inspection Results for Double Shell Tank 241-AW-105 FY 2020, on March 8, 2021
- Tank 241-AW-104 ultrasonic testing report was released as RPP-RPT-63014, Ultrasonic Inspection and Air Slot Visual Inspection Results for Double Shell Tank 241-AW-104 FY 2021, on May 20, 2021
- Tank 241-AP-103 ultrasonic testing report was released as RPP-RPT-63146, Ultrasonic Inspection and Air Slot Visual Inspection Results for Double Shell Tank 241-AP-103 FY 2021, on July 20, 2021
- Tank 241-AZ-102 ultrasonic testing report was released as RPP RPT 63185, Ultrasonic Inspection and Air Slot Visual Inspection Results for Double Shell Tank 241-AZ-102 FY 2021, on July 27, 2021
- Tank 241-AY-101 ultrasonic testing report was released as RPP-RPT-63314, Ultrasonic Inspection and Air Slot Visual Inspection Results for Double-Shell Tank 241-AY-101 – FY 2021, on September 14, 2021
- Tank 241-AP-106 ultrasonic testing report was released as RPP-RPT-86189561895, Ultrasonic Testing Inspection and Air Slot Visual Inspection Results for Double -Shell Tank 241-AP-106 –FY2019 and FY 2021, on September 20, 2021

#### Issues/Other Items

- Ecology requested the latest two Double Shell Tank Integrity Reports (RPP-RPT-63314, Ultrasonic Inspection and Air Slot Visual Inspection Results for Double-Shell Tank 241-AY-101 – FY 2021, released 9/14/22, and RPP-RPT-86189561895, Ultrasonic Testing

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Inspection and Air Slot Visual Inspection Results for Double -Shell Tank 241-AP-106 – FY2019 and FY 2021, released 9/20/21.

## 9.2 Single-Shell Tank Integrity

### Significant Past Accomplishments

- Performed TFC-ENG-CHEM-P-57, Intrusion Notification and Tank Leak Assessment Process, on Tank 241-B-109 and 241-TX-113
- Completed and transmitted single-shell tank (SST) farm dome deflection survey report (RPP-RPT-55202, Dome Survey Report for Hanford Single-Shell Tanks) to Ecology
- Completed laser scan inspections in Tanks 241-SX-107, 241-SX-109, 241-SX-111, and 241-SX-112. Note: ORP noted that an additional scan of 241-SX-111 had been completed on 11/17/21, which still showed tank spalling, but no change from the previous scan.
- Performed a visual inspection of Tank 241-SX-107
- Completed report development for the SST integrity visual inspections performed in FY 2021
- Visual inspections were completed for the following SSTs:
  - Tank 241-B-106 (completed November 2020)
  - Tanks 241-B-108 and 241-BY-112 (completed December 2020)
  - Tanks 241-BY-104, 241-BY-108, and 241-AX-104 (completed January 2021)
  - Tanks 241-B-109 and 241-BY-103 (completed February 2021)
  - Tanks 241-U-108, 241-U-110, 241-U-112, 241-U-202, 241-U-203, and 241-U-204 (completed March 2021)
  - Tanks 241-U-201 and 241-S-112 (completed April 2021)
  - Tank 241-AX-103 (completed July 2021)
  - Tanks 241-SX-111, 241-SX-109, and 241-SX-109 (completed August 2021)

### Significant Planned Actions in the Next Six Months

- Complete development and release of final SX Farm Extent of Condition report
- Initiate FY 2022 SST visual inspections

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

## RPP-9937 Rev. 4 Updates

- Baseline Change Authorizations implemented:
  - Three interstitial liquid level baseline change authorizations were implemented (Tanks 241-BY-101, 241 BY 105, and 241-BY-106)
  - One surface level baseline change authorization was implemented (Tank 241-T-111)
- Specification Limit Exceedance:
  - None

## Issues/Other Items

- None reported.

## **10.0 IN-TANK CHARACTERIZATION AND SUMMARY**

### **10.1 Reports Completed or Released**

ORP completed twelve reports and released two. For details, please refer to page 28 of the September 2021 TPA monthly report.

### **10.2 Tank Sampling**

#### Significant Past Accomplishments

For September 2021, the following tank sampling was conducted:

- Completed Tank 241-AY-102A grab sampling. Six samples were received at the 222 S Laboratory
- Completed Tank 241-AN-101 grab sampling. Eighteen samples were received at the 222-S Laboratory

#### Significant Planned Actions in the Next Six Months

- Complete Tank 241-AZ-102 grab sampling in November 2021
- Complete Tank 241-AP-101 large volume grab sampling in October 2021
- Complete Tank 241-AZ-101 grab sampling in March 2022
- Complete Tank 241-AP-106 grab sampling in March 2022
- Complete grab sampling of Tank AN-102 in December 2021
- Complete core sampling of Tank AN-102 in December 2021

## Issues/Other Items

- None reported.

### **10.3 Best-Basis Inventory Updates**

#### Significant Past Accomplishments

- Best-basis inventory updates for the following tanks was completed in September 2021: Tanks 241-AN-101, 241-AP-103, 241-AP-104, 241-AP-108, 241-AX-102, 241-AX-104, 241-AZ-102, 241-B-109, and 241-T-201

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## **Significant Planned Actions in the Next Six Months**

Best-basis inventory updates for the following tanks are currently planned to be completed in October 2021:

- Tank 241-BY-101
- Tank 241-C-105

## **Issues**

- None reported

## **11.0 SINGLE-SHELL TANK CLOSURE PROGRAM**

### **Significant Past Accomplishments**

ORP reported the following completed activities:

- Responded to Ecology comments on RPP-RPT-62684 via letter 21-TF-000239, "Response to 20-NWP-199 from the Washington State Department of Ecology," dated January 20, 2021. Ecology comments had been received via letter 20-NWP-199, "Department of Ecology's (Ecology) Review Comment Record on the United States Department of Energy – Office of River Protection's FY2019 Annual Interim Surface Barrier Monitoring Report, RPP-RPT-62684, Revision 0," dated December 23, 2020.
- 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.
- Completed installation of change and break trailer installations, as well as construction mobilization for TX Tank Farm barrier construction on March 11, 2021.
- Completed southeast subgrade modifications on Tanks 241-TX-101, 241-TX-102, 241 TX 105, 241-TX 106, 241-TX-109, and 241-TX-110 for the TX Tank Farm Barrier construction on May 27, 2021.
- Completed southwest subgrade modifications on Tanks 241-TX-103, 241-TX-104, 241 TX 107, 241-TX-108, 241-TX-111, and 241-TX-112 for the TX Tank Farm barrier construction on August 21, 2021.
- Completed north subgrade modifications on Tanks 241-TX-113, 241-TX-114, 241 TX 115, 241-TX-116, 241-TX-117, and 241-TX-118 on September 1, 2021.
- Completed asphalt installation on the southeast farm area for the TX Tank Farm barrier construction on August 25, 2021
- Completed asphalt installation on the southwest farm area for the TX Tank Farm barrier construction on September 8, 2021

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- Completed asphalt installation on the north farm area for the TX Tank Farm barrier construction on September 15, 2021
- Completed contractor turnover of the TX Tank Farm surface barrier, stormwater conveyance system, and evapotranspiration basin to contractor operations on September 30, 2021
- Ecology approved RPP-RPT-61684, Maintenance and Performance Monitoring Plan for the Interim Barriers Program, Rev. 2, via letter 21-NWP-021, "Approval of Maintenance and Performance Monitoring Plan for the Interim Barriers Program, RPP-RPT-61684, Revision 2," on February 3, 2021
- Completed direct push activities for WMA A/AX Tank Farm Focus Area 2
- Continued direct push activities at T Tank Farm for the Tank 241-T-102 and Tank 241-T-105 investigation
- Completed Milestone M-045-56 annual meeting on June 17, 2021. Meeting notes were approved and included in the Administrative Record
- Submitted to Ecology RPP-PLAN-64407, Waste Management Area Integration Study – Waste Management Area A-AX, Rev. 0, to meet Milestone M 045-97, "Submit to Ecology as a Primary Document, a Waste Management Area Integration Study for WMA A/AX, as described in HFFACO Appendix I.2.1.1." RPP-PLAN-64407 was transmitted to Ecology via 21-TF-002876 on September 17, 2021
- Submitted to Ecology RPP-RPT-63200, FY2020 Annual Interim Surface Barrier Monitoring Report, Revision 0, to meet Milestone M-045-92AE, "Submit yearly reports summarizing the results of maintenance and performance monitoring activities for the previous year, and research completed to evaluate new technologies." RPP-RPT-63200 was transmitted to Ecology via 21-TF-002982 on September 17, 2021. Where appropriate, the report also incorporated comments Ecology provided on RPP-RPT-62684, FY2019 Annual Interim Surface Barrier Monitoring Report, Rev. 0.

### **Significant Planned Activities**

ORP reported the following planned activities:

- Resolve Ecology's comments on RPP-RPT-59389, RPP-RPT-59390, and RPP-RPT-58858
- Release updated TPA Appendix I performance assessment documents, incorporating Ecology comments as appropriate for WMA-C
- Complete TX Tank Farm barrier construction to meet Milestone M-045-92Y, "Complete Construction of Barrier 3 in 241-TX Farm"
- Complete and submit to Ecology the U Tank Farm barrier design to meet Milestone M-045-92Z, "Submit to Ecology Design for Barrier 4 in 241-U Farm"
- Submit to Ecology a revision to RPP-RPT-61684 upon completion of the U Tank Farm barrier design

### **Issues/Other Items**

- See pages 8-9 of the September 2021 ORP Consent Decree Monthly Report for a full listing.

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## 12.0 SINGLE-SHELL TANK RETRIEVAL PROGRAM

### Significant Past Accomplishments

Refer to the Consent Decree portion of these meeting minutes (page 17, Section 2.0).

### Significant Planned Activities in the Next Six Months

Refer to the Consent Decree portion of these meeting minutes (page 18, Section 2.0).

### Issues

Refer to the Consent Decree portion of these meeting minutes (page 18, Section 2.0).

## 12.0 TANK OPERATIONS CONTRACT OVERVIEW

The earned value data can be viewed in the September 2021 ORP TPA Monthly Report on page 38.



# 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 September 2021 Consent Decree Monthly Report).

### Consent Decree Issues and Action Items

For reference, see attached "ORP/Ecology TPA and CD Agreements, Issues and Action Items November 2021 Meeting."

### Action Items

**Action No. 1 (WTP-21-02-01):** The action was closed, per email from D. McDonald (ECY) to M. Turner (HMIS) on 10/21/21. *The action is closed.*

**Action No. 2 (WTP-21-09-01):** ORP noted it would be sending a meeting invitation to Ecology soon. *The action remains open.*

**Action No. 3 (WTP-21-10-01):** ORP reported that individual component failures, are not a concerning issue right now at the Low Activity Waste (LAW) Facility, with many lessons learned from the Effluent Management Facility evaporator were applied. At EMF, testing often showed not that a component had failed, but that it may not have been calibrated to the setting needed. So as the project gets into LAW water runs, it has done "grooming activities" to validate proper settings prior to going into broader testing, with multiple aspects in conjunction with one another. Regarding hiring issues, ORP reported nothing outside normal turnover of staff, but was preparing for any potential, sudden loss of staff due to proposed Federal or State COVID vaccination mandates, and those who would choose to quit or be terminated rather than receiving a vaccination. Ecology accepted this response. *The action is closed.*

## 2.0 SINGLE-SHELL TANK RETRIEVAL PROGRAM

### Significant Accomplishments during the Prior Month

- Submitted the Tank AX-102 retrieval completion certification to the Washington State Department of Ecology
- Placed POR624 diversion box in A Tank Farm for support of retrieval of the A Tank Farm tanks
- Removed the pump and slurry distributor from AP01A pit in preparation for replacement with the new retrieval supernate pump for A Tank Farm retrievals
- Completed demolition of the Tank A-102 air lift circulator building

### On-Going Activities

- Continued retrieval of Tank AX-103 waste. The waste volume retrieved through September was approximately 87,000 gallons of waste or 77 percent. (Note: ORP provided an update. As of 11/16/21, calculations showed 90% retrieved. Also, on the same date, ORP switched to the second retrieval technology, which is high pressure.)

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

- Continued preparation of Tank AX-104 third retrieval technology practicability evaluation.
- Continued Tank A-101 equipment removal activities in preparation for new retrieval equipment installation.
- Continued the A Tank Farm electrical infrastructure installation.
- Continued installation of new A/AX/AY Tank Farm access control tent to mitigate COVID-19 social distancing impacts.

## **Significant Planned Activities in the Next Month**

- Place POR626 splitter box in A Tank Farm for support of retrieval of the A Tank Farm tanks.

## **Issues/Other Items**

- ORP referred to pages 8-9 of the September 2021 Consent Decree Monthly Report for the complete listing of issues.

## **3.0 TANK WASTE RETRIEVAL WORK PLAN STATUS**

### **Significant Accomplishments during the Prior Month**

- None reported.

### **Significant Planned Activities in the Next Month**

- Continue drafting the Tank A-101 tank waste retrieval work plan.

## **4.0 WASTE TREATMENT AND IMMOBILIZATION PLANT PROJECT**

- ORP reported less impact from positive COVID cases, but also noted it was preparing for potential staffing shortages from a COVID vaccine mandate.

### **Project Schedule and Cost Variance Performance**

The earned value data can be viewed in the September 2021 ORP Consent Decree Monthly Report on page 18.

### **Issues/Other**

- Ecology asked about software issues throughout the project. ORP stated they are working three test efficiency reports, as well as some other issues, which are not all software issues. ORP reported some of the issues were relatively straightforward, but that those are the non-software related. The software issues are currently being worked on, but ORP estimated it would probably be another two or three weeks before it can fully assess those issues. ORP also reported adding a fifth shift to allow for more efficient training.

## **5.0 PRETREATMENT FACILITY**

### **Project Schedule and Cost Variance Performance**

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

The earned value data can be viewed in the September 2021 ORP Consent Decree Monthly Report on page 22.

## **Significant Accomplishments during the Prior Month**

- None reported.

## **Ongoing Activities:**

- 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.

## **Significant Planned Activities in the Next Month**

- None reported

## **Issues/Other Items**

- None reported

## **6.0 HIGH-LEVEL WASTE FACILITY**

### **Project Schedule and Cost Variance Performance**

The earned value data can be viewed in the September 2021 ORP Consent Decree Monthly Report on page 25.

## **Significant Accomplishments during the Prior Month**

- Completed 60 percent design review of chemical reagent (nitric acid reagent / sodium hydroxide reagent) systems and stack discharge monitoring system.

## **Ongoing Activities:**

- Continued to advance system designs and hazard analysis for key mechanical and process systems.
- Continued to upgrade melter structural design and incorporate potential design modifications.
- Continued to manage suspended plant equipment purchase orders to reduce storage and suspension costs and to evaluate ways to reduce procurement liability.
- Continued to implement asset maintenance at the HLW Facility to protect equipment and structures and to ensure design documents are maintained.

## **Significant Planned Activities in the Next Month**

- Contractor submittal of Preliminary Documented safety Analysis to Support Construction Authorization; HLW Facility Specific Information, Rev. 10 for DOE approval.
- Contractor submittal of fiscal year 2022 work plan for DOE approval.

## **Issues/Other Items**

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

- Ecology asked for a copy of the contractor's fiscal year 2022 work plan. ORP agreed to provide.
- ORP reported that staff temporarily assigned to support DFLAW are gradually returning to support HLW.

## 7.0 LOW-ACTIVITY WASTE FACILITY

### Project Schedule and Cost Variance Performance

The earned value data can be viewed in the September 2021 ORP Consent Decree Monthly Report on page 28.

### Significant Accomplishments during the Prior Month

- The Startup organization completed handover of the LAW process control systems to Plant Management for operation.
- The Startup organization completed handover of the LAW stack discharge monitoring system to Plant Management for operation.
- The Startup organization completed handover of the LAW glass former reagent system to Plant Management for operation.
- The Startup organization completed handover of the LAW autosampling system to Plant Management for operation.
- The Startup organization completed handover of the LAW programable protection system to Plant Management for operation.
- The Startup organization completed handover of the LAW secondary offgas / vessel vent process system passive gas analyzer system to Plant Management for operation.
- The Startup organization completed handover of the LAW secondary offgas / vessel vent process system to Plant Management for operation.

### On-Going Activities

- The Startup organization continued testing of LAW Facility systems including safety instrumented function tests.

### Significant Planned Activities in the Next Month

- None reported

### Issues/Other Items

- ORP reported the completed handover of the LAW autosampling system to Plant Management for operation was a major step for the LAW Facility.

## 8.0 BALANCE OF FACILITIES

### Project Schedule and Cost Variance Performance

The earned value data can be viewed in the September 2021 ORP Consent Decree Monthly Report on page 30.

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

## **Significant Accomplishments during the Prior Month**

- The Plant Management organization completed testing and tuning for lithium carbonate glass forming materials and initiated testing and tuning for magnesium silicate glass forming materials in the Glass Former Facility.

## **On-going Activities:**

- The Plant Management organization conducted steam system and instrumentation performance testing in the Effluent Management Facility and continued preparations for evaporator operation.
- The Plant Management organization continued troubleshooting of control system software throughout BOF.
- The Plant Management organization continued testing and tuning for the Glass Former Facility.
- The Plant Management organization continued operations, testing, and tuning of the Steam Plant.
- The Plant Engineering organization continued to support BOF and Effluent Management Facility system testing and tuning.

## **Significant Planned Activities in the Next Month**

- The Plant Management organization will conduct the WTP loss of power commissioning test. (Note: as of today's meeting, ORP reported the test was completed and was successful.)

## **Issues/Other Items**

- ORP reported operations in the steam plant continue to be challenged by a nozzle in the boilers that will give proper performance at the upper end of the boiler's range. ORP continues to troubleshoot and evaluate. The State of Oregon asked if installing new, to-scale boilers was being considered in lieu of trying to align the right nozzles. ORP responded that it was being considered, but the focus was still on trying to achieve the right nozzle output.

## **9.0 ANALYTICAL LABORATORY**

### **Project Schedule and Cost Variance Performance**

The earned value data can be viewed in the September 2021 ORP Consent Decree Monthly Report on page 32.

### **Significant Accomplishments during the Prior Month**

- None reported.

### **Ongoing Activities:**

- The Plant Management organization continued to support testing of the LAW Facility autosampling system.
- The Plant Management organization continued to focus on LAB workflow improvement.

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

- The Plant Management organization continued recruiting, hiring, and training personnel for LAB operations.

**Significant Planned Activities in the Next Month**

- None reported

**Issues/Other Items**

- None reported

## ORP/Ecology TPA and CD Agreements, Issues, and Action Items – November 2021 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.

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

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<sup>1</sup> Washington State Department of Ecology

<sup>2</sup> Environmental Protection Agency

<sup>3</sup> Resource Conservation & Recovery Act

<sup>4</sup> RCRA Facility Investigation

<sup>5</sup> Corrective Measure Study

## ORP/Ecology TPA and CD Agreements, Issues, and Action Items – November 2021 Meeting

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<sup>6</sup> corrective measures will comply with ARARs<sup>7</sup>.”

- 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<sup>8</sup> 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.”

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<sup>6</sup> 1984 Hazardous and Solid Waste Amendments

<sup>7</sup> Applicable or Relevant and Appropriate Requirements

<sup>8</sup> Treatment, Storage, and/or Disposal



## ORP/Ecology TPA and CD Agreements, Issues, and Action Items – November 2021 Meeting

#	Action ID Start Date	Action	Updates / Needs for Closure	Actionee(s)	Status/ Date Closed
1	TF-21-02-01 11 Feb 2021	<p>Ecology requested a ‘dry run’ meeting for Informational meeting with Tribes regarding the upcoming SST/WMA-C closure RCRA permitting Actions. ORP to provide a target date for a proposed public informational workshop briefing on permitting activities associated with WMA-C closure, which will take place prior to formal public comment. ORP will also identify a date for a proposed dry-run of this meeting.</p> <p>Note: ORP will have a better estimate on that date after discussions with it’s the DOE / Ecology Permitting group</p>	<p>DOE is in agreement and will plan to conduct a briefing covering the general overall closure process and Appendix I PA for WMA-C.</p> <p>The audience for the briefing will be, Tribes, Oregon, HAB, Public.</p> <p>Timing will be approximately 1 month before the public comment period begins for the permitting action.</p> <p>It will be clarified for all participants that any comments should be submitted as part of the permitting action.</p> <p><b>DOE will present on the following:</b></p> <ul style="list-style-type: none"> <li>Overview of TPA closure process</li> <li>Results of Appendix I PA</li> <li>Summary of 435.1 PA</li> <li>Summary of RCRA CA</li> <li>Summary of Past Leaks</li> <li>Summary of Baseline Risk Assessment</li> </ul> <p><b>Ecology will present on the following:</b></p>	ORP	Open

**ORP/Ecology TPA and CD Agreements, Issues, and Action Items – November 2021 Meeting**

#	Action ID Start Date	Action	Updates / Needs for Closure	Actionee(s)	Status/ Date Closed
			<p>Closure Plans</p> <p>5/13/21: ORP to forward e-mails to Ecology for review about dry run concerns.</p> <p>7/8/21: ORP stated it was waiting for a proposed date for the public meeting before scheduling the dry run.</p> <p>8/12/21: ORP noted it was is still working to address Ecology comments on the Baseline Risk Assessment, and until those comments are addressed, it cannot commit to a meeting date.</p> <p>9/9/21: ORP stated it had received comments from Ecology on its initial responses to Ecology’s comments on the Baseline Risk Assessment, which it is responding to. The document is not final.</p> <p>10/14/21: ORP reported receiving Ecology letter 21-NWP-17, dated October 6th, 2021, which submitted Ecology’s comments on RPP-RPT-58329 (Risk Assessment for Contaminated Soils, Vadose Zone, Sediments for Waste Management Area C). ORP suggested it would be better to resolve the comments on Rev. 3A of the Baseline Risk Assessment prior to engaging Tribes and stakeholders.</p>		

## ORP/Ecology TPA and CD Agreements, Issues, and Action Items – November 2021 Meeting

#	Action ID Start Date	Action	Updates / Needs for Closure	Actionee(s)	Status/ Date Closed
2	TF-21-02-03 11 Feb 2021	ORP to provide Ecology a status on when it will be submitting the remaining draft addenda (specifically Addendum L) in support of the Part V Closure Units, Single-Shell Tank System Closure Unit Group Permit modification.	<p>5/13/21: Ecology has provided Addendum L to ORP for comment/response. Ecology requesting status on remaining addenda.</p> <p>ORP has provided a schedule for all the addenda, with the exception of Addendum L.</p> <p>8/12/21: ORP and have discussed criteria for Addendum L during recent SST Permit meetings, though the action remains open.</p> <p>9/9/21: No change in status.</p> <p>10/14/21: ORP offered 11/18/21 as the date for submittal of the remaining draft addenda.</p>	ORP	Closed  (Tentative)
3	TF-21-05-02 13 May 2021	ORP to status Ecology on status of PC-5000 leak detection	<p>8/12/21: 242-A Evaporator permit condition III.4.C.1.c requires the permittees to submit a schedule for completing the permit modification and upgrades by 08/27/21. Meetings will recommence once the schedule has been submitted.</p> <p>9/9/21: Ecology received the schedule for completion of the permit modifications and is reviewing.</p> <p>10/14/21: No change in status.</p>	ORP	Open
4	TF-21-07-04 20 July 2021	Tracking of Ecology's Comments on the DOE-ORP DST Leak Response Plan	Parties have agreed to meet. ORP to provide meeting times to ECY.	ORP	Open

## ORP/Ecology TPA and CD Agreements, Issues, and Action Items – November 2021 Meeting

#	Action ID Start Date	Action	Updates / Needs for Closure	Actionee(s)	Status/ Date Closed
		(RPP-PLAN-64245, REV. 0) Reference: 21-NWP-109 (07/19/21)	10/18/21: ECY has not received a response on proposed meeting times.		
5	TF-21-07-06 27 July 2021	ORP and Ecology to discuss and resolve concerns to reach an agreement on completing the SST Permitting Plan.	9/9/21: ORP stated it is targeting 9/16/21 for providing written comments to Ecology on the SST permitting plan comments it received from Ecology.  10/14/21: ORP reported that comments were provided to Ecology on 9/17/21 and Ecology responses were provided on 10/13/21. Meeting is scheduled for 10/18/21 to discuss.	ORP	Open
6	TF-21-09-01 09 Sept. 2021	ORP and Ecology to meet to discuss tank retrieval schedule for tank 241-A-103/TPA Milestone M-045-15, currently stasured as “At Risk”	Per the TPA, ORP must provide a TPA Change Control Form by 07/01/22 (90 days prior to the milestone due date of 09/30/22).  10/14/21: Ecology requested ORP status this milestone as “To Be Missed”.	ORP	Open

## ORP/Ecology TPA and CD Agreements, Issues, and Action Items – November 2021 Meeting

#	Action ID Start Date	Action	Updates / Needs for Closure	Actionee(s)	Status/ Date Closed
1	WTP-21-02-01	ECY to setup walkdown for LAW verification	Action closed per email from D. McDonald to M. Turner (10/21/21)	Jay Decker	Closed
2	WTP-21-09-01	ORP to schedule a meeting with Ecology to discuss design modifications to the ventilation systems within the LAW Facility		Jason Young	Open
3	WTP-21-10-01	ORP to status Ecology on two issues at LAW, including recovery actions taken or to be taken: <ul style="list-style-type: none"> <li>- Hiring delays for craft and maintenance workers</li> <li>- Component failures</li> </ul>		Jason Young	Open



# THE HANFORD SITE

## Office of River Protection Tri-Party Agreement

Monthly Reporting Period  
September 1 – 31, 2021

## Significant Past Accomplishments

- The U.S. Environmental Protection Agency (EPA), U.S. Department of Energy (DOE), and Washington State Department of Ecology (Ecology) met in the first mediated session of the “Holistic Negotiations” on June 25, 2020. Two negotiation sessions were held in August 2021.
- On January 27, 2021, DOE submitted signed change package M-62-21-01 to Ecology for evaluation to extend the M-62-45 Milestone date 90 days, due to “Holistic Negotiations” progress. This change package was not concurred on by Ecology within the 14-day period; therefore, the change package went into dispute on February 10, 2021.

## Significant Planned Actions in the Next Six Months

- Discuss disputes regarding Milestone M-062-45 and its associated milestones during “Holistic Negotiations.”
- Kick off *System Plan*, Rev. 10, scenario selection discussions in the spring of 2022.

## Issues

- Ecology and DOE Office of River Protection (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.

Comments applicable to each issues section in this presentation:

- On March 24, 2020, the Hanford Site moved to an essential mission-critical operations posture in recognition of increasing Coronavirus Disease 2019 (COVID-19) concerns. During this time, the majority of the Hanford Site workforce transitioned to telework, and a limited number of workers reported to the site to perform activities necessary to maintain the site in a safe condition, protective of the community, the region, and the environment.
- 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.
- The Hanford Site transitioned to Phase 2 beginning August 31, 2020. In Phase 2, the workforce that has been performing portable work via telework will generally continue to telework. The majority of the workforce performing nonportable work will return to the site to progress work activities, leveraging established COVID-19 controls.
- 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.



## Significant Past Accomplishments

- Completed M-090-14 Milestone, “Submit CD-1 for Facility to Store Spent Ion Exchange Columns Prior to DFLAW7.” ORP transmitted letter 20-ECD-0050, “Submittal of CD-1 for Facility to Store Spent Ion Exchange Columns Prior to Direct Feed Low-Activity Waste Tri-Party Agreement Milestone M-090-14,” on October 23, 2020, to Ecology.

## Significant Planned Actions in the Next Six Months

- None.

## Significant Past Accomplishments

- None.

## 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.

## Significant Past Accomplishments

- Completed M-062-50 Milestone, “Submit to Ecology as a Secondary Document, a Mass Balance Flow.” ORP transmitted letter 20-ECD-0057, “Completion of Tri-Party Agreement Milestone M-062-50,” on December 4, 2020, to Ecology.

## Significant Past Accomplishments

- ORP approved the Documented Safety Analysis (DSA) addendum Technical Safety Requirements.
- Completed water run operations with the four rotating shifts.
- Completed the Tank-Side Cesium Removal System (TSCR) operational acceptance test.
- Received the initial Low-Activity Waste Pretreatment System RCRA permit from Ecology to support final construction activities. Submitted a follow-up RCRA permit modification to reflect changes to the facility configuration and provided requested facility documentation in preparation for facility startup.
- Completed electrical tie-ins for the TSCR enclosures.
- Completed the TSCR shield wall installation and fencing around the ion exchange column storage pad.
- Completed TSCR construction.

## Significant Past Accomplishments (cont.)

- Completed turnover from construction to operations.
- Washington River Protection Solutions LLC completed the management self-assessment in mid-July.
- Completed the operational readiness checklist and turned the system over to the Operations organization.
- Completed the Tank Operations Contract readiness assessment.
- Initiated the DOE readiness assessment.

## Significant Planned Actions in the Next Six Months

- Receive Ecology's approval of the TSCR RCRA permit
- Receive Ecology's approval of the TSCR air operating permit
- Complete the DOE readiness assessment of the contractor
- ORP to submit and receive DOE Office of Environmental Management approval of the Critical Decision 4A package to allow TSCR operations to commence

## Significant Past Accomplishments

- Continued replacement of the raw water strainer in the 242-A Evaporator Water Service Building
- 242-A Evaporator DSA safety system upgrades
- Installed the new transfer line between AW-B and AW-02A pits, welded the primary line and completed ultrasonic testing and hydrostatic pressure testing of the primary line
- Initiated annual electrical outage for electrical equipment, cleaning, and inspection preventative maintenance
- Initiated replacement of Electrical Panelboard A
- Completed 242-A Evaporator ventilation control system upgrades

## Significant Planned Actions in the Next Six Months

- Procure new PB-1 and PB-2 replacement pumps
- Complete installation of the 242-A Evaporator raw water strainer
- Continue excavation in AW Tank Farm for the 242-A Evaporator slurry and feed transfer line replacement
- Continue pipe in pipe installation in AW Tank Farm for the 242-A Evaporator slurry and feed transfer line replacement
- Initiate testing of the 242-A Evaporator DSA safety system upgrades



## 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 was 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 fiscal year (FY) 2021 processing volume: approximately 3.2 million gallons.
- Completed installation of the Liquid Effluent Retention Facility (LERF) Basin 44 cover.
- Completed installation for the Effluent Treatment Facilities (ETF) monitoring and control system upgrade. The FY 2021 portion of the upgrade included the ETF main treatment train, secondary treatment train, and local control units 15 and 17.
- Completed installation for the ETF ultraviolet/oxidation upgrade.
- Began fieldwork activities for the LERF Basin 41 installation.
- Began fieldwork activities for the ETF load-in station expansion upgrade.
- Began fieldwork activities for the ETF motor control center upgrade.
- Completed design of the ETF freeze protection upgrade.
- Completed design of the ETF instrument air upgrade.
- Completed design of the ETF chiller addition.

## Significant Planned Actions in the Next Six Months

- Complete testing and turnover of the LERF Basin 44 upgrade, as the previous floating cover is degraded
- Complete testing and turnover of the ETF monitoring and control system upgrade, the previous system is outdated
- Complete testing and turnover of the ETF ultraviolet/oxidation upgrade, as the previous system is no longer supported by the manufacturer
- Continue fieldwork activities for the LERF Basin 41 installation for additional capacity
- Continue fieldwork activities for the ETF load-in station expansion upgrade to support enhanced facility operation
- Continue fieldwork activities for the ETF motor control center upgrade to improve electrical infrastructure for enhanced facility operation

## Significant Planned Actions (cont.)

- Begin fieldwork activities for the ETF supplemental organic treatment (i.e., steam stripping) system to provide the capability to treat the Waste Treatment and Immobilization Plant Direct-feed Low-activity Waste effluent
- Continue procurements and fabrications for the ETF redundant filtration, carbon dioxide membrane, freeze protection, instrument air, vessel offgas system, 2025ED load in station expansion, brine and acetonitrile storage tanks, and chiller addition upgrade projects

## LERF Volumes

Description	242AL-42 (Basin 42)	242AL-43 (Basin 43)	242AL-44 <sup>b</sup> (Basin 44)
AZ-301 Condensate	-	-	-
Mixed Waste Trench 31 and 34	+ 3,000	-	-
Other <sup>a</sup>	+ 1,200	-	-
<b>Total Volume</b>	<b>1,280,000</b>	<b>6,555,000</b>	<b>0<sup>c</sup></b>

<sup>a</sup> 325 Building retention process sewer and solid waste landfill lysimeter.

<sup>b</sup> Liquid Effluent Retention Facility Basin 44 was placed out-of-service on January 14, 2021.

<sup>c</sup> Liquid Effluent Retention Facility Basin 44 was emptied to allow for cover replacement.

Data Date: September 30, 2021.

Values shown in gallons.

## Significant Past Accomplishments

- Completed Tank 241-AY-101 ultrasonic testing report
- Completed Tank 241-AP-106 ultrasonic testing report

## Significant Planned Actions

- Conduct ultrasonic testing inspections at Tanks 241-AN-101, 241-AN-107, 241-AP-105, and 241-SY-101
- Conduct double-shell tank annulus visual inspections for FY 2022 in Tanks 241-AN-101 through 241 AN 107, 241-AZ-101, and 241-AZ-102
- Complete report development for the nine double-shell tank annulus visual inspections performed in FY 2021

## Ultrasonic Testing Report Status

- Tank 241-AW-106 ultrasonic testing report was released as RPP-RPT-62764, *Ultrasonic Inspection and Air Slot Visual Inspection Results for Double Shell Tank 241-AW-106 FY 2020*, on February 17, 2021
- Tank 241-AW-105 ultrasonic testing report was released as RPP-RPT-62939, *Ultrasonic Inspection and Air Slot Visual Inspection Results for Double Shell Tank 241-AW-105 FY 2020*, on March 8, 2021
- Tank 241-AW-104 ultrasonic testing report was released as RPP-RPT-63014, *Ultrasonic Inspection and Air Slot Visual Inspection Results for Double Shell Tank 241-AW-104 FY 2021*, on May 20, 2021
- Tank 241-AP-103 ultrasonic testing report was released as RPP-RPT-63146, *Ultrasonic Inspection and Air Slot Visual Inspection Results for Double Shell Tank 241-AP-103 FY 2021*, on July 20, 2021
- Tank 241-AZ-102 ultrasonic testing report was released as RPP RPT 63185, *Ultrasonic Inspection and Air Slot Visual Inspection Results for Double Shell Tank 241-AZ-102 FY 2021*, on July 27, 2021

## Ultrasonic Testing Report Status (cont.)

- Tank 241-AY-101 ultrasonic testing report was released as RPP-RPT-63314, *Ultrasonic Inspection and Air Slot Visual Inspection Results for Double-Shell Tank 241-AY-101 – FY 2021*, on September 14, 2021
- Tank 241-AP-106 ultrasonic testing report was released as RPP-RPT-86189561895, *Ultrasonic Testing Inspection and Air Slot Visual Inspection Results for Double -Shell Tank 241-AP-106 –FY2019 and FY 2021*, on September 20, 2021



## Significant Past Accomplishments

- Performed TFC-ENG-CHEM-P-57, *Intrusion Notification and Tank Leak Assessment Process*, on Tank 241-B-109 and 241-TX-113
- Completed and transmitted single-shell tank (SST) farm dome deflection survey report (RPP-RPT-55202, *Dome Survey Report for Hanford Single-Shell Tanks*) to Ecology
- Completed laser scan inspections in Tanks 241-SX-107, 241-SX-109, 241-SX-111, and 241-SX-112
- Performed a visual inspection of Tank 241-SX-107
- Completed report development for the SST integrity visual inspections performed in FY 2021

## Significant Past Accomplishments (cont.)

- Visual inspections were completed for the following SSTs:
  - Tank 241-B-106 (completed November 2020)
  - Tanks 241-B-108 and 241-BY-112 (completed December 2020)
  - Tanks 241-BY-104, 241-BY-108, and 241-AX-104 (completed January 2021)
  - Tanks 241-B-109 and 241-BY-103 (completed February 2021)
  - Tanks 241-U-108, 241-U-110, 241-U-112, 241-U-202, 241-U-203, and 241-U-204 (completed March 2021)
  - Tanks 241-U-201 and 241-S-112 (completed April 2021)
  - Tank 241-AX-103 (completed July 2021)
  - Tanks 241-SX-111, 241-SX-109, and 241-SX-109 (completed August 2021)

## Significant Planned Actions in the Next Six Months

- Complete development and release of final SX Farm Extent of Condition report
- Initiate FY 2022 SST visual inspections

## **RPP-9937, *Single-Shell Tank System Leak Detection and Monitoring Functions and Requirements Document*, Rev. 4 Updates**

- Baseline Change Authorizations implemented:
  - Three interstitial liquid level baseline change authorizations were implemented (Tanks 241-BY-101, 241 BY 105, and 241-BY-106)
  - One surface level baseline change authorization was implemented (Tank 241-T-111)
- Specification Limit Exceedance:
  - None

## **Issues**

- Issues available in the report

## Significant Past Accomplishments

- For September 2021, the following tank sampling was conducted:
  - Completed Tank 241-AY-102A grab sampling. Six samples were received at the 222 S Laboratory
  - Completed Tank 241-AN-101 grab sampling. Eighteen samples were received at the 222-S Laboratory

## Significant Planned Actions

- Complete Tank 241-AZ-102 grab sampling in November 2021
- Complete Tank 241-AP-101 large volume grab sampling in October 2021
- Complete Tank 241-AZ-101 grab sampling in March 2022
- Complete Tank 241-AP-106 grab sampling in March 2022
- Complete grab sampling of Tank AN-102 in December 2021
- Complete core sampling of Tank AN-102 in December 2021

## Significant Past Accomplishments

- Best-basis inventory updates for the following tanks was completed in September 2021: Tanks 241-AN-101, 241-AP-103, 241-AP-104, 241-AP-108, 241-AX-102, 241-AX-104, 241-AZ-102, 241-B-109, and 241-T-201

## Significant Planned Actions in the Next Month

- Best-basis inventory updates for the following tanks are currently planned to be completed in October 2021:
  - Tank 241-BY-101
  - Tank 241-C-105

## Significant Past Accomplishments

- Responded to Ecology comments on RPP-RPT-62684 via letter 21-TF-000239, “Response to 20-NWP-199 from the Washington State Department of Ecology,” dated January 20, 2021. Ecology comments had been received via letter 20-NWP-199, “Department of Ecology’s (Ecology) Review Comment Record on the United States Department of Energy – Office of River Protection’s FY2019 Annual Interim Surface Barrier Monitoring Report, RPP-RPT-62684, Revision 0,” dated December 23, 2020.
- 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.

## Significant Past Accomplishments (cont.)

- Continued permitting workshops with Ecology for the SST closure plans in the Hanford Sitewide permit. The workshops are currently being conducted as teleconferences.
- Completed installation of change and break trailer installations, as well as construction mobilization for TX Tank Farm barrier construction on March 11, 2021.
- Completed southeast subgrade modifications on Tanks 241-TX-101, 241-TX-102, 241 TX 105, 241-TX 106, 241-TX-109, and 241-TX-110 for the TX Tank Farm Barrier construction on May 27, 2021.
- Completed southwest subgrade modifications on Tanks 241-TX-103, 241-TX-104, 241 TX 107, 241-TX-108, 241-TX-111, and 241-TX-112 for the TX Tank Farm barrier construction on August 21, 2021.
- Completed north subgrade modifications on Tanks 241-TX-113, 241-TX-114, 241 TX 115, 241-TX-116, 241-TX-117, and 241-TX-118 on September 1, 2021.



## Significant Past Accomplishments (cont.)

- Completed asphalt installation on the southeast farm area for the TX Tank Farm barrier construction on August 25, 2021
- Completed asphalt installation on the southwest farm area for the TX Tank Farm barrier construction on September 8, 2021
- Completed asphalt installation on the north farm area for the TX Tank Farm barrier construction on September 15, 2021
- Completed contractor turnover of the TX Tank Farm surface barrier, stormwater conveyance system, and evapotranspiration basin to contractor operations on September 30, 2021
- Ecology approved RPP-RPT-61684, *Maintenance and Performance Monitoring Plan for the Interim Barriers Program*, Rev. 2, via letter 21-NWP-021, “Approval of *Maintenance and Performance Monitoring Plan for the Interim Barriers Program*, RPP-RPT-61684, Revision 2,” on February 3, 2021
- Completed direct push activities for WMAA/AX Tank Farm Focus Area 2

## Significant Past Accomplishments (cont.)

- Continued direct push activities at T Tank Farm for the Tank 241-T-102 and Tank 241-T-105 investigation
- Completed Milestone M-045-56 annual meeting on June 17, 2021. Meeting notes were approved and included in the Administrative Record
- Submitted to Ecology RPP-PLAN-64407, *Waste Management Area Integration Study – Waste Management Area A-AX*, Rev. 0, to meet Milestone M 045-97, “Submit to Ecology as a Primary Document, a Waste Management Area Integration Study for WMAA/AX, as described in HFFACO Appendix I.2.1.1.” RPP-PLAN-64407 was transmitted to Ecology via 21-TF-002876 on September 17, 2021

## Significant Past Accomplishments (cont.)

- Submitted to Ecology RPP-RPT-63200, *FY2020 Annual Interim Surface Barrier Monitoring Report*, Revision 0, to meet Milestone M-045-92AE, “Submit yearly reports summarizing the results of maintenance and performance monitoring activities for the previous year, and research completed to evaluate new technologies.” RPP-RPT-63200 was transmitted to Ecology via 21-TF-002982 on September 17, 2021. Where appropriate, the report also incorporated comments Ecology provided on RPP-RPT-62684, *FY2019 Annual Interim Surface Barrier Monitoring Report*, Rev. 0.

## Significant Planned Actions

- Resolve Ecology's comments on RPP-RPT-59389, RPP-RPT-59390, and RPP-RPT-58858
- Release updated TPA Appendix I performance assessment documents, incorporating Ecology comments as appropriate for WMA-C
- Complete TX Tank Farm barrier construction to meet Milestone M-045-92Y, "Complete Construction of Barrier 3 in 241-TX Farm"
- Complete and submit to Ecology the U Tank Farm barrier design to meet Milestone M-045-92Z, "Submit to Ecology Design for Barrier 4 in 241-U Farm"
- Submit to Ecology a revision to RPP-RPT-61684 upon completion of the U Tank Farm barrier design

## Issues

- Issues available in the report.



# THE HANFORD SITE

## Office of River Protection Consent Decree Monthly Report

Monthly Reporting Period  
September 1 – 31, 2021

## Significant Accomplishments during the Prior Month

### **Completed Accomplishments:**

- Submitted the Tank AX-102 retrieval completion certification to the Washington State Department of Ecology
- Placed POR624 diversion box in A Tank Farm for support of retrieval of the A Tank Farm tanks
- Removed the pump and slurry distributor from AP01A pit in preparation for replacement with the new retrieval supernate pump for A Tank Farm retrievals
- Completed demolition of the Tank A-102 air lift circulator building

## Significant Accomplishments during the Prior Month

### Ongoing Activities:

- Continued retrieval of Tank AX-103 waste. The waste volume retrieved through September was approximately 87,000 gallons of waste or 77 percent.
- Continued preparation of Tank AX-104 third retrieval technology practicability evaluation.
- Continued Tank A-101 equipment removal activities in preparation for new retrieval equipment installation.
- Continued the A Tank Farm electrical infrastructure installation.
- Continued installation of new A/AX/AY Tank Farm access control tent to mitigate COVID-19 social distancing impacts.



## Significant Planned Activities in the Next Month

- Place POR626 splitter box in A Tank Farm for support of retrieval of the A Tank Farm tanks

## Issues

- Issues available in the report

**Office of River Protection  
Monthly Tri-Party Agreement Project Managers Meeting  
November 18, 2021**

**ATTENDEES**

Briana Lindberg, DOE-ORP  
Brian Harkins, DOE-ORP  
Janet Diediker, DOE-ORP  
Larry Romine, DOE-ORP  
Sara Austin, DOE-ORP  
Geoffrey Morse, DOE-ORP  
Wahed Abdul, DOE-ORP  
Jason Young, DOE-ORP  
Becky Blackwell, DOE-ORP  
Paul Hernandez, DOE-ORP  
Bibek Tamang, DOE-ORP  
Mat Irwin, DOE-ORP  
Maria Lopez, WRPS  
Holly Bowers, WRPS  
Robin Varljen, WRPS

Dan Parker, HMIS  
Eric Van Mason, HLMI  
Michael Turner, HMIS  
Scott Davis, HMIS  
Stephanie Brasher, HMIS  
Jeff Lyon, Ecology  
John Temple, Ecology  
Dan McDonald, Ecology  
Jim Alzheimer, Ecology  
Andrew Pomiak, Ecology  
Deidra Hahn, Ecology  
Steve Lowe, Ecology  
Jay Decker, Ecology  
Shelley Cimon, State of Oregon