

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

January 9, 2020

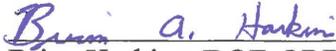
---

2440 Stevens Center  
Richland, Washington

This page intentionally left blank.

**CONCURRENCE SIGNATURES**

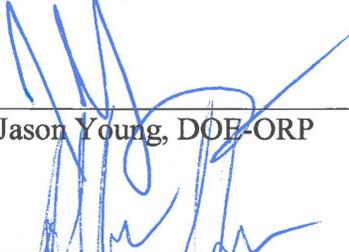
The undersigned TPA Project Managers (or their delegates) indicate by their signatures that these meeting minutes reflect the actual occurrences of the above-dated Tri-Party Agreement Project Managers' Meeting.

  
\_\_\_\_\_  
Brian Harkins, DOE-ORP

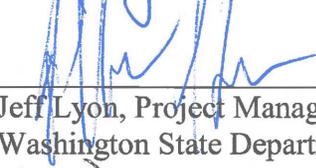
Date: 2/25/20

  
\_\_\_\_\_  
Mat Irwin, DOE-ORP

Date: 2/27/20

  
\_\_\_\_\_  
Jason Young, DOE-ORP

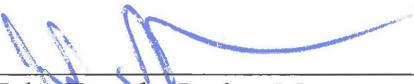
Date: 2/27/20

  
\_\_\_\_\_  
Jeff Lyon, Project Manager  
Washington State Department of Ecology

Date: 3/2/2020

  
\_\_\_\_\_  
Dan McDonald, Project Manager  
Washington State Department of Ecology

Date: 3-2-2020

  
\_\_\_\_\_  
John Temple, Project Manager  
Washington State Department of Ecology

Date: 3/4/2020

# TRI-PARTY AGREEMENT MONTHLY PROJECT MANAGERS MEETING

## TERMS

BBI	Best Basis Inventory
BOF	Balance of Facilities
CD	Consent Decree
CD-3B	critical decision
CERCLA	<i>Comprehensive Environmental Response, Compensation and Liability Act</i>
DFLAW	direct feed low-activity waste
DOE	U. S. Department of Energy
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	<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-C	Waste Management Area C
WRPS	Washington River Protection Solutions LLC
WTP	Waste Treatment and Immobilization Plant

# TRI-PARTY AGREEMENT 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 February 13, 2020, at 2440 Stevens Center.

### 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 November 1- November 30, 2019, were entered into the Administrative Record on December 18, 2019.*

### 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 November 2019 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 – January 2020 Meeting.")

**Action No. 1 (TF-16-11-04):** ORP reported no change in status. Action remains On Hold.

**Action No. 2 (TF-18-10-01):** ORP noted the Factory Acceptance Testing (FAT) will start in April. ORP extended an invitation to Ecology to attend the testing, or in lieu, receive a briefing on it. Action remains Open.

**Action No. 3 (TF-18-10-02):** No change in status. Ecology committed to revisit/review the issue. Action remains open.

**Action No. 4 (TF-19-04-03):** Ecology agreed to close the action, but remains committed to engaging EPA.

**Action No. 5 (TF-19-12-01):** ORP will be addressing this issue by providing a briefing to Ecology in today's meeting.

Ecology asked that a new Action be added: "Provide status of TPA milestone M-062-50 (Provide Mass Balance Flow to Ecology as a Secondary Document).

# TRI-PARTY AGREEMENT MONTHLY PROJECT MANAGERS MEETING

## 2.0 SYSTEM PLAN

ORP reported the System Plan 9 report had been submitted to Ecology in September 2019, and that Ecology had concurred with the selected scenarios. Discussions on the scenarios continue between ORP and Ecology.

## 3.0 ACQUISITION OF NEW FACILITIES

ORP reported there has been no change in this activity.

## 4.0 SUPPLEMENTAL TREATMENT AND PART B PERMIT APPLICATIONS

ORP reported there has been no change in this activity.

## 5.0 LOW-ACTIVITY WASTE PRETREATMENT SYSTEM

ORP reported there has been no change in this activity.

## 6.0 TANK-SIDE CESIUM REMOVAL SYSTEM

### Significant Past Accomplishments

ORP reported that it had submitted additional technical and design information for tank-side cesium removal (TSCR) system Resource Conservation and Recovery Act permit application to Ecology on October 31, 2019.

### Significant Planned Actions in the Next Six Months

ORP reported that the TSCR system fabricated equipment has been shipped to Richland from South Carolina and factory acceptance/testing is expected to begin in January 2020.

### Issues/Other Items

ORP cited the on-going issue of the Hanford Ambient Air Boundary and its potential impact on TSCR permitting for air emissions (which will be vented to the AP Tank Farm). Ecology offered to get with its subject-matter-experts to status.

Ecology asked about TPA milestone M-062-54A (Submit Permit Application for AP Tank Farm Modifications to support TSCR), due in July 2020. Ecology stated that they were unsure of ORP's definition of the completion criteria for this milestone and that there may not be agreement on that criteria. The Parties agreed to take the action of clarifying completion criteria.

## 7.0 242-A EVAPORATOR STATUS

### Significant Past Accomplishments

ORP reported it had completed annual electrical preventative maintenance activities and the 60 percent design for 242-A Evaporator transfer line replacement, as well as received the new instrument air dryer.

# TRI-PARTY AGREEMENT MONTHLY PROJECT MANAGERS MEETING

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

ORP reported it will procure new PB-1 and PB-2 replacement pumps, and remove the feed line jumper from the pump room to support evaporator campaign 11. ORP also noted they will complete the 100 percent design for the 242-A Evaporator transfer line replacement, replace the sock filter assembly on the filtered raw water system, and initiate 242-A Evaporator safety systems upgrades engineering design.

## **Issues/Other Items**

ORP responded to an Ecology inquiry from the December 2019 ORP Project Managers Meeting regarding safety upgrades at the 242-A Evaporator. ORP said the upgrades in fire detection and seismic event response (upgrading from manual to automatic) stemmed from a Defense Nuclear Facilities Board observation from a site inspector report as opposed to a formal recommendation. ORP said the actions should be completed by the end of the fiscal year. Ecology remarked that the changes should be noted in the facility description in the permit.

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

### **Significant Past Accomplishments**

ORP reported the total fiscal year 2020 processing volume was approximately 1 million gallons.

ORP reported ETF Basin 42 cleanout activities continue. Also, the 30 percent design review for LERF Basin 41 is complete. ORP is exploring potentially putting LERF Basin 41 into service to provide extra surge capacity and backup for existing basins.

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

ORP reported that the ETF is undergoing several upgrades and major reworks to support Waste Treatment Plant operations. Among the upgrades are:

- Commissioning of the new peroxide decomposer vessel and media system; complete replacement of select facility stairs and ladders to improve safety; begin upgrade of ETF reverse osmosis system to replace leak-prone and obsolete system pumps; replacement of ETF evaporator drain valve; and begin replacement of ETF uninterruptable power supply, rough filter system, chiller and dilute caustic tank.

ORP reported that it plans to complete a system upgrade of the ETF brine-load out to manage secondary waste and a chiller upgrade to improve reliability. There is a complete listing of several planned projects in the November 2019 TPA Monthly Report.

### **Issues/Other Items**

Work has paused on the LERF Basin 44 cover replacement project while nuclear safety evaluations are performed. Evaluations are due to visual indication of solid material in the basin and sample results from that material. ORP is evaluating a repair or replacement of the cover. Pumping of the basin continues.

# TRI-PARTY AGREEMENT MONTHLY PROJECT MANAGERS MEETING

Ecology asked about a potential issue with elevated iodine levels at ETF related to that facility's planned support of low-activity waste (LAW) and WTP operations. ORP responded that ETF was never designed to handle a dose-rate associated with iodine that would be required for LAW/WTP support. ORP characterized it as a risk that they, along with the Pacific Northwest National Laboratory and Vitreous State Laboratory at Catholic University in Washington D.C. were working on via conducting of preliminary testing. ORP committed to keeping Ecology apprised on developments, but cautioned it was very early in the process.

## 9.0 TANK SYSTEM UPDATE

### 9.1 Double-Shell Tank Integrity

#### Significant Past Accomplishments

ORP noted the status of the following activities:

- Received an annulus floor cleaner to clean the annulus floor of tank 241-AY-101
- Received and installed a retractable corrosion monitoring probe in tank 241-AY-101
- Ultrasonic testing inspections were completed for the following tanks:
  - 241-AP-107, 241-AP-108, 241-AN-102, 241-AP-106, 241-AP-102 (annulus floor ultrasonic testing only; air slot inspection)
- Completed enhanced annulus visual inspections for tanks:
  - 241-AN-101, 241-AN-102, 241-AN-103, 241-AN-104 241-AN-105, 241-AN-106, 241-AN-107, 241-AZ-101, 241-AZ-102

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

ORP plans to complete the design of a primary tank bottom volumetric inspection system to be deployed into the annulus of double-shell tanks and used to characterize regions of the primary tank bottom. The system is "guided wave".

ORP noted it was procuring a contract for a retractable corrosion monitoring probe in tanks 241-AW-104 and 241-AP-102. ORP is also fabricating leak detection inspection tool for deployment between the secondary liner and the double-shell tanks.

#### Issues/Other Items

ORP had no issues to report.

### 9.2 Single-Shell Tank Integrity

#### Significant Past Accomplishments

ORP reported it had completed visual inspections for 17 tanks in FY 2019: 241-AX-102, 241-B-102, 241-B-103, 241-B-110, 241-B-111, 241-B-112, 241-BX-104, 241-C-106, 241-SX-114, 241-SX-115, 241-T-103, 241-T-108, 241-T-202, 241-U-101, 241-U-106, 241-U-109, and 241-TY-106.

# TRI-PARTY AGREEMENT MONTHLY PROJECT MANAGERS MEETING

ORP completed the TFC-ENG-CHEM-D-42, *Tank Leak Assessment Process* on tanks 241-T-101 and 241-T-103.

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

ORP plans to complete the TFC-ENG-CHEM-D-42, *Tank Leak Assessment Process* on tanks 241-SX-104, 241-T-109 and 241-T-113.

ORP referred to page 18-19 of the November 2019 TPA monthly report for the list of tanks to be visually inspected.

## **Issues/Other Items**

Ecology asked that ORP begin noting in the TPA monthly report not just when DST integrity reports were completed or released, but also which reports were in progress. ORP agreed to do so.

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

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

See page 21 of the November 2019 TPA monthly report for the full list.

### **10.2 Tank Sampling**

#### **Significant Past Accomplishments**

ORP reported core sampling completed on tank 241-AN-107 (six samples) and grab sampling completed on tank 241-AP-104. In addition, ORP completed grab sampling on the first of two risers at tank 241-A-104. ORP noted that the 241-AP-104 sampling was done as part of the AP tank farm repurposing effort.

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

See page 22 of the November 2019 TPA monthly report for the list of future tank sampling planned. ORP noted that at the time of this meeting, two tanks in AP tank farm and one tank in AN tank farm had been sampled.

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

#### **Significant Past Accomplishments**

ORP reported that best-basis inventory updates for tanks 241-AX-102 and 241-AZ-102 were completed.

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

ORP reported best-basis inventory updates were planned for tanks 241-AP-102, 241-AP-106, 241-AZ-101, 241-SY-102, 241-U-101 and 241-U-109.

# TRI-PARTY AGREEMENT MONTHLY PROJECT MANAGERS MEETING

## Issues/Other Items

ORP reported it had re-assayed tank 241-C-106 (originally assayed in 2003), and found that the waste volume calculations showed the waste volume to be under the TPA required 360 cubic feet residual waste threshold, which, if not able to be attained, requires a waiver request and approval from Ecology and the U.S. Environmental Protection Agency. Though the formal best-basis inventory findings will not be finalized until February, ORP announced its preliminary findings at today's meeting. ORP noted that this new sampling of tank 241-C-106 was done with much higher resolution cameras and better lighting than the previous sampling done in 2003. Ecology stated that this new sampling was not done with Ecology consultation, and its opinion, may not have followed the TPA Appendix H process.

## 11.0 SINGLE-SHELL TANK CLOSURE PROGRAM

### Significant Past Accomplishments

ORP reported the following activities:

- 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 single-shell tank closure plans in the Hanford Sitewide permit.
- DOE/ORP-2014-02, *Clean Closure Practicality Demonstration for the Single-Shell Tanks*, with supplemental information DOE/ORP-2014-02-SUPP-1 was approved via letter 19-NWP-090, "Transmittal of Supplemental Information to the *Clean Closure Practicality Demonstration for the Single-Shell Tanks*, DOE/ORP-2014-02-SUPP1, Revision 0," by Ecology on June 12, 2019.
- Submitted design for Barrier 3 in 241-TX Tank Farm to Ecology, which completed TPA milestone M-045-92W.
- Submitted the maintenance and performance monitoring plan for interim barriers to Ecology, on October 10, 2019, completing TPA milestone M-045-92AC.
- Ecology approved the design for Barrier 3 in the 241 TX Tank Farm to allow the start of construction, which completed TPA milestone M-045-92X (October 17, 2019).

### Significant Planned Activities in the Next Six Months

ORP reported the following planned activities:

- Resolve Ecology's comments on RPP-RPT-59389, RPP-RPT-59390, and RPP-RPT-58858.

## Issues/Other Items

ORP noted the WMA-C Baseline Risk Assessment was still stalled, pending decisions by the TPA Inter-agency Management Integration Team.

## **TRI-PARTY AGREEMENT MONTHLY PROJECT MANAGERS MEETING**

ORP reported it was working to resolve 47 additional comments on RPP-RPT-59389 and RPP-RPT-59390. Both reports related to the closure of WMA-C.

ORP reported the continuing dispute over the waste retrieval criteria waiver on tank 241-C-106 – now on appeal before the Washington State Pollution Control Hearings Board (PCHB) – as an issue. The hearing before the PCHB is scheduled for July 28, 2020.

### **12.0 SINGLE-SHELL TANK RETRIEVAL PROGRAM**

#### **Significant Past Accomplishments**

Refer to the Consent Decree portion of these meeting minutes (page 8, section 2.0)

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

Refer to the Consent Decree portion of these meeting minutes (page 8, section 2.0).

#### **Issues**

Refer to the Consent Decree portion of these meeting minutes (page 9).

### **13.0 TANK OPERATIONS CONTRACT OVERVIEW**

The earned value data can be viewed in the November 2019 ORP TPA Monthly Report on pages 28-36.

#### **WBS 5.01 – Base Operations**

The earned value data can be viewed in the November 2019 ORP TPA Monthly Report on page 28.

#### **WBS 5.02 – Retrieve and Close Single-Shell Tanks**

The earned value data can be viewed in the November 2019 ORP TPA Monthly Report on page 30.

#### **WBS 5.03 – Waste Feed Delivery/Treatment Planning**

The earned value data can be viewed in the November 2019 ORP TPA Monthly Report on page 34.

#### **WBS 5.05 – Treat Waste**

The earned value data can be viewed in the November 2019 ORP TPA Monthly Report on page 36.

### **14.0 PRESENTATION – LEAK DETECTION/CHEM-D42 PROCESS**

ORP presented on its leak detection/ChemD-42 process. See attachment to these minutes for the presentation.

# 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 November 2019 ORP Consent Decree Monthly Report).

### Consent Decree Issues and Action Items

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

**Action No. 1 (WTP-19-12-01):** Ecology stated that this action was now being discussed as part of the Analysis of Alternatives and could be closed.

## 2.0 SINGLE-SHELL TANK RETRIEVAL PROGRAM

### Consent Decree Milestones

A status of Consent Decree milestones can be found on pages 3-4 of the November 2019 Consent Decree Monthly Report.

### Significant Accomplishments during the Prior Month

ORP reported it had removed the tank 241-A-103 Pit O3C and tank 241-AX-103 R1B pumps, and that A, B, C and D pits at tank 241-AX-104 were ready for equipment installation.

### Ongoing Activities

ORP reported the following ongoing activities:

- Installation of the electrical infrastructure (power and control systems) in the A Tank Farm.
- Continue removal of long-length equipment at 241-AX-103 and 241-AX-101.
- Installation of A Tank Farm ventilation system
- Continue 241-AX-102 waste retrieval operations (approximately 69 percent retrieved)
- Install waste retrieval equipment in 241-AX-104
- Re-video remaining waste volume in 241-C-106 (completed, as of today's meeting)
- Resolve 241-A-101 stuck shield plug (presumed to be permanently stuck - hole drilling is the next step)

### Significant Planned Activities in the Next Month

ORP reported the following planned activities:

- Complete terminations of electrical power to A Farm exhausters
- Install Tank 241-A-101 air inlet station (delayed due to stuck shield plug)
- Remove Tank 241-AX-103 O3C saltwell screen
- Remove Tank 241-A-101 R2 thermocouple
- Resume Tank AX-102 waste retrieval operations
- Lower the remaining damaged section of Tank A-103 R2 thermocouple into the tank

# CONSENT DECREE MONTHLY PROJECT MANAGERS MEETING

## Issues/Other Items

ORP reported that on September 13, 2019, Tank AX-102 retrieval operations were suspended, due to issues associated with sluicer number 2 in the AX-102 C Pit and sluicer number 3 in the AX-102 D Pit. Operation of sluicer number 3 was suspended because one of the hydraulic pistons, located at the articulating elbow, was slightly bent. Though still dealing with these issues, ORP said it will apply lessons learned to retrieval of tank 241-AX-104. For tank 241-AX-102, ORP reported that it had resumed retrievals but have encountered frequent “fogging” during retrievals, which is hampering work. ORP noted that this impact could be alleviated by the granting of permits from Ecology for construction of exhausters in both 241-A and 241-AX tank farms. Ecology countered that it had offered ORP alternatives, but none were taken.

ORP reported that it plans to add liquid caustic to tank 241-AX-104 to provide additional shielding for retrieval equipment. Ecology expressed that it did not have total confidence in this approach and suggested there be further discussion. ORP agreed to meet to discuss.

ORP noted that there was a “stop-work” issued by an employee regarding the cleanliness of respirator masks, which resulted in all masks being returned to the vendor for cleaning. Additional masks have been ordered to add to existing inventory. The returning of the masks to the vendor did have an impact on fieldwork.

ORP reported it is currently analyzing non-vapors-related retrieval challenges and condition issues associated with tanks A-104 and A-105, which may result in a “serious risk notification” as required by the Consent Decree. Ecology and ORP both agreed, however that this topic could be discussed during upcoming “holistic” talks between the state and DOE.

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

### Significant Accomplishments during the Prior Month

ORP reported it had submitted a tank waste retrieval work plan modification for 241-AX-104 to Ecology for review and approval.

### Significant Planned Activities in the Next Month

ORP reported no new activity.

## **4.0 RETRIEVE AND CLOSE SINGLE-SHELL TANKS**

### WBS 5.02

The earned value data can be viewed in the November 2019 ORP Consent Decree Monthly Report on page 11.

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

### Project Schedule and Cost Variance Performance

## CONSENT DECREE MONTHLY PROJECT MANAGERS MEETING

The earned value data can be viewed in the November 2019 ORP Consent Decree Monthly Report on page 16.

### 6.0 PRETREATMENT FACILITY

ORP reported that the focus at the pretreatment facility was on asset preservation and maintenance, but it is still working to the overall baseline. ORP said it had \$12 million work of work planned for fiscal year.

The earned value data can be viewed in the November 2019 ORP Consent Decree Monthly Report on page 20.

### 7.0 HIGH-LEVEL WASTE FACILITY

ORP reported it currently had more than 200 engineers working on progression of design.

#### Significant Accomplishments during the Prior Month

ORP reported it began the 60% design review of the High-Level Waste (HLW) Facility melter feed process system. ORP added that the review took place in December 2019 and would be noted in next month's ORP Consent Decree Monthly Report.

ORP reported that the radioactive liquid waste disposal system vessel 7 (RLD-7) was on site – an update from the data in the November 2019 ORP Consent Decree Monthly Report. ORP forecasted delivery of RLD-8 in February 2020.

#### Significant Planned Activities in the Next Month

See pg. 22 of the November 2019 ORP Consent Decree Monthly Report for a full listing.

ORP reported a funding level of \$70 million for HLW in FY2020. The earned value data can be viewed in the November 2019 ORP Consent Decree Monthly Report on page 23.

### 8.0 LOW-ACTIVITY WASTE FACILITY

ORP reported that 91% (an updated figure – the November 2019 Consent Decree Report number is 86%) of the Low Activity Waste (LAW) Facility systems have been turned over from construction to startup, and of those, 37% are already turned over from startup to operations. Key among these systems are the melter feed process system and the primary off-gas system. ORP also noted that testing began on the HVAC and other systems.

ORP reported that in December 2019, Safety Instrumented Functions testing was conducted and neared completion. Overall, ORP noted that the facility has made considerable progress on the key transition from construction to the startup phase.

#### Significant Accomplishments during the Prior Month

## CONSENT DECREE MONTHLY PROJECT MANAGERS MEETING

The complete listing can be found on page 25 of the November 2019 ORP Consent Decree Monthly Report.

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

ORP reported it is waiting on the delivery of the active gas analyzer, a key component of the LAW Facility. ORP also reported that it continues to focus on transitions from the Construction-to-Startup and Startup-to-Plant Management organizations.

The earned value data can be viewed in the November 2019 ORP Consent Decree Monthly Report on page 26.

## 9.0 BALANCE OF FACILITIES

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

ORP reported it had hoped to complete the transition from Startup to Plant Management by the end of calendar year 2019, but challenges at the Glass-Former Facility and the steam plant caused a delay. Progress is continuing however, with 83% of systems turned over. ORP also highlighted the key turnover of the chiller compressors, which are now being tested by Plant Management.

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

ORP reported that silica, which emulates glass, has been loaded in the glass former storage facility. This will enable planned testing of glass-forming systems.

ORP reported pipe, roof and electrical commodities installation continues at the Effluent Treatment Facility (EMF).

The earned value data can be viewed in the November 2019 ORP Consent Decree Monthly Report on page 29.

### **Issues/Other Items**

ORP reported that a challenge has arisen regarding the non-radioactive drainage (NLD) system stemming from high iron concentrations in the NLD tank due to rust collecting in pipes from inactivity. This is affecting liquid transfers to the Treated Effluent Disposal Facility and has necessitated off-site shipments. To combat this, Bechtel National, Inc. will bring in temporary skid to treat the liquid and act as a "kidney".

## 10.0 ANALYTICAL LABORATORY

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

ORP reported all startup testing has been completed at the Analytical Laboratory – a major project milestone. A complete listing of accomplishments can be found on page 30 of the November 2019 ORP Consent Decree Monthly Report.

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

## CONSENT DECREE MONTHLY PROJECT MANAGERS MEETING

ORP reported “punch list” items continue to be worked as Plant Management takes over the facility.

The earned value data can be viewed in the November 2019 ORP Consent Decree Monthly Report on page 32.

### 11.0 OTHER DISCUSSION

ORP reported a “peer project review” team, made up of more than 40 DOE Headquarters personnel recently assessed several aspects of the ORP tank waste treatment progress. In its preliminary findings, the team reported that ORP has made “significant improvements”, but remains challenged with “under-performance” and “optimistic schedules”. ORP also noted that it has already begun working on improvements, particularly in schedule recovery and risk management.



# THE HANFORD SITE

## Office of River Protection Tri-Party Agreement

Monthly Reporting Period  
November 1 – 30, 2019

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

- Discuss disputes with regard to milestone M-062-45 and its associated milestones during holistic negotiations.
- Ecology and ORP will continue discussions in support of System Plan, Rev. 9 development, due October 31, 2020.

## **Significant Past Accomplishments**

- Submitted additional technical and design information for the TSCR Resource Conservation and Recovery Act permit application to Ecology via letter 19-ECD-0079, “Submittal of Additional Technical and Design Information for the Dangerous Waste Part B Permit Application for the Low-Activity Waste Pretreatment System (TS-2-8),” dated October 31, 2019.

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

- System fabrication is projected to be completed in 2019.
- System factory acceptance testing is projected to begin in the first quarter of calendar year 2020.

## Issues

- Since April 2018, ORP and Ecology have been engaged in discussions about regulatory framework related to TSCR emissions. Ecology has expressed concern about issuing a permit for a system that sends air emissions or ventilation to a double-shell tank or single-shell tank. Based on recent discussions, and to address Ecology's concerns, ORP is developing and evaluating potential options for sampling and monitoring the TSCR emissions vented to the AP Tank Farm.
- On December 3, 2018, Ecology sent ORP and DOE-Richland Operations Office letter 18-NWP-177, "Hanford Site Ambient Air Boundary Concerns," regarding the Hanford Site ambient air boundary. Ecology expressed its belief that the ambient air boundary appears to have changed as a result of increased public access to parts of the Hanford Site. ORP, Ecology, and the Washington State Department of Health have met several times to attempt to develop a shared understanding of existing conditions and a path forward.

## Significant Past Accomplishments

- Awarded fabrication contracts for PB-1 & PB-2 spare pumps
- Completed design for replacement of instrument air dryer
- Received new instrument air dryer
- Completed 60 percent design for transfer line replacement

## Significant Planned Actions in the Next Six Months

- Remove feed line jumper from pump room to support EC-11
- Procure new PB-1 and PB-2 replacement pumps
- Install air dryer upgrade, remove tanks E1-1/E104, replace tank E102
- Complete 100 percent design for line replacement
- Replace the sock filter assembly on the filtered raw water system
- Initiate safe systems upgrades engineering design

## Significant Past Accomplishments

- Total FY20 processing volume: approximately 1 million gallons
- Continued cleanout activities at the completion of LERF Basin 42 processing
- Began fieldwork for the upgrade of the rough filter system. Completed replacement of rough filter hoist
- Began fieldwork for the upgrade of the uninterruptible power supply and completed removal of existing uninterruptible power supply unit
- Began fieldwork for the upgrade of reverse osmosis system and completed removal of existing reverse osmosis membranes
- Completed the 30-percent design review for LERF Basin 41 project

# Liquid Effluent Retention and 200 Area Effluent Treatment Facilities

---

## Significant Planned Actions

- Complete cleanout activities for LERF Basin 42 processing
- Complete commissioning of the new peroxide decomposer system
- Perform brine load-out system upgrade
- Perform physical tie-in of transfer lines 200-E-310-PL and 200-E-311-PL at the interface points
- Perform stairs and ladder replacements
- Perform chiller upgrade
- Perform dilute caustic tank upgrade with a tank of compatible material to the system piping
- Perform reverse osmosis pumps and valving upgrade
- Perform verification tank 2 repair
- Perform load-in drain and filter system upgrade

## Significant Planned Actions (continued)

- Perform evaporator valve upgrade
- Perform cooling tower and pump upgrade
- Perform uninterruptible power supply upgrade
- Perform rough filter and hoist refurbishment
- Design ultraviolet/oxidation system upgrade
- Design monitoring and control system / hardware upgrade
- Design LERF Basin 41 installation for additional capacity
- Design redundant filtration upgrade
- Design load-in station expansion
- Design vessel offgas demister housing upgrade
- Design supplemental organic treatment system

# 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 (WRPS). Evaluations are due to visual indication of solid material in the basin and sample results from that material.

# Liquid Effluent Retention and 200 Area Effluent Treatment Facilities

## 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	+19,200	-	-
Other (325 RPS, SWL)	+2,700	+1,800	-
Processing Campaign(s)	-	-	-
<b>Total Volume</b>	<b>2,642,000</b>	<b>6,431,000</b>	<b>610,000</b>

Data Date: November 30, 2019

Values shown in gallons

RPS = retention process sewer

SWL = solid waste landfill leachate

## Significant Past Accomplishments

- Received an annulus floor cleaner for tank AY-101
- Installed a retractable corrosion monitoring probe in tank AY-101
- Completed ultrasonic testing inspections for: 241-AP-107, 241-AP-108, 241-AN-102, 241-AP-106, and 241-AP-102<sup>1</sup>
- Completed enhanced annulus visual inspections for: 241-AN-101, 241-AN-102, 241-AN-103, 241-AN-104, 241-AN-105, 241-AN-106, 241-AN-107, 241-AZ-101, and 241-AZ-102

## Significant Planned Actions in the Next Six Months

- Complete design of a primary tank bottom volumetric inspection system to be deployed in the annulus of double-shell tanks (DSTs) to characterize regions of the primary tank bottom. The contract to fabricate, test, and deliver this system will be awarded in FY 2020.

<sup>1</sup> Completed inspection for 241-AP-102 consisted of annulus floor ultrasonic testing only; air slot inspection

## Significant Planned Actions continued

- Fabricate two retractable corrosion monitoring probes for installation in the following tanks: 241-AW-104 and 241-AP-102
- Award a competitive procurement contract to design and fabricate a tertiary leak detection inspection tool for deployment beneath the secondary liner of a DST
- Complete ultrasonic testing of the following tanks: 241-AW-102, 241-AW-101, and 241-AW-106
- Complete enhanced annulus visual inspections for: 241-SY-101, 241-SY-103, 241-AW-105, and 241-AW-106.

## Significant Past Accomplishments

- Completed visual inspections for: 241-AX-102, 241-B-102, 241-B-103, 241-B-110, 241-B-111, 241-B-112, 241-BX-104, 241-C-106, 241-SX-114, 241-SX-115, 241-T-103, 241-T-108, 241-T-202, 241-U-101, 241-U-106, 241-U-109, and 241-TY-106
- Transmitted RPP-RPT-55202, *Dome Survey Report for Hanford Single-Shell Tanks*, Rev. 3, to Ecology in September satisfying TPA milestone M-045-91E3 via letter 19-TPD-0018, “Completion of Hanford Federal Facility Agreement and Consent Order Interim Milestone M-045-91E3 Deliverable,” dated September 5, 2019.
- Performed TFC-ENG-CHEM-D-42, *Tank Leak Assessment Process*, on the following tanks: 241-T-101 and 241-T-103

## Significant Planned Actions in the Next Six Months

- Perform TFC-ENG-CHEM-D-42 on: 241-SX-104, 241-T-109, and 241-T-113
- Perform visual inspection on: 241-B-107, 241-BX-105, 241-BX-108, 241-BX-109, 241-BX-112, 241-BY-107, 241-S-103, 242-S-110, 241-SX-112, 241-TX-101, 241-TX-102, 241-TX-104, 241-TX-107, 241-TX-110, 241-TY-101, and 241-TY-104

## Reports Completed or Released

- Completed eight reports and released one. For details, please refer to the monthly report

## Significant Past Accomplishments

- Conducted core sampling on 241-AN-107 – six samples received
- Conducted grab sampling on 241-AP-104 – two samples received

## Significant Planned Actions in the Next Six Months

- December 2019: 241-AN-101, 241-AP-105, 241-AP-106
- February 2020: 241-AP-102
- April 2020: 241-AP-108 (if required)

## Significant Past Accomplishments

- Completed updates for 241-AX-102 and 241-AZ-102

## Significant Planned Actions in the Next Month

- Complete updates for 241-AP-102, 241-AP-106, 241-AZ-101, 241-SY-101, 241-U-101, and 241-U-109

## Significant Past Accomplishments

- 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 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 single-shell tank (SST) closure plans in the Hanford sitewide permit
- Approved DOE/ORP-2014-02, *Clean Closure Practicality Demonstration for the SSTs*, with supplemental information DOE/ORP-201-4-02-SUPP-1 via letter 19-NWP-090, “Transmittal of Supplemental Information to the Clean Closure Practicability Demonstration for the SSTs, DOE/ORP-2014-02-SUPP1, Revision 0,” by Ecology on June 12, 2019.
- Submitted design for Barrier 3 in 241-TX to Ecology. This action completes milestone M-045-92W as noted by administrative record (AR-03145) signed October 17, 2019.

## Significant Past Accomplishments continued

- Submitted the maintenance and performance monitoring plan for interim barriers to Ecology. This action completes milestone M-045-92AC.
- Ecology approved the design for Barrier 3 in 241-TX Tank Farm to allow the start of construction. This action completes milestone M-045-92X as noted by Administrative Record documentation (AR-03146) signed October 17, 2019.

## Significant Planned Activities in the Next Six Months

- Resolve Ecology's comments on RPP-RPT-59389, RPP-RPT-59390, and RPP-RPT-58858.

## Issues

- Interagency Management Integration Team decisions for the four issues on RPP-RPT-58329, Baseline Risk Assessment for Waste Management Area C, have been stalled since the February 21, 2019, meeting.
- The U.S. Department of Energy received 47 additional comments on RPP-RPT-59389 and RPP-RPT-59390 via an email from Ecology on August 30, 2019. ORP is developing a path forward to resolve these additional comments.

## Issues continued

- ORP formally initiated the TPA dispute resolution process with Ecology over Ecology's "Denial of Request for Waiver for TPA Waste Retrieval Criteria for SST 241-C-106" (C-106). This dispute was extended at the TPA Interagency Management Integration Team level until June 12, 2019. A Director's Determination by the Director of Ecology was made on June 26, 2019 (19-NWP-101, "Director's Determination on United States Department of Energy Request for a Waiver of Single-Shell Tank Retrieval Criteria"). ORP appealed the Director of Ecology's determination to the Pollution Control Hearings Board on July 26, 2019. The parties participated in mediation on October 28, 2019. The parties were unable to successfully negotiate and resolve the appeal on October 28, but have agreed to one additional negotiation meeting in November. The important dates and litigation deadlines are set forth in the Pollution Control Hearings Board's Second Amended Pre-hearing Order. The hearing in this appeal is scheduled for July 28, 2020.



# THE HANFORD SITE

## Office of River Protection Consent Decree Monthly Report

Monthly Reporting Period  
November 1 – 30, 2019

## Significant Accomplishments during the Prior Month

- Removed the top portions (~ 21 feet) of Tank A-101 R2 thermocouple
- Completed lowering the remaining damaged section of Tank A-103 R2 thermocouple to the tank bottom
- Completed installation of the electrical power to the A Tank Farm exhausters (POR518/519)
- Resumed Tank AX-102 waste retrieval operations (70% complete).

## Ongoing Activities

- Removal of long-length equipment at Tank AX-101
- Installation of A Tank Farm ventilation system
- Tank AX-102 waste retrieval operations
- Installation of waste retrieval equipment in Tank AX-104
- Resolution of Tank A-101 pit stuck shield plug, install air inlet station

## Significant Planned Activities in the Next Month

- Power up the A Tank Farm exhausters and initiate construction acceptance testing
- Remove Tank A-103 03C saltwell screen
- Lower the remaining section of Tank A-101 R2 thermocouple to the tank bottom.

## Issues

- A temporary shortage of respirator masks impacted retrieval fieldwork. Due to an employee concern regarding the cleanliness of masks, masks were returned to the vendor for additional cleaning, resulting in a temporary shortage. Additional masks have been ordered to increase the onsite inventory. The masks contained some fine lint and a slight film on the inside of the lens.

## Issues (continued)

- Installation of waste retrieval equipment in Tank AX-104 is being managed to minimize the risk of early equipment failure in a high radiation environment.
- Reduced worker efficiencies associated with mandatory use of supplied air continues to impact work in the tank farms. The use of full-face air purifying respirators has been approved for use in the AX Tank Farm during operation of exhausters (POR126/POR127). Mandatory use of supplied air respirators is required when the AX Tank Farm exhausters are not operating or during retrieval operations.
- The U.S. Department of Energy (DOE) is engaged in ongoing analysis of non-vapors-related retrieval challenges and condition issues associated with Tanks A-104 and A-105 (i.e., two of the nine tanks currently specified for retrieval under the B-2 Milestone).<sup>3</sup> These issues are under analysis and could require issuance of a

## Issues (continued)

- The U.S. Department of Energy (DOE) is engaged in ongoing analysis of non-vapors-related retrieval challenges and condition issues associated with Tanks A-104 and A-105 (i.e., two of the nine tanks currently specified for retrieval under the B-2 Milestone).<sup>3</sup> These issues are under analysis and could require issuance of a “serious risk” notice or another request for amendment of the Consent Decree (including the B-2 Milestone).

## Issues (continued)

- The as-found condition of existing abandoned equipment in AX and A Tank Farms has affected DOE's ability to remove the equipment efficiently and is affecting the cost and schedule.
  - Removal of Tank A-103 R2 thermocouple required a duration of 209 days to complete. The lower section of the thermocouple was damaged and could not be removed. Unique tooling was required to lower the remaining section to the tank bottom.
  - Removal of Tank A-101 R2 thermocouple required the top sections to be removed in two sections and the remaining third section to be lowered to the tank bottom.
  - Removal of Tank A-106 R2 thermocouple will require removal in sections, with the lower section left in the tank.
  - A stuck shield plug in Tank A-101 01C Pit will require an alternative method (core drilling) to tie in the ventilation system.
  - A stuck shield plug in Tank AX-102 02B Pit prevented the installation of the planned third extended reach sluicer.

## Issues (continued)

- On December 3, 2018, the Washington State Department of Ecology (Ecology) sent the DOE Office of River Protection (ORP) and Richland Operations Office a letter (18-NWP-177) regarding the Hanford Site ambient air boundary. Ecology expressed its concern that the ambient air boundary appears to have changed because of increased public access to parts of the Hanford Site. DOE, Ecology, and the Washington State Department of Health have met several times to attempt to develop a shared understanding of existing conditions and a path forward.

## Issues (continued)

- On January 28, 2019, ORP received a Washington River Protection Solutions LLC letter (WRPS-1900243), outlining potential impacts to tank retrievals at A and AX Tank Farms, due to a lack of Ecology regulatory approval associated with exhausters in the 241-A and 241-AX Tank Farms. On March 4, 2019, DOE transmitted WRPS-1900243 to ensure Ecology was aware of potential impacts to A and AX Tank Farm retrievals and possibly associated Consent Decree milestones, if Ecology does not approve a pending notice of construction application in the near future. DOE is continuing to evaluate the information in the letter, as well as whether amendment of the Consent Decree (including potential invocation of “force majeure” provisions) or other actions may be necessary. Retrieval of Tank AX-102 began on August 31, 2019, with the exhausters running at 1,000 standard cubic feet per minute. DOE is assessing retrieval performance at this airflow rate due to the potential for fogging at various stages of the retrieval process that may affect schedule.

## Issues (continued)

On April 18, 2019, Ecology provided a notice of incompleteness determination for the A and AX Tank Farms (19-NWP-063). ORP provided a response on May 14, 2019 (19-ECD-0038), which justified that the original application met the regulations and asked Ecology to continue processing the application. ORP submitted a revised application on October 31, 2019 (19-ECD-0080), to provide supplemental information to address Ecology's comments.

The CCMS Modeler has finished analysis of the C-106 in-tank videos and developed the following draft values:

- CCMS Volume Estimate = 285.98 ft<sup>3</sup>
- 95% Upper Bound Volume Estimate = 334.92 ft<sup>3</sup> (statistical regression & uncertainty applied per RPP-37110)

This preliminary evaluation followed the process found in procedure TFC-ENG-FACSUP-C-40, "Supplemental Residual Waste Volume Estimates" and will now undergo review and checking.





# THE HANFORD SITE

## Tank Leak Assessment Process

Chem-D-42

- Defined in Engineering Procedure TFC-ENG-CHEM-D-42
- Entering the process:
  - Unexplained change in liquid levels
    - Liquid surface:  $\pm 1.0$ " ENRAF change
    - Interstitial Liquid Level (ILL):  $\pm 3$  standard deviations from baseline, or  $\pm 1.2$ " change, whichever is greater
    - Evaluation of level data will either explain the exceedance, or recommend a formal leak assessment
  - Management request
  - Recommendation from RPP-32681, *Process to Estimate Tank Farm Vadose Zone Inventories*
    - *2013 document to support retrieval and closure planning*

# Leak Assessment Team Makeup and Responsibilities

---

- Engineering, production operations, and environmental staff/managers
- In-tank and Ex-tank data
  - Surface level, ILL
  - Waste inventory
  - Waste temperature
  - Nearby drywell radiation levels
  - Visual inspections
- Operating history
  - Thermal cycling
  - Operating levels
  - Occurrence and event reports
  - Previous integrity assessments
- Performs technical analysis to accept or reject candidate leak and non-leak hypotheses
- Prepares leak assessment report and recommends an integrity status
  - If a change in tank integrity status is recommended, present leak assessment results to Executive Safety Review Board (ESRB)

## Leak and Non-Leak Hypotheses and Leak Probability

---

- Hypotheses – Simplest explanations of leaking and non-leaking behavior
  - Example Leak Hypothesis: *The liquid level decrease was the result of a tank leak*
  - Example Non-Leak Hypothesis: *The radioactivity in drywell was caused by an overfill resulting in leaks through the spare inlet lines, or migrated from another source*
- Leak probability – Probability that the in-tank and ex-tank data would have been observed if the tank was leaking
- Allows decision making using available data
  - Uncertainty in data typically reflected by increased Leak Probability

# Probability Estimates for Leak and No-Leak Hypothesis

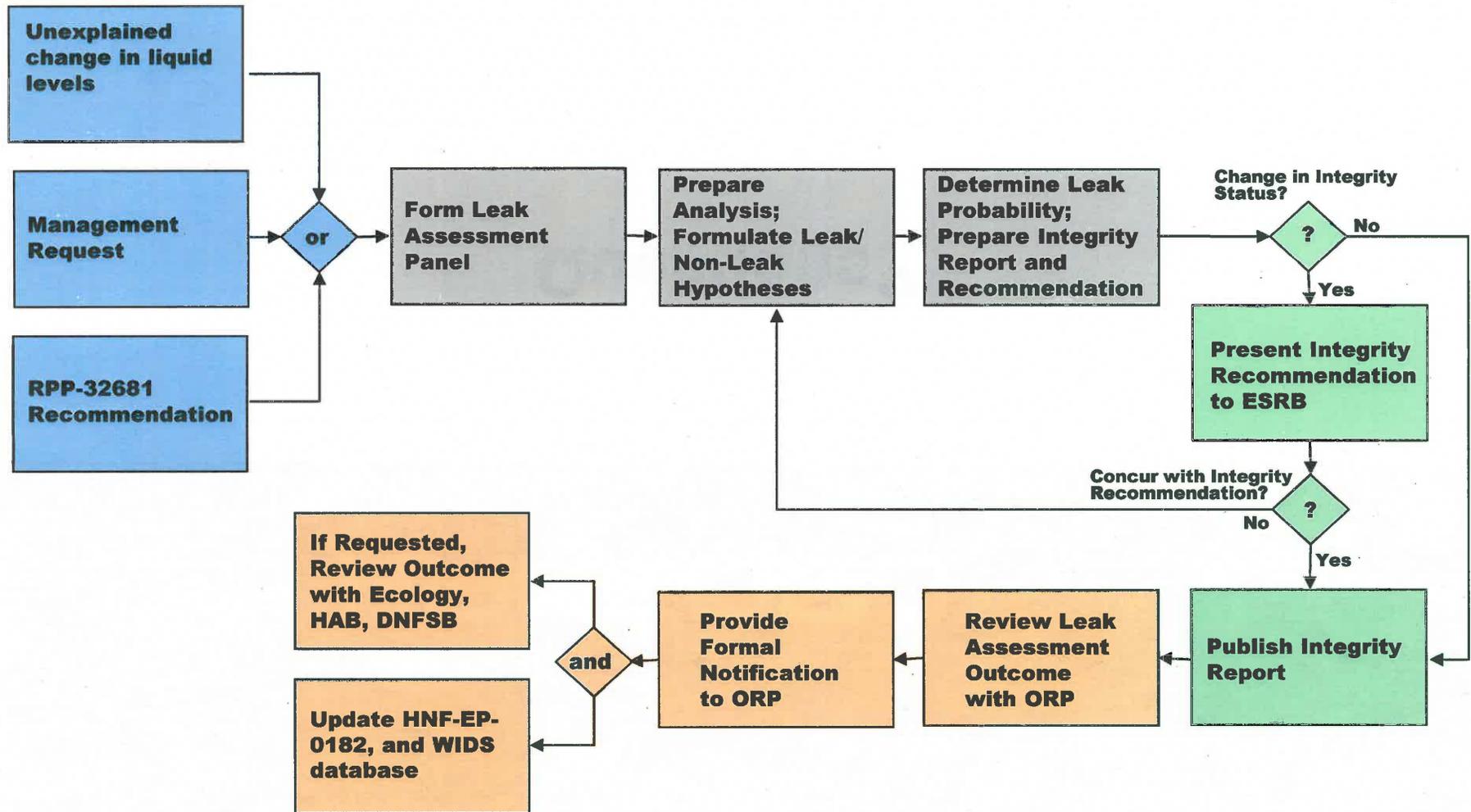
---

An overall tank leak probability (0.01-0.99) is estimated based on engineering judgment of the following

- Overall probability  $>0.5$  indicates the tank is more likely to be an “assumed leaker” than “sound”
- 1. “Prior” probability of tank liner leak without considering in-tank and ex-tank data
- 2. Probability leak/no-leak hypothesis is supported by in-tank data
  - a. Surface level measurements
  - b. Interstitial liquid level measurements
  - c. Combined
- 3. Probability leak/no-leak hypothesis is supported by ex-tank data
  - a. Total Gamma logging data (drywells and direct pushes)
  - b. Spectral gamma logging data (drywells)
  - c. Combined

- Prepare Leak Assessment Report and integrity status recommendation
  - ESRB review and concurrence required for integrity status change
- With ESRB concurrence:
  - Publish Leak Assessment Report
  - Brief ORP and formally transmit report
  - Update HNF-EP-0182, *Waste Tank Summary Report*
  - Update Waste Information Data System (WIDS)
  - Brief Ecology, HAB, and DNFSB if requested

# Tank Leak Assessment Process





# THE HANFORD SITE

**Questions?**

---

## ORP/Ecology TPA and CD Agreements, Issues, and Action Items –January 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<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

---

<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 –January 2020 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.”

---

<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 –January 2020 Meeting

#	Action ID Start Date	Action	Updates / Needs for Closure	Actionee(s)	Status/ Date Closed
1	TF-16-11-04 17 Nov 2016	ORP to provide Ecology the T-112 work plan	In legal review. (07/19/2018) No change (12/12/2019)	Dusty Stewart	On Hold
2	TF-18-10-01 18 Oct 2018	Follow up meetings for discussion and resolution of tank-side cesium removal (TSCR) related activities.	<p>Schedule a meeting to further discuss concerns related to crystalline silicotitanate (CST) compatibility with HLW glass, long term storage, ion exchange column design, potential for resolution concepts ( in the early stage). ORP will schedule first meeting within the next couple of weeks. Additionally Ecology would like an invite to witness the tall column test.</p> <p>4-4-19: ORP expects the meeting to occur prior to the end of April. Dan will provide list of Ecology names and available dates. The meeting should be scheduled for a couple of hours. Ecology would like clarification regarding the resin extracted from the column, which is purposed to be put in the high level waste stream. Currently there is no study to validated compatibility/treatment via HLW. Clarify disposition of the physical hardware.</p> <p>30 May 2019: Meeting held on May 20<sup>th</sup>. ORP recommends closing this action.</p> <p>6 June ORP Actions</p> <ol style="list-style-type: none"> <li>1. Provide Ecology with a copy of the Factory Acceptance Test (FAT) test plan once released. (TARGET Completion: October 2019)</li> <li>2. Provide the opportunity for Ecology to observe the FAT once the FAT has commenced. (TARGET Completion: November 2019)</li> </ol> <p>Updated 09/20/2019)</p>	Sahid Smith	Open

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

#	Action ID Start Date	Action	Updates / Needs for Closure	Actionee(s)	Status/ Date Closed
			12/12/2019: Ecology has not received updated plan, ORP to provide by email		
3	TF-18-10-02 18 Oct 2018	Ecology and DOE to meet to discuss Ecology email (see Updates)	<p>The HFFACO is the current working agreement and Ecology is confident that the HFFACO has adequately described our expectations for WMA-C Closure. USDOE and Ecology will meet and discuss the areas where USDOE have not fulfilled the TPA requirements for SST Closure or are inconsistent with Tri-Party agreements and understanding. USDOE and Ecology will agree to a resolution to those deficiencies where USDOE have not fulfilled the TPA Requirements. If USDOE has concerns regarding the HFFACO, then our respective senior managers should provide direction to the TPA Project Managers for resolving those concerns. (Email Jeff Lyon, Oct 22, 2018) Meeting between ORP and Ecology occurred on 11 Dec 2018 to discuss these issues. ORP is preparing a response for Ecology. No Change 09/20/2019)</p> <p>12/12/2019 – ORP to provide Ecology an update by phone/email prior to next meeting</p>	Rod Lobos	Open
4	TF-19-04-03 4 Apr 2019	Demonstrate compliance with Appendix I for SST closure. (Jim Alzheimer)	<p>Clarify how integration between RL and ORP is being coordinated for consistent action and compliance related to closure for CERCLA/RCRA and rad on similar type tanks. Clarify if this is captured in Tier 1, Tier 2 or Tier 3 closure plans. How are the separate closure documents providing compliance with Appendix I How is EPA involved? No Change 09/20/2019)</p> <p>12/12/2019 – ORP to provide Ecology an update by phone/email prior to next meeting</p>	Rod Lobos	Open

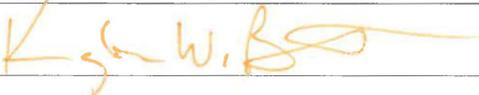
**ORP/Ecology TPA and CD Agreements, Issues, and Action Items –January 2020 Meeting**

#	Action ID Start Date	Action	Updates / Needs for Closure	Actionee(s)	Status/ Date Closed
5	TF-19-12-01 12 Dec 19	At the next PMM provide a briefing to Ecology on planned safety system changes, and emergency response improvements at 242-A Evaporator		Paul Hernandez	Open

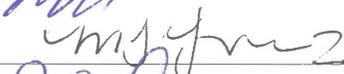
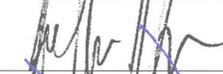
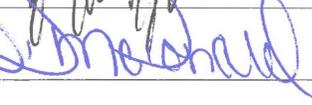
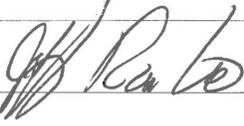
**ORP/Ecology TPA and CD Agreements, Issues, and Action Items –January 2020 Meeting**

#	Action ID Start Date	Action	Updates / Needs for Closure	Actionee(s)	Status/ Date Closed
1	WTP-19-12-01	ORP to provide Ecology with details on the PT/HLW equipment “post-contract actions”.		Wahed Abdul	Open

January 9, 2020  
Office of River Protection  
Tri Party Agreement Consent Decree Meeting

PRINT NAME	SIGN NAME	ORG
Abdul, Wahed		ORP
Alzheimer, Jim		ECY
Bang, Ricky		OEP
Barnes, Mike		ECY
Becky, Blackwell		ORP
Beehler, Steve		ORP
Brasher, Stephanie		MSA
Burnett, Kaylin		ORP
Cameron, Craig		EPA
Carlson, Annette		ECY
Cimon, Shelley		OR State
Decker, Jay		ECY
Diediker, Janet		ORP
Evans, Rana		ORP
Fletcher, Tom		ORP
Gao, Tracy		ECY
Hall, Katie		ECY
Harkins, Brian		ORP
Hastings, Rob		ORP
Hernandez, Paul		ORP
Irwin, Mat		ORP
Johnson, Jeremy		ORP
Jones, Mandy		ECY

January 9, 2020  
Office of River Protection  
Tri Party Agreement Consent Decree Meeting

PRINT NAME	SIGN NAME	ORG
Lobos, Rod		ORP
Lopez, Maria		WRPS
Lowe, Steven		ECY
Lucatero, Yoana		ECY
Lyon, Jeffery		ECY
McDonald, Dan		ECY
Menard, Nina		ECY
Mulkey, Charles		WRPS
Parker, Dan		WRPS
Pomiak, Andrew		ECY
Price, John		ECY
Rambo, Jeffrey		ORP
Serafin, Shane		ORP
Skorska, Maria		ECY
Stewart, Dustin		ORP
Temple, John		ECY
Trimberger, Bryan		ORP
Turner, Michael		MSA
Valle, Richard		ORP
Van Mason, Eric		WRPS
Walmsley, Mign		ECY
Wang, Oliver S		ECY
Whitelely, Craig		ORP/GSSC

