

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

November 7, 2019

2440 Stevens Center
Richland, Washington

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CONCURRENCE SIGNATURES

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



Brian Harkins, DOE-ORP

Date: 1/27/20



Mat Irwin, DOE-ORP

Date: 1/29/20



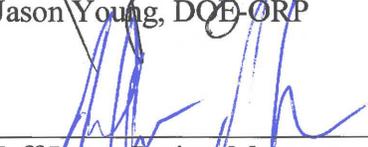
Wahed Abdul, DOE-ORP

Date: 2/4/20



Jason Young, DOE-ORP

Date: 1/30/20



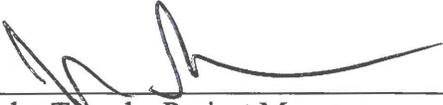
Jeff Lyon, Project Manager
Washington State Department of Ecology

Date: 2/26/20



Dan McDonald, Project Manager
Washington State Department of Ecology

Date: 2-27-2020



John Temple, Project Manager
Washington State Department of Ecology

Date: 2/12/20

TRI-PARTY AGREEMENT MONTHLY REPORT

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 REPORT

1.0 ADMINISTRATIVE ITEMS/MILESTONE STATUS/ACTIONS

Upcoming Meetings

The U.S. Department of Energy-Office of River Protection (ORP) stated they would like to make a change to this meeting, in the form of the meeting date. The Tri-Party Agreement (TPA) and Consent Decree (CD) reports are due to the Washington State Department of Ecology (Ecology) before the last day of each month and the current meetings are then held the first Thursday of each month, which does not provide enough report review time prior to the meeting. ORP proposed to change the monthly meeting to the second Thursday of each month.

The next ORP TPA Project Managers' meeting is scheduled for December 12, 2019, 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 September 1 - September 30, 2019, were entered into the Administrative Record on October 29, 2019.

Tri-Party Agreement Milestone Status

ORP stated all 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 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 – November 2019 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) would start in early December and conclude by the end of the month. Action remains Open.

Action No. 3 (TF-18-10-02): ORP reported it does not see any further action on this item and believes it can be closed. Ecology disagreed, stating that ORP could close this action and Ecology would follow-up with a letter to ORP noting the things that Ecology believes are still an issue.

ORP offered to meet with Ecology and work through why ORP thinks it is closed and what Ecology believes may be remaining issues. Action remains open (Ecology Project Manager not present at the meeting to confirm closure).

Action No. 4 (TF-19-04-03): ORP stated this action could also be closed. Ecology responded that they are expecting an email from ORP answering the question and after Ecology receives the email then they would be willing to close this action. Action remains Open.

TRI-PARTY AGREEMENT MONTHLY REPORT

2.0 SYSTEM PLAN

ORP reported the System Plan 9 report had been submitted to Ecology in September 2019. Ecology indicated Ecology had concurred with the selected scenarios, signed the letter, and submitted it back to ORP.

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 the tank-side cesium removal (TSCR) system, tank farm upgrades, and TSCR spent ion exchange pad final designs were completed in September 2019.

ORP also reported the TSCR technology testing for batch contact was completed in September 2019.

Significant Planned Actions in the Next Six Months

ORP reported the TSCR system fabrication is projected for completion in 2019 and the FAT is projected to begin in 2019.

Issues/Other Items

ORP had no issues to report.

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.

Significant Planned Actions in the Next Six Months

ORP reported it will procure new PB-1 and PB-2 replacement pumps. ORP 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 safe systems upgrades engineering design.

TRI-PARTY AGREEMENT MONTHLY REPORT

Issues/Other Items

ORP had no issues to report.

8.0 LIQUID EFFLUENT RETENTION FACILITY AND 200 AREA EFFLUENT TREATMENT FACILITY

Significant Past Accomplishments

ORP reported the total fiscal year 2019 processing volume at approximately 3.44 million gallons.

ORP completed repair of the interior protective epoxy coating of the Effluent Treatment Facility (ETF) Verification Tank B for FY 2019. Each of the three verification tanks will be repaired over the next 3 years (one per fiscal year).

ORP also completed upgrades of the leachate pumps and level detection systems at each Liquid Effluent Retention Facility (LERF) basin and fieldwork installation of the ETF peroxide decomposer vessel media and columns upgrade.

ORP received the ETF chiller unit and cooling tower, which will be installed in FY 2020.

Significant Planned Actions in the Next Six Months

ORP noted the status of the following activities:

- Continue commissioning of the new ETF peroxide decomposer vessel and media system through December 2019.
- Continue waste processing of LERF Basin 42 effluent through the ETF.
- Initiate ETF cleanout activities at the completion of LERF Basin 42 processing.
- Complete the refurbishment of the ETF. Work has paused on the LERF Basin 44 cover replacement project while nuclear safety evaluations are performed by Washington River Protection Solutions LLC. Evaluations are due to visual indication of solid material in the basin and sample results from that material.

Issues/Other Items

ORP had no issues to report.

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 AY-101
- Received and installed a retractable corrosion monitoring probe in Tank AY-101
- Completed Ultrasonic testing inspections for the following tanks in FY 2019:
 - 241-AP-107, 241-AP-108, 241-AN-102, 241-AP-106, 241-AP-102 (annulus floor ultrasonic testing only; air slot inspection)

TRI-PARTY AGREEMENT MONTHLY REPORT

- Completed enhanced annulus visual inspection in FY 2019:
 - 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.

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.

ORP reported that it had released and transmitted RPP-RPT-55202, *Dome Survey Report for Hanford Single-Shell Tanks*, Rev. 3, to Ecology in September, satisfying TPA milestone M-045-91E3.

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-T-101 (complete) and 241-T-103 (reported as complete at the time of this meeting, but still noted as ongoing in the September monthly report).

Issues/Other Items

ORP had no issues to report.

9.3 Independent Qualified Registered Professional Engineer Activities

Double-Shell Tank System

ORP noted no changes from last month's reporting - the inspection report was completed in 2016.

Single-Shell Tank System

ORP noted no changes from last month's reporting - the inspection report was completed in 2018.

242-A Evaporator

ORP noted no changes from last month's reporting - the inspection report was completed in 2018.

TRI-PARTY AGREEMENT MONTHLY REPORT

ETF

ORP reported the Independent Qualified Registered Professional Engineer (IQRPE) finalized and transmitted RPP-IQRPE-50043, *Effluent Treatment Facility IQRPE Integrity Assessment*, to WRPS on September 12, 2019.

219-S Tank System

ORP completed the visual inspections at Tank TK-101, Tank TK-102, and Tank TK-104 waste receiver vessels in September 2019. The internal and external visual inspections of the 219-S tank system and their secondary containment were completed September 25, 2019. Visual inspections of the hot tunnels were completed the week of September 30, 2019. This activity completed the facility inspections necessary for the integrity assessment.

Issues/Other Items

ORP had no issues to report.

10.0 IN-TANK CHARACTERIZATION AND SUMMARY

10.1 Reports Completed or Released

See page 20 of the September 2019 TPA monthly report for the full list.

10.2 Tank Sampling

Significant Past Accomplishments

There was no tank sampling completed in September 2019.

Significant Planned Actions in the Next Six Months

See page 21 of the September 2019 TPA monthly report for the list of future tank sampling planned.

10.3 Best-Basis Inventory Updates

Significant Past Accomplishments

See page 21 of the September 2019 TPA monthly report for the accomplishments.

Significant Planned Actions in the Next Six Months

See page 21 of the September 2019 TPA monthly report for the best-basis inventories planned.

Issues/Other Items

ORP had no issues to report.

TRI-PARTY AGREEMENT MONTHLY REPORT

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.

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.
- Submit design for Barrier 3 in 241-TX Tank Farm to Ecology.
- Submit the maintenance and performance monitoring plan for interim barriers to Ecology.

Issues/Other Items

ORP had no issues to report.

12.0 SINGLE-SHELL TANK RETRIEVAL PROGRAM

Significant Past Accomplishments

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

Significant Planned Activities in the Next Six Months

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

Issues

Refer to the Consent Decree (page 9, section 2.0 below of these meeting minutes).

13.0 TANK OPERATIONS CONTRACT OVERVIEW

The earned value data can be viewed in the September 2019 ORP TPA Monthly Report on pages 27-35.

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WBS 5.01 – Base Operations

The earned value data can be viewed in the September 2019 ORP TPA Monthly Report on page 29.

WBS 5.02 – Retrieve and Close Single-Shell Tanks

The earned value data can be viewed in the September 2019 ORP TPA Monthly Report on page 31.

WBS 5.03 – Waste Feed Delivery/Treatment Planning

The earned value data can be viewed in the September 2019 ORP TPA Monthly Report on page 33.

WBS 5.05 – Treat Waste

The earned value data can be viewed in the September 2019 ORP TPA Monthly Report on page 35.

CONSENT DECREE MONTHLY REPORT

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 September 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-19-19-01): ORP reported it had the meeting and believed the action could be closed. Ecology agreed to close the action. Action Closed.

2.0 SINGLE-SHELL TANK RETRIEVAL PROGRAM

Consent Decree Milestones

ORP reported Consent Decree milestone D-16B-03 is on schedule, D-16B-02 is under analysis, and D-16-B-01 is complete.

Significant Accomplishments during the Prior Month

ORP reported the following completed activities:

- Completed waste retrieval design for A Tank Farm (tanks 101, 102, 103, and 106)
- Completed A Tank Farm exhauster ducting installation (no connections to the tank risers)
- Completed Tank A-103 Pic C cleanout
- Completed Tank A-101 Pic C cleanout
- Removed AX-103 Pit B Riser 14 sluicer.

Ongoing Activities

ORP reported the following ongoing activities:

- Install the electrical infrastructure (power and control systems) in the A Tank Farm
- Continue removal of long-length equipment at Tank AX-103 and Tank AX-101
- Install A Tank Farm ventilation system:
 - Install power and control systems for the exhauster
 - Remove cover blocks, clean pits, and thermocouple trees from risers (to connect the ventilation system)
 - Continue installation of air inlet stations
- Continue Tank AX-102 waste retrieval operations (approximately 67 percent retrieved)
- Install waste retrieval equipment in Tank AX-104
- Re-video remaining waste volume in Tank C-106.

Significant Planned Activities in the Next Month

ORP reported the following planned activities:

- Install Tank A-101 air inlet station
- Remove Tank AX-103 R1B pump
- Remove Tank A-101 R2 thermocouple
- Remove A-101 1C Pit stuck shield plug

CONSENT DECREE MONTHLY REPORT

- Resume Tank AX-102 waste retrieval operations
- Lower the remaining damaged section of Tank A-103 R2 thermocouple into the tank.

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.

The other issues can be viewed in the September 2019 ORP Consent Decree Monthly Report on pages 7-8.

3.0 TANK WASTE RETRIEVAL WORK PLAN STATUS

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 September 2019 ORP Consent Decree Monthly Report on page 10.

5.0 WASTE TREATMENT AND IMMOBILIZATION PLANT PROJECT

ORP noted there was not much activity to report on.

The earned value data can be viewed in the September 2019 ORP Consent Decree Monthly Report on page 15.

6.0 PRETREATMENT FACILITY

ORP noted it had completed the resolution of all technical issues (T1-T8) for the Pretreatment Facility (PT). There was not much new information to report because they are doing preservation maintenance on the facility.

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

7.0 HIGH-LEVEL WASTE FACILITY

ORP continued to manage suspended plant equipment purchase orders to reduce storage and suspension costs and evaluate ways to reduce project procurement liability.

ORP also reported completing the preservation maintenance walk downs.

CONSENT DECREE MONTHLY REPORT

The earned value data can be viewed in the September 2019 ORP Consent Decree Monthly Report on page 23.

8.0 LOW-ACTIVITY WASTE FACILITY

ORP reported the following activities:

- Initiated factory-acceptance testing of the gas analyzer
- Turned over the uninterruptible power system from construction to the startup organization
- Handover of the process service water system from the startup organization to the plant management.

ORP also discussed the commissioning sequence options with Ecology.

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

9.0 BALANCE OF FACILITIES

ORP noted there are two main activities within the Effluent Management Facility (EMF). A construction completion effort is ongoing and the startup and testing element is ongoing within the more traditional Balance of Facilities (BOF). ORP reported completing the following activities:

- Preassembly of the EMF stack to support final placement
- Setting of process vessels DEP-VSL-00004A/B and DEP-VSL-00005A/B at EMF
- System turnovers for the EMF powerhouse.

ORP added their efforts are really focused on the steam plant, chiller compressor, and the cooling tower.

The earned value data can be viewed in the September 2019 ORP TPA Monthly Report on page 29.

10.0 ANALYTICAL LABORATORY

ORP reported the focus at the Analytical Laboratory was on startup and turnover to Plant Management/Operations.

ORP noted completion of testing and balancing for the C2, C3, and C5 cascading ventilation system design.

ORP completed startup testing and handover of the following laboratory systems to plant management:

- Closed circuit television

CONSENT DECREE MONTHLY REPORT

- Domestic water
- C1 ventilation system
- Chilled water
- Bottled nitrogen gas.

ORP reported they had received the occupancy permit for the laboratory, have started moving people in, and have been placing analytical equipment for employees to become familiar with the equipment.

Ecology asked how ORP was doing on procedures and methods. ORP stated methods development was going well and they have not seen any indication of issues with the development process or schedule.

The earned value data can be viewed in the September 2019 ORP TPA Monthly Report on page 32.



THE HANFORD SITE

Office of River Protection Tri-Party Agreement

Monthly Reporting Period
September 1–September 30, 2019

Significant past accomplishments:

The selected scenarios for the *River Protection System Plan*, Rev. 9 were agreed upon by U.S. Department of Energy, Office of River Protection (ORP) and Washington State Department of Ecology (Ecology). ORP documented the agreement and transmitted letter 19-MIO-0020, “Request for Concurrence on Selected Scenarios for the River Protection Project System Plan, Revision 9,” dated September 25, 2019, to Ecology for concurrence

Tank-Side Cesium Removal System

Significant past accomplishments:

- Waste feed delivery final design was released in August 2019
- Tank-side cesium removal (TSCR) system, tank farm upgrades, and TSCR spent ion exchange pad final designs were completed in September 2019
- TSCR technology testing for batch contact was completed in September 2019

Tank-Side Cesium Removal System (Cont.)

Significant planned actions in the next six months:

- TSCR system fabrication is projected to be completed in 2019
- TSCR system factory acceptance testing is projected to begin in 2019

Issues:

- Not applicable

Significant past accomplishments:

- Completed annual electrical preventive maintenance activities
- Awarded fabrication contract for PB-1 spare pump
- Awarded fabrication contract for PB-2 spare pump
- Completed design for replacement of 242-A Evaporator instrument air dryer
- Received new instrument air dryer
- Completed 60 percent design for 242-A Evaporator transfer line replacement

Significant planned actions in the next six months:

- Procure new PB-1 and PB-2 replacement pumps
- Install 242-A Evaporator instrument air dryer upgrade
- Complete 100 percent design for 242-A Evaporator transfer line replacement
- Replace the sock filter assembly on the filtered raw water system
- Initiate 242-A Evaporator safe systems upgrades engineering design

Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility

Significant past accomplishments:

- Total fiscal year (FY) 2019 processing volume: approximately 3.44 million gallons
- Completed repair of the interior protective epoxy coating of the Effluent Treatment Facility (ETF) Verification Tank B for FY 2019. Each of the three verification tanks will be repaired over the next 3 years (one per fiscal year)
- Completed upgrade of the leachate pumps and level detection systems at each Liquid Effluent Retention Facility (LERF) basin

Significant past accomplishments (cont.):

- Completed fieldwork installation of the ETF peroxide decomposer vessel media and columns upgrade
- Received the ETF chiller unit and cooling tower, which will be installed in FY 2020

Significant planned actions in the next six months:

- Commissioning of the new ETF peroxide decomposer vessel and media system will continue through December 2019
- Continue waste processing of LERF Basin 42 effluent through the ETF

Significant planned actions in the next six months (cont.):

- Initiate ETF cleanout activities at the completion of LERF Basin 42 processing
- Complete the replacement of select facility stairs and ladders to improve personnel safety and ergonomics
- Complete the refurbishment of the ETF. Work has paused on the LERF Basin 44 cover replacement project while nuclear safety evaluations are performed by Washington River Protection Solutions LLC. Evaluations are due to visual indication of solid material in the basin and sample results from that material

LERF Volumes

Description	242AL-42 (Basin 42)	242AL-43 (Basin 43)	242AL-44 (Basin 44)
AZ-301 Condensate	+7,100	-	-
Mixed Waste Trench 31 and 34	+34,000	-	-
Other (325 RPS)	-	+1,200	-
Processing Campaign(s)	-222,000	-	-
Total Volume	3,740,000	6,440,000	670,000

Data Date: September 30, 2019

Values shown in gallons

RPS denotes retention process sewer

Tank System Update – Double-Shell Tank Integrity

Significant past accomplishments:

- Received an annulus floor cleaner to clean the annulus floor of Tank AY-101
- Received and installed a retractable corrosion monitoring probe in Tank AY-101

Tank System Update – Double-Shell Tank Integrity (Cont.)

Significant past accomplishments (cont.):

- Ultrasonic testing inspections were completed for the following tanks in FY 2019:
 - 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 inspection in FY 2019:
 - 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

Tank System Update – Double-Shell Tank Integrity (Cont.)

Significant planned actions in the next six months:

- 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

Tank System Update – Single-Shell Tank Integrity

Significant past accomplishments:

- Visual inspections were completed for the following 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, 241-TY-106

Tank System Update – Single-Shell Tank Integrity (Cont.)

Significant past accomplishments (cont.):

- RPP-RPT-55202, *Dome Survey Report for Hanford Single-Shell Tanks*, Rev. 3, was transmitted 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

Tank System Update – Single-Shell Tank Integrity (Cont.)

Significant planned actions in the next six months:

- Perform TFC-ENG-CHEM-D-42, *Tank Leak Assessment Process*, on the following tanks in FY 2019:
 - 241-T-101 (completed)
 - 241-T-103 (ongoing)

In-Tank Characterization and Summary

Reports Completed or Released – see monthly report

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 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

Single-Shell Tank Closure Program (Cont.)

Significant past accomplishments:

- DOE/ORP-2014-02, *Clean Closure Practicality Demonstration for the Single-Shell Tanks*, with supplemental information
DOE/ORP-201-4-02-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

Single-Shell Tank Closure Program (Cont.)

Significant planned activities in the next six months:

- Resolve Ecology's comments on RPP-RPT-59389, RPP-RPT-59390, and RPP-RPT-58858
- Submit design for Barrier 3 in 241-TX Tank Farm to Ecology
- Submit the maintenance and performance monitoring plan for interim barriers to Ecology



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Office of River Protection Consent Decree Monthly Report

Monthly Reporting Period
September 1–September 30, 2019

Single-Shell Tank Retrieval Program

Significant accomplishments during the prior month:

Completed accomplishments:

- Completed waste retrieval design for A Tank Farm (tanks 101, 102, 103, and 106)
- Completed A Tank Farm exhaust ducting installation (no connections to the tank risers)
- Completed Tank A-103 Pic C cleanout
- Completed Tank A-101 Pic C cleanout
- Removed AX-103 Pit B Riser 14 sluicer

Single-Shell Tank Retrieval Program (cont.)

Significant accomplishments during the prior month (cont.):

Ongoing activities:

- Installation of the electrical infrastructure (power and control systems) in the A Tank Farm
- Continue removal of long-length equipment at Tank AX-103 and Tank AX-101
- Installation of A Tank Farm ventilation system:
 - Install power and control systems for the exhauster
 - Remove cover blocks, clean pits, and thermocouple trees from risers (to connect the ventilation system)
 - Continue installation of air inlet stations

Single-Shell Tank Retrieval Program (cont.)

Significant accomplishments during the prior month (cont.):

- Continue Tank AX-102 waste retrieval operations (approximately 67 percent retrieved)
- Install waste retrieval equipment in Tank AX-104
- Re-video remaining waste volume in Tank C-106

Single-Shell Tank Retrieval Program (cont.)

Significant planned activities in the next month:

- Install Tank A-101 air inlet station
- Remove Tank AX-103 R1B pump
- Remove Tank A-101 R2 thermocouple
- Remove A-101 1C Pit stuck shield plug
- Resume Tank AX-102 waste retrieval operations
- Lower the remaining damaged section of Tank A-103 R2 thermocouple into the tank

Single-Shell Tank Retrieval Program (cont.)

Issues:

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.

ORP/Ecology TPA and CD Agreements, Issues, and Action Items –November 2019 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 first Thursday of the month starting in January 2019. The TPA and CD monthly reports distribution will occur by the end of December via link to the Admin Record. This will be the format for report distribution and monthly meetings going forward for calendar year 2019.

Issues:

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

¹ Washington State Department of Ecology

² Environmental Protection Agency

³ Resource Conservation & Recovery Act

⁴ RCRA Facility Investigation

⁵ Corrective Measure Study

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

- d. Section 5.6: “The EPA and Ecology have selected a lead regulatory agency approach to minimize duplication of effort and maximize productivity. Either the EPA or Ecology will be the lead regulatory agency for each operable unit, TSD⁸ group/unit or milestone. The lead regulatory agency for a specific operable unit, TSD group/unit or milestone will be responsible for overseeing the activities covered by this action plan that relate to the successful completion of that milestone or activities at that operable unit or TSD group/unit, ensuring that all applicable requirements are met.”

⁶ 1984 Hazardous and Solid Waste Amendments

⁷ Applicable or Relevant and Appropriate Requirements

⁸ Treatment, Storage, and/or Disposal

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#	Action ID Start Date	Action	Updates / Needs for Closure	Actionee(s)	Status/ Date Closed
1	TF-16-11-04 11-17-16	ORP to provide Ecology the T-112 work plan	In legal review. (07/19/2018) No change (09/20/2019)	Dusty Stewart	On Hold
2	TF-18-10-01 10/18/18	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 a 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 20th. ORP recommends closing this action.</p> <p>6 June ORP Actions</p> <ol style="list-style-type: none"> 1. Provide Ecology with a copy of the Factory Acceptance Test (FAT) test plan once released. (TARGET Completion: October 2019) 2. Provide the opportunity for Ecology to observe the FAT once the FAT has commenced. (TARGET Completion: November 2019) <p>Updated 09/20/2019</p>	Sahid Smith	Open

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#	Action ID Start Date	Action	Updates / Needs for Closure	Actionee(s)	Status/ Date Closed
3	TF-18-10-02 10/18/18	Ecology and DOE to meet to discuss Ecology email (see Updates)	The HFFACO is the current working agreement and Ecology is confident that the HFFACO has adequately described our expectations for WMA-C Closure. USDOE and Ecology will meet and discuss the areas where USDOE have not fulfilled the TPA requirements for SST Closure or are inconsistent with Tri-Party agreements and understanding. USDOE and Ecology will agree to a resolution to those deficiencies where USDOE have not fulfilled the TPA Requirements. If USDOE has concerns regarding the HFFACO, then our respective senior 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	Rod Lobos	Open
4	TF-19-04-03	Demonstrate compliance with Appendix I for SST closure. (Jim Alzheimer)	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	Rod Lobos	Open

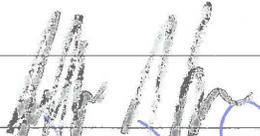
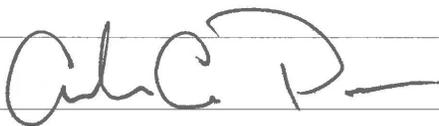
ORP/Ecology TPA and CD Agreements, Issues, and Action Items –November 2019 Meeting

#	Action ID Start Date	Action	Updates / Needs for Closure	Actionee(s)	Status/ Date Closed
1	WTP-19-09-01	Briefing to Ecology	DOE will make a presentation related to the Design and Operability (D&O) Report	Wahed Abdul	Open
2					

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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

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PRINT NAME	SIGN NAME	ORG
Kemp, Christopher		ORP
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
Pfaff, Stephen H		ORP
Pomiak, Andrew		ECY
Price, John		ECY
Rambo, Jeffrey		ORP
Serafin, Shane		ORP
Skorska, Maria		ECY
Smith, Sahid		ORP
Stewart, Dustin		ORP
Temple, John		ECY
Trimberger, Bryan		ORP
Turner, Michael		MSA
Turner, Vanessa		ORP
Valle, Richard		ORP

