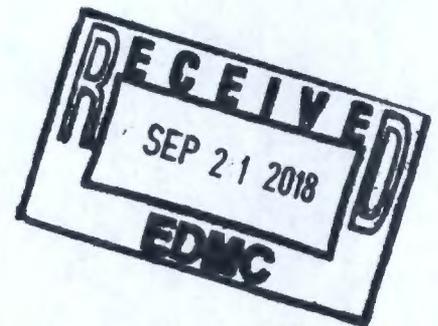


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FINAL
Office of River Protection
Tri-Party Agreement
Report
September¹ 2018



¹ The narrative descriptions of progress in this report cover the period from August 1–31, 2018. Information outside the reporting period may also be included for purposes of providing continuity or useful context. Information may be repeated in multiple sections of this report for continuity and clarity. Earned Value Management System data and descriptions cover the period of July 1-31, 2018.

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Acronyms and Abbreviations

| | |
|---------|--|
| CV | cost variance |
| Ecology | Washington State Department of Ecology |
| EPA | U.S. Environmental Protection Agency |
| FY | fiscal year |
| IQRPE | independent qualified registered professional engineer |
| LAWPS | Low-Activity Waste Pretreatment System |
| LERF | Liquid Effluent Retention Facility |
| ORP | U.S. Department of Energy, Office of River Protection |
| SST | single-shell tank |
| SV | schedule variance |
| TPA | Tri-Party Agreement |
| TSCR | tank-side cesium removal |
| WMA | waste management area |
| WRPS | Washington River Protection Solutions LLC |
| WTP | Waste Treatment and Immobilization Plant |

Administrative Items/Milestone Status

| Milestone | Title | Due Date | TPA PM | Status |
|-------------------------|---|------------------|---------------|---------------|
| Prior Years | | | | |
| M-062-45-T01 | Complete Negotiations 6-Months After Last Issuance of System Plan | 04/30/2015 | S.H. Pfaff | In Abeyance |
| M-062-45-ZZ | Negotiate a One-Time Supplemental Treatment Selection | 04/30/2015 | S.H. Pfaff | In Abeyance |
| M-062-45-ZZ-A | Convert M-062-31-T01 through M-062-34-T01 to Interim Milestones | 04/30/2015 | S.H. Pfaff | In Abeyance |
| M-047-07 | CD-1 for Secondary Liquid Waste Treatment and CR for CD-2 to Ecology | 03/31/2016 | J.A. Diediker | In Abeyance |
| M-090-13 | CD-1 for Interim Hanford Storage Project and CR for CD-2 to Ecology | 03/31/2016 | J.A. Diediker | In Abeyance |
| M-062-31-T01 | Complete Final Design & Submit RCRA Part B Permit Mod Request for Enhanced WTP & Supplemental Treatment | 04/30/2016 | S.H. Pfaff | In Abeyance |
| M-045-62 | Submit the Draft Tier 3 Closure Plan with Corrective Measures in Phase 2 CMIP for WMA-C | TBD ¹ | J.B. Bovier | On Schedule |
| M-045-83 | Complete the Closure of WMA-C by Completing Closure Activities Specified in the Tier 2 Closure Plan | TBD ¹ | J.B. Bovier | On Schedule |
| Fiscal Year 2018 | | | | |
| M-062-40F | Submit System Plan to Ecology | 10/31/2017 | K.W. Burnett | Completed |
| M-062-32-T01 | Start Construction of Supplemental Vitrification Facility and/or WTP Enhancements | 04/30/2018 | S.H. Pfaff | In Abeyance |

| Milestone | Title | Due Date | TPA PM | Status |
|-------------------------|--|------------|--------------|-------------|
| M-045-56N | Ecology and DOE Agree, at a Minimum, to Meet Yearly (by July) | 07/31/2018 | J.B. Bovier | Completed |
| M-045-91I | Provide IQRPE Certification of SSTs Structural Integrity | 09/30/2018 | D.M. Stewart | On Schedule |
| Fiscal Year 2019 | | | | |
| M-045-56O | Ecology and DOE Agree, at a Minimum, to Meet Yearly (by July) | 07/31/2019 | J.B. Bovier | On Schedule |
| M-045-91E3 | Provide SST Farms Dome Deflection Surveys Every 2 Years to Ecology | 09/30/2019 | D.M. Stewart | On Schedule |

¹ To be established in accordance with the date identified in the M-045-82 Tier 2 closure plan.

CD-1/-2 = critical decision-1/-2.

PM = project manager.

CMIP = corrective measures implementation work plan.

RCRA = *Resource Conservation and Recovery Act.*

CR = change request.

SST = single-shell tank.

DOE = U.S. Department of Energy.

TBD = to be determined.

Ecology = Washington State Department of Ecology.

TPA = Tri-Party Agreement.

IQRPE = independent qualified registered professional engineer.

WTP = Waste Treatment and Immobilization Plant.

Mod = modification.

WMA-C = C Tank Farm waste management area.

System Plan

One System Division Director: Joni Grindstaff

Federal Program Manager: Kaylin Burnett

Ecology Project Manager: Dan McDonald, Jeff Lyon

Significant Past Accomplishments

- The U.S. Department of Energy, Office of River Protection (ORP); U.S. Environmental Protection Agency (EPA); and Washington State Department of Ecology (Ecology) have been in negotiations related to M-062-45 Milestone since September 2016. The parties have agreed on multiple occasions that it was prudent to extend the completion of the negotiations. On August 15, 2018, the date for concluding negotiations was extended to November 15, 2018. To date the parties have exchanged proposals and started dialogue.

Significant Planned Actions in the Next Six Months

- Continue negotiations of the M-062-45 Milestone and related milestones with intent to utilize information from the ORP-11242, *River Protection Project System Plan*, Rev. 8.

Issues

- None.

Acquisition of New Facilities

Tank Farms Assistant Manager: Glyn Trenchard
Deputy Federal Project Director: Janet Diediker
Ecology Project Manager: Dan McDonald, Jeff Lyon

M-047-07 CD-1 for Secondary Liquid Waste Treatment and CR for CD-2 to Ecology (ECY)

Due: March 31, 2016.

Status: In Abeyance. Decision document 2016-005, *Hanford Federal Facility Agreement and Consent Order Interagency Management Integration Team (IAMIT) Decision / Determination / Action Agreement*, signed August 22, 2016, requires this milestone be addressed with the negotiations supporting M-062-45 Milestone. Negotiations began on September 8, 2016.

M-090-13 CD-1 for Interim Hanford Storage Project and CR for CD-2 to ECY

Due: March 31, 2016.

Status: In Abeyance. Decision document 2016-005 signed August 22, 2016, requires this milestone be addressed with the negotiations supporting M-062-45 Milestone. Negotiations began on September 8, 2016.

M-090-00 Acquire/Modify Facilities for Storage of First Two Years of Immobilized High-Level Waste (IHLW) from the Waste Treatment and Immobilization Plant (WTP) Operations

Due: December 31, 2036.

Status: In Abeyance. Decision document 2016-005 signed August 22, 2016, requires this milestone be addressed with the negotiations supporting M-062-45 Milestone. Negotiations began on September 8, 2016.

M-047-00 Completion of Work for Management of Secondary Waste from the WTP

Due: To Be Determined.

Status: In Abeyance. Decision document 2016-005 signed August 22, 2016, requires this milestone be addressed with the negotiations supporting M-062-45 Milestone. Negotiations began on September 8, 2016.

Significant Past Accomplishments

- In May, ORP, EPA, and Ecology agreed to an extension of negotiations related to M-062-45 Milestone. In a document signed on May 29, 2018, the parties agreed that it was prudent to extend the completion of the negotiations in order to allow the parties to further develop proposals. On August 15, 2018, the date for concluding negotiations was extended to November 15, 2018. To date the parties have exchanged proposals and started dialogue.

Significant Planned Actions in the Next Six Months

- Continue negotiations of the M-062-45 Milestone and related milestones. The new date for concluding negotiations is November 15, 2018.

Issues

- None.

Supplemental Treatment and Part B Permit Applications

Tank Farms Assistant Manager: Glyn Trenchard
Federal Project Director: Steve Pfaff
Ecology Project Manager: Dan McDonald

M-062-45-T01 Complete Negotiations 6-Months after Last Issuance of System Plan

Due: April 30, 2015.

Status: In Abeyance. Decision document 2016-005 signed August 22, 2016, requires this milestone be addressed with the negotiations supporting M-062-45 Milestone. Negotiations began on September 8, 2016.

M-062-45-ZZ Negotiate a One-Time Supplemental Treatment Selection

Due: April 30, 2015.

Status: In Abeyance. Decision document 2016-005 signed August 22, 2016, requires this milestone be addressed with the negotiations supporting M-062-45 Milestone. Negotiations began on September 8, 2016.

M-062-45-ZZ-A Convert M-062-31-T01 through M-062-34-T01 to Interim Milestones

Due: April 30, 2015.

Status: In Abeyance. Decision document 2016-005 signed August 22, 2016, requires this milestone be addressed with the negotiations supporting M-062-45 Milestone. Negotiations began on September 8, 2016.

M-062-31-T01 Complete Final Design and Submit Resource Conservation and Recovery Act (RCRA) Part B Permit Modification Request for Enhanced WTP & Supplemental Treatment

Due: April 30, 2016.

Status: In Abeyance. Decision document 2016-005 signed August 22, 2016, requires this milestone be addressed with the negotiations supporting M-062-45 Milestone. Negotiations began on September 8, 2016.

M-062-32-T01 Start Construction of Supplemental Vitrification Facility and/or WTP Enhancements

Due: April 30, 2018.

Status: In Abeyance. Decision document 2016-005 signed August 22, 2016, requires this milestone be addressed with the negotiations supporting M-062-45 Milestone. Negotiations began on September 8, 2016.

- M-062-33-T01 Complete Construction of Supplemental Treatment Vitrification Facility and/or WTP Enhancements**
Due: April 30, 2021.
Status: In Abeyance. Decision document 2016-005 signed August 22, 2016, requires this milestone be addressed with the negotiations supporting M-062-45 Milestone. Negotiations began on September 8, 2016.
- M-062-45-XX Complete Negotiations to Resolve Future Disputes M-062-45, Paragraphs 4 and 5**
Due: December 31, 2021.
Status: On Schedule.
- M-062-34-T01 Complete Hot Commissioning of Supplemental Treatment Vitrification Facility and/or WTP Enhancements**
Due: December 30, 2022.
Status: In Abeyance. Decision document 2016-005 signed August 22, 2016, requires this milestone be addressed with the negotiations supporting M-062-45 Milestone. Negotiations began on September 8, 2016.
- M-062-21 Annually Submit Data Which Demonstrates Operation of the WTP at a Rate Sufficient to Meet M-062-00**
Due: February 28, 2023.
Status: At risk.
- M-062-00 Complete Pretreatment Processing and Vitrification of High-Level Waste (HLW) and Low-Activity Waste (LAW) Tank Wastes**
Due: December 31, 2047.
Status: At risk.

Significant Past Accomplishments

- In May, ORP, EPA, and Ecology agreed to an extension of negotiations related to M-062-45 Milestone. In a document signed on May 29, 2018, the parties agreed that it was prudent to extend the completion of the negotiations in order to allow the parties to further develop proposals. On August 15, 2018, the date for concluding negotiations was extended to November 15, 2018. To date the parties have exchanged proposals and started dialogue.

Significant Planned Actions in the Next Six Months

- Continue negotiations of the M-062-45 Milestone and related milestones. The new date for concluding negotiations is November 15, 2018.

Issues

- None.

Direct-Feed Low-Activity Waste Projects

| | |
|---|-------------------------|
| <i>Tank Farms Assistant Manager:</i> | Glyn Trenchard |
| <i>LAWPS Federal Manager:</i> | Steve Pfaff |
| <i>TSCR Federal Manager:</i> | Sahid Smith |
| <i>Ecology Project Manager:</i> | Dan McDonald, Jeff Lyon |

This section only covers the Tank Farms Project scope of the direct-feed low-activity waste mission. Please refer to the Consent Decree monthly report for the Waste Treatment and Immobilization Plant (WTP) Project scope pertaining to direct-feed low-activity waste.

Low-Activity Waste Pretreatment System:

Significant Past Accomplishments

- ORP directed Washington River Protection Solutions LLC (WRPS) to ramp down design and testing activities for the Low-Activity Waste Pretreatment System (LAWPS) permanent cesium removal capability.
- ORP obtained Critical Decision 3A, "Long Lead Procurement," approval for the tank-side cesium removal (TSCR) from U.S. Department of Energy, Headquarters. This was the first step in transitioning the LAWPS Project from design and construction of a permanent cesium removal capability to a two-phased approach using TSCR for initial feed to WTP (Phase One) and reconsideration of the future cesium removal at a later date (Phase Two).

Significant Planned Actions in the Next Six Months

- WRPS will complete design development of the LAWPS permanent cesium removal capability with an informal 45 percent design review currently scheduled for the end of fiscal year (FY) 2018. The 45 percent design, along with applicable test reports will be maintained under configuration control pending future evaluation of the LAWPS cesium removal capability.
- WRPS to continue design development on all supporting systems to the TSCR system to supply liquid tank waste to TSCR, to store pretreated low-activity waste feed, and to transfer pretreated low-activity waste feed to WTP.

Issues

- None.

Tank-Side Cesium Removal:

Significant Past Accomplishments

- WRPS awarded a subcontract to AVANTech, Inc. on July 3, 2018.
- WRPS began 30 percent design review of TSCR with onsite review and breakout sessions on August 29.

Significant Planned Actions in the Next Six Months

- WRPS to continue the 30 percent design review of TSCR through September 12. The 60 percent design reviews will be conducted in FY 2019.

Issues

- None.

242-A Evaporator Status

Tank Farms Assistant Manager: Glyn Trenchard
Federal Program Manager: Paul Hernandez
Ecology Project Manager: Jeff Lyon

The 242-A Evaporator campaign strategy for FY 2018 is in the following table:

| Fiscal Year | Campaign No. | Feed Source | Slurry Tank | Comments |
|-------------|--------------|---------------------------|-------------|--|
| 2018 | EC-08 | Blend of AP-106 AP-107 | AP-103 | Campaign EC-08 was completed on May 4, 2018 with a waste volume reduction of 166,000 gallons. |
| 2018 | EC-09 | Blend of AP-106 AP-108 | AP-104 | Campaign EC-09 was completed on June 25, 2018 with a waste volume reduction of 20,000 gallons. |

Significant Past Accomplishments

- Completed fire alarm control panel replacement
- Relocated spare PB-1 pump from the loadout room to make room for test bed initiative activities.

Significant Planned Actions in the Next Six Months

- Establish the future campaign and outage scheduling
- Procure parts to rebuild spare PB-1 pump
- Procure new PB-1 replacement pump
- Support, as necessary, test bed initiative field activities involving the 242-A Evaporator
- Perform electrical outage preventative maintenance activities.

Issues

- PB-1 recirculation pump failed. Corrective actions in progress to procure a new PB-1 pump and to rebuild spare PB-1 pump for future evaporator campaigns.

Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility

Tank Farms Assistant Manager: Glyn Trenchard
Federal Program Manager: Richard Valle
Ecology Project Manager: Stephanie Schleif

The Liquid Effluent Retention Facility (LERF) liquid levels, inventory, and received waste are shown in the table below. Volumes in the table are estimated. Tanker shipment volumes are estimated by multiplying the number of shipments by the capacity of the tanker being used.

| | 242AL-42 (Basin 42) | 242AL-43 (Basin 43) | 242AL-44 (Basin 44) |
|---|------------------------|------------------------|------------------------|
| Total Volume (as of Aug. 30, 2018) | ~ 0 Mgal ¹ | ~ 5.88 Mgal | ~ 7.37 Mgal |

| Waste Received | | | |
|------------------------|---|--------------|---|
| AZ-301 Condensate | - | 6,500 gal | - |
| MWT-31 and 34 Leachate | - | ~ 28,000 gal | - |
| Other (327 RPS) | - | ~ 2,600 gal | - |

¹ Basin 42 was placed out-of-service on June 1, 2018.

gal = gallon.

Mgal = million gallons

MWT = mixed waste trench.

RPS = retention process sewer

Significant Past Accomplishments

- Total FY 2018 volume processed (as of August 30, 2018): approximately 2,675,000 gallons.
- Completed installation of new LERF Basin 42 cover. Some work still remains (e.g., the reinstallation of the tensioning system) before the project will be complete.

Significant Planned Actions in the Next Six Months

- Continue processing LERF Basin 43 waste at Effluent Treatment Facility
- Enter plant cleanout/outage for corrective maintenance
- Perform camera visual inspections in support of the Effluent Treatment Facility integrity assessment project
- Complete the LERF Basin 42 cover replacement project

- Complete design and commence installation of the new Effluent Treatment Facility air compressors and air dryer.

Issues

- None.

Tank System Update

Tank Farms Assistant Manager: Glyn Trenchard
Federal Program Manager: Dustin Stewart
Ecology Project Manager: Jeff Lyon, Cheryl Whalen

Reports are identified as completed (internal access only) or released (external access).

Field Activities

Significant Past Accomplishments

- Waste disturbing activities:
 - None
- Major field activities:
 - Completed two encasement checks
 - Completed Tank AZ-102 and Tank AW-103 pump and jumper replacements
 - Completed pit heater installation in 10 pits
 - Completed wireless instrumentation in AP Tank Farm and AN Tank Farm (9 pits)
 - Completed safety-significant airflow instrumentation installation in AW Tank Farm and AY/AZ Tank Farm.

Significant Planned Actions in the Next Six Months

- Waste disturbing activities:
 - None
- Major field activities:
 - Conduct encasement pressure check SL-167
 - Repair AP-02A jumper
 - Remove AP-02D pump
 - Install in-pit heater at AP02A and AY01A
 - Install cross-site transfer line permanent power to 6241V
 - Conduct operational acceptance testing of AW Tank Farm and AY/AZ Tank Farm safety-significant airflow installations
 - Conduct startup and turnover of tank farm wireless installations in AN Tank Farm and AP Tank Farm
 - Conduct Testing and readiness safety-significant airflow instrumentation.

Issues

- None.

Double-Shell Tank Integrity:**Significant Past Accomplishments**

- Several members of the Tank and Pipeline Integrity team traveled to DNV-GL to meet with Tank Integrity Expert Panel (TIEP) Corrosion Subgroup on August 22 and 23 in Columbus, Ohio. Topics discussed included:
 - DST corrosion control new specification development
 - Tank AZ-102 ultrasonic testing update
 - Tank AP-106 repurposing
 - FY 2019 corrosion testing plans
 - Updates from 222-S Laboratory, DNV-GL, and Savannah River National Laboratory.
- New primary tank bottom visual inspection tools were deployed in Tank AP-107 on August 27 and 29. These systems deployed camera and lighting hardware through the air slot pattern in the refractory pad on which the primary tank rests, successfully traveling to the bottom center of the double-shell tank. These new systems afford the ability to conduct periodic visual assessment of the condition of the primary tank bottom from beneath the double-shell tanks.

Significant Planned Actions in the Next Six Months

- Enhanced annulus visual inspections are planned for the following tanks in FY 2018:

| | | | |
|--------------|-------------|---------------|-------------|
| – 241-AP-102 | (completed) | – 241-AP-108 | (completed) |
| – 241-AP-103 | | – 241-AW-101 | (ongoing) |
| – 241-AP-104 | (completed) | – 241-AW-102 | |
| – 241-AP-105 | (completed) | – 241-AW-104. | |
| – 241-AP-106 | (completed) | | |
- Ultrasonic testing inspections are planned for the following tanks in FY 2018:

| | | | |
|--------------|-------------|--------------|--------------|
| – 241-AY-101 | (completed) | – 241-AZ-102 | (completed). |
| – 241-AZ-101 | (completed) | | |
- In response to receipt of Ecology letter 18-NWP-015, “Transmittal of Fourth Mutual Letter of Agreement for 241-AY-102 for Signatures,” dated January 29, 2018, the settlement agreement driven video inspections of the Tank AY-102 annulus have been discontinued. Periodic monitoring of the waste accumulation in the annulus will continue on a schedule to be determined by WRPS Engineering.
- Continue annual comprehensive inspection of Tank AY-101 annulus. In January 2018, an enhanced annulus visual inspection was done. The next comprehensive inspection of Tank AY-101 is scheduled for 2019.

- Secondary liner integrity:
 - Perform laboratory testing of secondary liners for corrosion from moisture in the soil and for use of corrosion inhibitors. Both are methods that could be used to protect the secondary liner.
 - Completed modeling potential water ingress routes into the annulus systems.
 - Perform a visual inspection of the Tank 241-AP-102 annulus floor; scheduled for FY 2018.
 - Perform another ultrasonic test scan of the area in question and additional areas in all four quadrants of the Tank 241-AP-102 annulus; scheduled for FY 2019.²
 - Investigate and develop nondestructive examination methods, in particular long-range, guided wave ultrasonic testing to support more comprehensive examination capability for double-shell tank bottoms. Field testing could begin as early as FY 2019.²

Independent Qualified Registered Professional Engineer Activities:

- Released RPP-RPT-60479, *Ultrasonic Inspection Results for Effluent Treatment Facility – 2017*, Rev. 0, to the independent qualified registered professional engineer (IQRPE)
- WRPS awarded the contract for the 219-S integrity assessment project to Meier Architecture Engineering.
- Complete M-045-91I report RPP-IQRPE-50028, *Single-Shell Tank System Structural Integrity Assessment Report*.
- Work will continue on document RPP-PLAN-61349, *Effluent Treatment Facility Integrity Program Plan*. The document will support the FY 2019 IQRPE Effluent Treatment Facility integrity assessment.
- Continue planning for conducting visual, ultrasonic, and leak tests in the 219-S facility. Document RPP-PLAN-61634, *219-S Integrity Assessment Plan*, will serve as a guide for conducting these inspections.

Issues

- None.

² May not occur in the next 6 months, included for information only.

Single-Shell Tank Integrity

Tank Farms Assistant Manager: Glyn Trenchard
Federal Program Manager: Dustin Stewart
Ecology Project Manager: Jeff Lyon

Reports are identified as completed (internal access only) or released (external access).

M-045-91I Provide Independent, Qualified, Registered Professional Engineer (IQRPE) Certification of Single-Shell Tanks (SSTs) Structural Integrity

Due: September 30, 2018.

Status: On Schedule.

Significant Past Accomplishments

- WRPS awarded the contract for the single-shell tank (SST) IQRPE integrity assessment report as described in M-045-91I (assessment of structural integrity) to Meier Architecture Engineering. The certified and stamped report was received on August 30 by WRPS for release to ORP and Ecology in September.
- Completed the CHEM-D-42 leak assessment for Tank S-104, as part of the ongoing evaluation of assumed leaking tanks. The leak assessment team concluded the tank had not leaked and the decades old contamination plume near Tank S-104 was attributed to an overflow of a spare inlet nozzle. The Executive Safety Review Board was briefed and concurred with the findings of the leak assessment team. The leak assessment document is undergoing WRPS's review process. Release pending Ecology briefing.
- Completed in-tank video inspections for tanks B-104, B-105, TX-105, TX-106, TX-109, TX-118, S-107, SX-101, SX-103, SX-105, SX-113, and U-103.
- Released RPP-RPT-60093, *Fiscal Year 2017 Visual Inspection Report for Single-Shell Tanks*, Rev. 0.

Significant Planned Actions in the Next Six Months

- Release M-045-91I report RPP-IQRPE-50028 Single-Shell Tank System Structural Integrity Assessment Report.
- Complete review and approval of the FY 2018 SST visual inspection report.

Issues:

- None.

In-Tank Characterization and Summary

Tank Farms Assistant Manager: Glyn Trenchard
Federal Program Manager: Dustin Stewart
Ecology Project Manager: Jeff Lyon

Significant Past Accomplishments

Reports Completed or Released

For the period from August 1 through 31, 2018, the following reports were completed (internal access only) or released (external access):

- Completed:
 - RPP-PLAN-62387, *Tank 241-A-105 Grab Sampling and Analysis Plan - Fiscal Year 2018*, Rev. 0
 - RPP-PLAN-62383, *Tank 241-AW-102 Grab Sampling for Large Volume Testing at Pacific Northwest Laboratory (PNNL)*, Rev. 0
 - RPP-RPT-60989, *Final Analytical Report for Tank 241-AY-101 Grab Samples – Post-Recirculation*, Rev. 0
 - RPP-26781, *Tank Operations Contractor Sampling Projections for FY2019 through FY2023*, Rev. 14
- Released:
 - RPP-RPT-43992, *Derivation of Best-Basis Inventory for Tank 241-AN-106 as of August 1, 2018*, Rev. 20
 - RPP-RPT-54017, *Derivation of Best-Basis Inventory for Tank 241-AP-102 as of July 1, 2018*, Rev. 8
 - RPP-RPT-44637, *Derivation of Best-Basis Inventory for Tank 241-AZ-101 as of July 1, 2018*, Rev. 13
 - RPP-RPT-59892, *Derivation of Best-Basis Inventory for Tank 241-A-101 as of July 1, 2018*, Rev. 1
 - RPP-RPT-60167, *Derivation of Best-Basis Inventory for Tank 241-BY-112 as of July 1, 2018*, Rev. 1
 - HNF-EP-0182, *Waste Tank Summary Report for Month Ending July 31, 2018*, Rev. 367.

Tank Sampling

For the period from August 1 through 31, 2018, the following tank sampling was conducted:

- None.

Best-Basis Inventory Updates

Best-basis inventory updates for the following tank were completed in August 2018:

- 241-A-101
- 241-AN-106
- 241-AP-102
- 241-AZ-101
- 241-BY-112.

Significant Planned Actions in the Next Six Months***Tank Sampling:***

- Tank 241-AW-105 liquid grab sampling is planned for September 2018.
- Tank 241-A-105 solids grab sampling is planned for October 2018.
- Tank 241-AZ-102 leak detector pit grab sampling is planned for October 2018.
- Tank 241-AY-102 solids grab sampling is planned for October 2018.

Best-Basis Inventory Updates

Best-basis inventory updates for the following tanks are currently planned to be completed in September 2018:

- 241-A-104
- 241-A-105
- 241-AN-106
- 241-AP-103
- 241-AP-104
- 241-AP-108
- 241-AW-102
- 241-AW-104
- 241-AW-106
- 241-B-108
- 241-BY-108
- 241-S-102
- 241-SX-113
- 241-U-102.

Issues

- None.

Single-Shell Tank Closure Program

Tank Farms Assistant Manager: Glyn Trenchard
Federal Program Manager: Jan Bovier
Ecology Project Manager: Jeff Lyon

- M-045-59 Control Surface Water Infiltration Pathways as Needed**
- Due: To Be Determined. Will be implemented if needed to control or significantly reduce the likelihood of migration of subsurface contamination to groundwater at the SST waste management areas (WMA) (pending the corrective measures study report, M-45-58 Milestone, and implementation of other interim corrective measures).
- Status: On Schedule.
- M-045-62 Submit the Draft Tier 3 Closure Plan with Corrective Measures in Phase 2 Corrective Measures Implementation Work Plan (CMIP) for WMA-C**
- Due: To Be Determined. To be established in accordance with the date identified in the M-45-82 Milestone Tier 2 closure plan.
- Status: On Schedule.
- M-045-83 Complete the Closure of WMA-C by Completing Closure Activities Specified in the Tier 2 Closure Plan**
- Due: To Be Determined. To be established in accordance with the date identified in the M-45-82 Milestone Tier 2 closure plan.
- Status: On Schedule.
- M-045-84 Initiate Negotiations to Establish HFFACO Interim Milestones for Closure of 2nd SST WMA**
- Due: April 3, 2017.
- Status: Completed (March 14, 2017). Negotiations initiated on March 14, 2017.
- Note: Decision on location of next WMA to be closed needs to be finalized.
- M-045-92V Complete Construction of Barriers 1 (North) and 2 (South) and Expansion Barrier in 241-SX Farm**
- Due: October 31, 2019.
- Status: On Schedule.
- Note: This includes the construction of the SX Tank Farm expansion barrier as well.
- M-045-92W Submit to Ecology Design for Barrier 3 in 241-TX Farm**
- Due: October 31, 2019.
- Status: On Schedule.

- M-045-92AC** **Submit to Ecology for Approval a Maintenance and Performance Monitoring Plan for Interim Barriers**
Due: October 31, 2019.
Status: On Schedule.
- M-045-92X** **Barrier 3 in 241-TX Farm Design Approved by Ecology**
Due: January 31, 2020.
Status: On Schedule.
- M-045-92AD** **Submit Yearly Reports Summarizing the Results of Maintenance and Performance Monitoring Activities**
Due: October 31, 2020.
Status: On Schedule.
- M-045-92Y** **Complete Construction of Barrier 3 in 241-TX Farm**
Due: October 31, 2021.
Status: On Schedule.
- M-045-92Z** **Submit to Ecology Design/Maintenance and Performance Monitoring Plan for Barrier 4 in 241-U Farm**
Due: October 31, 2021.
Status: On Schedule.
- M-045-92AA** **Barrier 4 in 241-U Farm Design Approved by Ecology**
Due: January 31, 2022.
Status: On Schedule.
- M-045-85** **Initiate Negotiations of HFFACO Interim Milestones for Closure of Remaining WMAs**
Due: January 31, 2022.
Status: On Schedule.
- M-045-92AB** **Complete Construction of Barrier 4 in 241-U Farm**
Due: October 31, 2023.
Status: On Schedule.

M-045-00 Complete Closure of All SST Farms

Due: January 31, 2043.

Status: At Risk. Decision document 2016-005 signed August 22, 2016, requires this milestone to be addressed with the negotiations supporting M-062-45 Milestone. Negotiations began on September 8, 2016.

Significant Past Accomplishments

- Ecology formally approved RPP-RPT-58339, *Phase 2 RCRA Facility Investigation Report for Waste Management Area C*, and RPP-RPT-59379, *Waste Management Area C Phase 2 Corrective Measures Study Report*, on June 11, 2018.
- Ecology provided its comments on RPP-RPT-59389, *Tier 2 Resource Conservation and Recovery Act (RCRA) Closure Action Plan for Waste Management Area C*, and RPP-RPT-59390, *Tier 3 Resource Conservation and Recovery Act (RCRA) Component Closure Action Plan for 241-C-200 Series Tanks*, on June 25, 2018. Ecology's comments are being evaluated by WRPS and ORP.
- Completed construction of the SX Tank Farm barrier evapotranspiration basin. The SX Tank Farm barrier evapotranspiration basin will dispose of water collected on the SX Tank Farm interim surface barriers.
- Completed negotiations of near-term M-045-92 Milestone through Tri-Party Agreement (TPA) Change Control Form M-45-18-03. Finalized on June 28, 2018.

Significant Planned Activities in the Next Six Months

- Begin resolution of Ecology's comments on the *Resource Conservation and Recovery Act* tier 1, 2, and 3 closure plans
- Begin resolution of Ecology's comments on the RPP-RPT-58389 and RPP-RPT-59390 closure action plan reports
- Complete construction of the SX south barrier (barrier 1)
- Complete construction of the SX north barrier (barrier 2).

Issues

- DOE/ORP-2014-02, *Clean Closure Practicality Demonstration for the Single-Shell Tanks*, Rev. 1 dated July 23, 2014. ORP received Ecology letter 15-NWP-149, "Department of Ecology's Response Comments Regarding Review of the *Clean Closure Practicality Demonstration for the Single-Shell Tanks*, DOE/ORP-2014-02," dated August 3, 2015. Ecology provided partial comments on the document, ORP met with Ecology in November 2017 to discuss path forward. ORP is providing a revision to be included as an appendix to the report.
- Document RPP-RPT-58858, *Tier 1 Closure Plan Single-Shell Tank System*, submitted to Ecology September 30, 2015. Received partial comments on April 11, 2016. ORP to initiate a meeting for mutual understanding of status.

Single-Shell Tank Retrieval Program

Tank Farms Assistant Manager: Glyn Trenchard

Federal Program Manager: Jeff Rambo

Ecology Project Manager: Jeff Lyon

M-045-86 Submit Retrieval Data Report (RDR) To Ecology for 19 Tanks Retrieved Under Consent Decree

Due: To Be Determined (12 months after retrieval certification)

Status: On Schedule. Sub-milestone M-045-86D; RPP-RPT-60956, *Retrieval Data Report for Single-Shell Tank 241-C-105*, Rev. 0.

M-045-70 Complete Waste Retrieval from All Remaining Single Shell Tanks (SSTs)

Due: December 31, 2040.

Status: At Risk. Decision document 2016-005 signed August 22, 2016, requires this milestone be addressed with the negotiations supporting M-062-45 Milestone. Negotiations began on September 8, 2016.

Significant Past Accomplishments

- Refer to the Consent Decree monthly report for retrieval accomplishments.

Significant Planned Activities in the Next Six Months

- Refer to the Consent Decree monthly report for planned activities.

Issues

- Refer to the Consent Decree monthly report for retrieval issues.

Tank Operations Contract Overview

Earned Value Data: Fiscal Year 2018

July-18

| Tank Farms ORP-0014 WBS 5 - River Protection Project (in \$000s) | | | | | | | | | | |
|--|-------------|-------------|-------------|------------|-----------|------|------|-------------|-------------|----------|
| | BCWS | BCWP | ACWP | SV | CV | SPI | CPI | BAC | EAC | VAC |
| CM | \$54,121 | \$55,192 | \$51,392 | \$1,072 | \$3,800 | 1.02 | 1.07 | | | |
| FYTD | \$547,866 | \$532,648 | \$534,111 | (\$15,219) | (\$1,463) | 0.97 | 0.96 | \$672,749 | | |
| CTD | \$4,640,657 | \$4,601,311 | \$4,577,914 | (\$39,346) | \$23,397 | 0.98 | 1.01 | \$5,353,451 | \$5,330,478 | \$22,973 |

ACWP actual cost of work performed.

BAC budget at completion.

BCWP budgeted cost of work performed.

BCWS budgeted cost of work scheduled.

CM current month.

CPI cost performance index.

CTD contract to date.

CV cost variance.

EAC estimate at completion.

FYTD fiscal year to date.

SPI schedule performance index.

SV schedule variance.

VAC variance at completion.

The Earned Value Management System is intended to provide a status of how the contractor is progressing against its monthly planned work (i.e., schedule), and whether it is costing more or less to complete the work than planned. The earned value analysis is not intended to be a measurement of performance against existing TPA milestones.

The project plan is measured by expressing the schedule in terms of dollars spread over the anticipated project duration, and then for each month, determining how much of the planned work was accomplished or “earned,” as measured in equivalent dollars. If more work is accomplished than planned, then the project is ahead of schedule and has a favorable schedule variance (SV). Similarly, if less work is accomplished, the project is behind schedule and has an unfavorable SV. Accomplished work is reported in the month it was completed, which may not be when it was planned. For example, work completed in a month earlier than planned would be reported as a favorable SV for the month in which it was completed, but would be reported as an unfavorable SV in the month it was planned. The end result would be a net zero overall cumulative SV over these months. Likewise, work completed late will recover an earlier reported unfavorable SV.

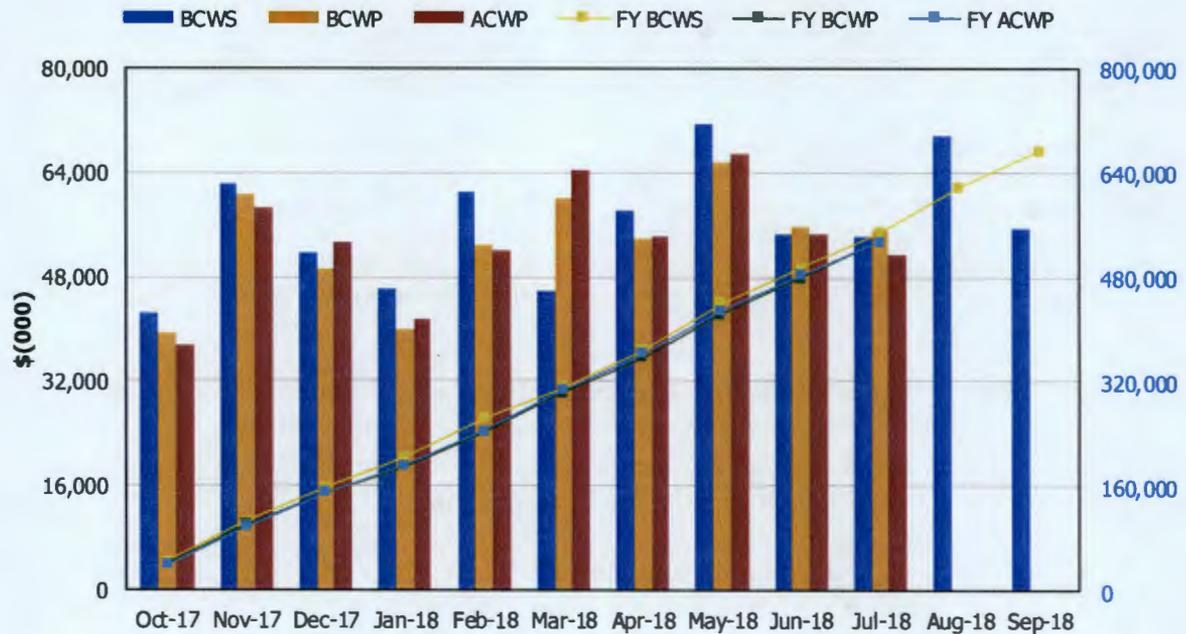
The cost variance (CV) measures the actual cost of work performed against the earned dollar value of that performed work. As an example, assume \$10,000 of work was planned to-date, \$8,000 was reported as being performed (earned), at an actual cost of \$9,000. This work would be reported as being \$2,000 behind schedule [a negative or unfavorable SV: $\$8,000 - \$10,000 = (\$2,000)$], and has cost \$1,000 more [a negative or unfavorable CV: $\$8,000 - \$9,000 = (\$1,000)$] than was planned for completing that work scope. Likewise, a favorable or positive CV would be reported if it cost less to complete the work than the performed dollar value of the work. The SV and CV are reported for each monthly period, FY-to-date, as well as for the contract-to-date value. The monthly variances can fluctuate significantly (for reasons noted earlier), so the FY or contract-to-date report provides a better indicator of the overall project completion status and can give a reasonable projection of how the project will finish, based on the progress-to-date.

Earned Value Data: Fiscal Year 2018

July-18

Tank Farms ORP-0014
WBS 5 - River Protection Project

EVMS Monthly and Fiscal Year Values



Earned Value Month

| Month | BCWS | BCWP | ACWP | SPI | CPI | FY BCWS | FY BCWP | FY ACWP | FY SPI | FY CPI |
|----------|-------------|-------------|-------------|------|------|-----------|-----------|-----------|--------|--------|
| Oct 2017 | \$42,505 | \$39,501 | \$37,634 | 0.93 | 1.05 | \$42,505 | \$39,501 | \$37,634 | 0.93 | 1.05 |
| Nov 2017 | \$62,362 | \$60,635 | \$58,396 | 0.97 | 1.04 | \$104,867 | \$100,136 | \$96,029 | 0.95 | 1.04 |
| Dec 2017 | \$51,860 | \$49,124 | \$53,170 | 0.95 | 0.92 | \$156,727 | \$149,260 | \$149,199 | 0.95 | 1.00 |
| Jan 2018 | \$46,168 | \$39,864 | \$41,402 | 0.86 | 0.96 | \$202,896 | \$189,124 | \$190,601 | 0.93 | 0.99 |
| Feb 2018 | \$61,045 | \$53,015 | \$51,943 | 0.87 | 1.02 | \$263,940 | \$242,139 | \$242,544 | 0.92 | 1.00 |
| Mar 2018 | \$45,861 | \$59,989 | \$64,439 | 1.31 | 0.93 | \$309,802 | \$302,128 | \$306,983 | 0.98 | 0.98 |
| Apr 2018 | \$58,100 | \$53,939 | \$54,269 | 0.93 | 0.99 | \$367,901 | \$356,066 | \$361,252 | 0.97 | 0.99 |
| May 2018 | \$71,411 | \$65,560 | \$66,929 | 0.92 | 0.98 | \$439,312 | \$421,626 | \$428,181 | 0.96 | 0.98 |
| Jun 2018 | \$54,434 | \$55,829 | \$54,538 | 1.03 | 1.02 | \$493,746 | \$477,456 | \$482,718 | 0.97 | 0.99 |
| Jul 2018 | \$54,121 | \$55,192 | \$51,392 | 1.02 | 1.07 | \$547,866 | \$532,648 | \$534,111 | 0.97 | 1.00 |
| Aug 2018 | \$69,591 | | | | | \$617,457 | | | | |
| Sep 2018 | \$55,292 | | | | | \$672,749 | | | | |
| CTD | \$4,640,657 | \$4,601,311 | \$4,577,914 | 0.99 | 1.01 | | | | | |

ACWP actual cost of work performed.
 BCWP budgeted cost of work performed.
 BCWS budgeted cost of work scheduled.
 CPI cost performance index.

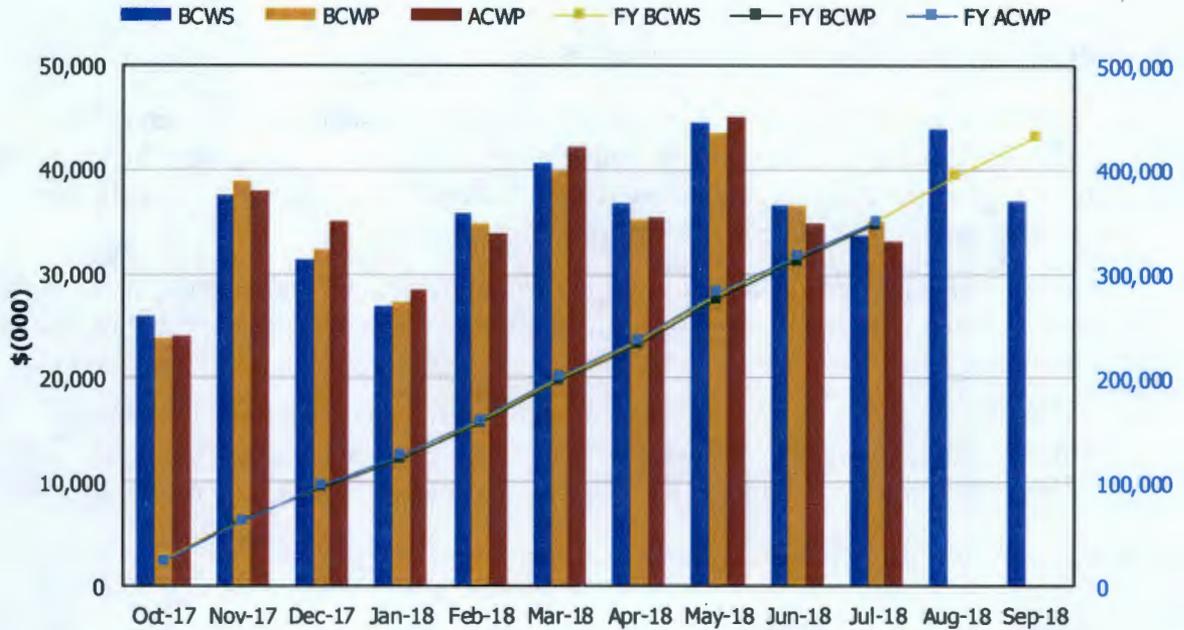
CM current month.
 CTD contract to date.
 FY fiscal year.
 SPI schedule performance index.

Earned Value Data: Fiscal Year 2018

July-18

Tank Farms ORP-0014
WBS 5.1 - Base Operations

EVMS Monthly and Fiscal Year Values



Earned Value Month

| Month | BCWS | BCWP | ACWP | SPI | CPI | FY BCWS | FY BCWP | FY ACWP | FY SPI | FY CPI |
|------------|--------------------|--------------------|--------------------|-------------|-------------|-----------|-----------|-----------|--------|--------|
| Oct 2017 | \$25,995 | \$23,854 | \$24,021 | 0.92 | 0.99 | \$25,995 | \$23,854 | \$24,021 | 0.92 | 0.99 |
| Nov 2017 | \$37,542 | \$38,850 | \$37,961 | 1.03 | 1.02 | \$63,537 | \$62,704 | \$61,982 | 0.99 | 1.01 |
| Dec 2017 | \$31,376 | \$32,304 | \$35,027 | 1.03 | 0.92 | \$94,913 | \$95,008 | \$97,009 | 1.00 | 0.98 |
| Jan 2018 | \$26,992 | \$27,266 | \$28,456 | 1.01 | 0.96 | \$121,905 | \$122,274 | \$125,465 | 1.00 | 0.97 |
| Feb 2018 | \$35,800 | \$34,837 | \$33,927 | 0.97 | 1.03 | \$157,704 | \$157,111 | \$159,392 | 1.00 | 0.99 |
| Mar 2018 | \$40,641 | \$39,755 | \$42,150 | 0.98 | 0.94 | \$198,346 | \$196,865 | \$201,541 | 0.99 | 0.98 |
| Apr 2018 | \$36,747 | \$35,279 | \$35,441 | 0.96 | 1.00 | \$235,093 | \$232,144 | \$236,982 | 0.99 | 0.98 |
| May 2018 | \$44,456 | \$43,494 | \$45,066 | 0.98 | 0.97 | \$279,549 | \$275,638 | \$282,047 | 0.99 | 0.98 |
| Jun 2018 | \$36,632 | \$36,623 | \$34,880 | 1.00 | 1.05 | \$316,181 | \$312,262 | \$316,927 | 0.99 | 0.99 |
| Jul 2018 | \$33,594 | \$34,954 | \$33,082 | 1.04 | 1.06 | \$349,775 | \$347,216 | \$350,009 | 0.99 | 0.99 |
| Aug 2018 | \$43,990 | | | | | \$393,765 | | | | |
| Sep 2018 | \$37,027 | | | | | \$430,792 | | | | |
| CTD | \$3,074,979 | \$3,053,962 | \$3,024,394 | 0.99 | 1.01 | | | | | |

ACWP actual cost of work performed.
 BCWP budgeted cost of work performed.
 BCWS budgeted cost of work scheduled.
 CPI cost performance index.

CM current month.
 CTD contract to date.
 FY fiscal year.
 SPI schedule performance index.

Tank Farms Assistant Manager: Glyn Trenchard
Federal Project Director: Steve Pfaff

5.01 – Base Operations

The July 2018 variances below do not impact TPA milestones.

The **favorable** SV of \$1,360,800 is primarily due to.

- For the Industrial Hygiene Trailer project, the favorable schedule variance is due to schedule recovery related to the 10 wide trailer install project activities. The excavation and site prep activities have been recovered. Receipt of the trailers and installation activities will be complete in the next performance period.
- For the LERF processing campaigns, the favorable schedule variance is due to recovering schedule on previously delayed operations. Continued recovery is expected in upcoming months.
- For the LERF Basin 42 Cover Replacement project, the current favorable schedule variance is due to schedule recovery in performance. Completed approximately 70 percent of the cover removal and the new cover material has been received.

The **favorable** CV of \$1,872,400 is primarily due to:

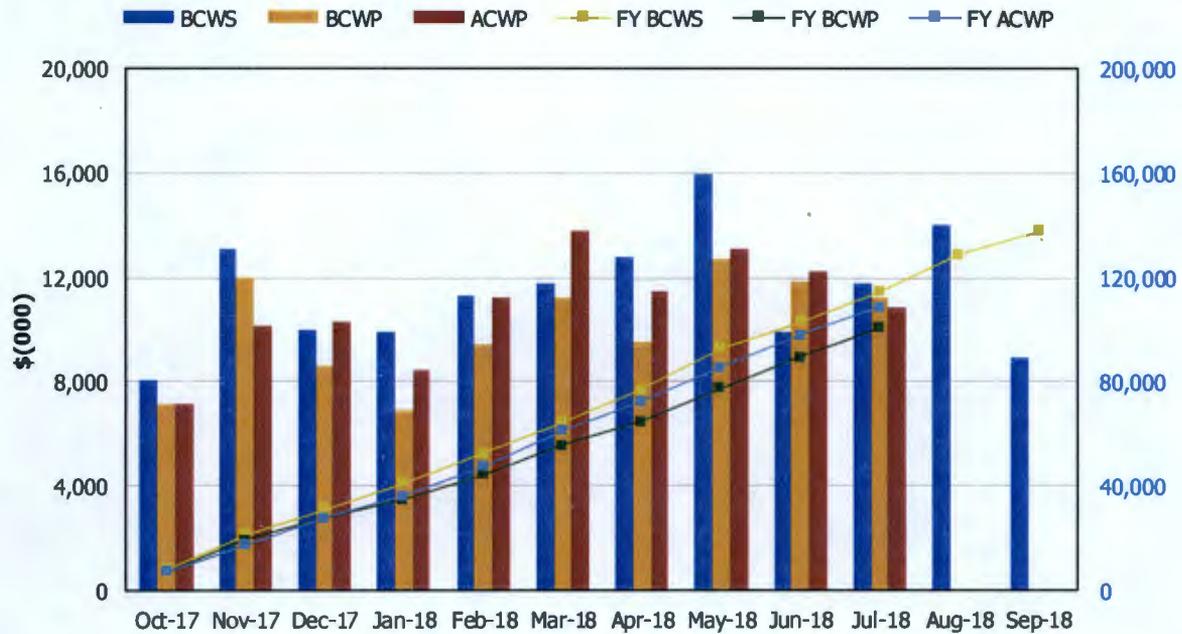
- During sampling of the chemical cartridges in the field, labor efficiencies were gained. A change in execution allowed the same crew to sample multiple tanks simultaneously using two machines, thereby accomplishing two cartridge tests under the same shift, resulting in less resources being required.

Earned Value Data: Fiscal Year 2018

July-18

Tank Farms ORP-0014
WBS 5.2 - Retrieve and Close SSTs

EVMS Monthly and Fiscal Year Values



Earned Value Month

| Month | BCWS | BCWP | ACWP | SPI | CPI | FY BCWS | FY BCWP | FY ACWP | FY SPI | FY CPI |
|----------|----------|----------|----------|------|------|-----------|-----------|-----------|--------|--------|
| Oct 2017 | \$8,053 | \$7,119 | \$7,127 | 0.88 | 1.00 | \$8,053 | \$7,119 | \$7,127 | 0.88 | 1.00 |
| Nov 2017 | \$13,058 | \$11,996 | \$10,119 | 0.92 | 1.19 | \$21,111 | \$19,115 | \$17,246 | 0.91 | 1.11 |
| Dec 2017 | \$9,964 | \$8,572 | \$10,318 | 0.86 | 0.83 | \$31,075 | \$27,686 | \$27,563 | 0.89 | 1.00 |
| Jan 2018 | \$9,940 | \$6,911 | \$8,464 | 0.70 | 0.82 | \$41,015 | \$34,597 | \$36,027 | 0.84 | 0.96 |
| Feb 2018 | \$11,310 | \$9,456 | \$11,225 | 0.84 | 0.84 | \$52,326 | \$44,053 | \$47,252 | 0.84 | 0.93 |
| Mar 2018 | \$11,787 | \$11,248 | \$13,799 | 0.95 | 0.82 | \$64,113 | \$55,301 | \$61,051 | 0.86 | 0.91 |
| Apr 2018 | \$12,763 | \$9,509 | \$11,495 | 0.75 | 0.83 | \$76,875 | \$64,810 | \$72,546 | 0.84 | 0.89 |
| May 2018 | \$15,972 | \$12,694 | \$13,076 | 0.79 | 0.97 | \$92,848 | \$77,504 | \$85,622 | 0.83 | 0.91 |
| Jun 2018 | \$9,930 | \$11,819 | \$12,233 | 1.19 | 0.97 | \$102,778 | \$89,323 | \$97,855 | 0.87 | 0.91 |
| Jul 2018 | \$11,803 | \$11,257 | \$10,812 | 0.95 | 1.04 | \$114,581 | \$100,580 | \$108,667 | 0.88 | 0.93 |
| Aug 2018 | \$13,994 | | | | | \$128,575 | | | | |
| Sep 2018 | \$8,893 | | | | | \$137,468 | | | | |

| | | | | | |
|-----|-----------|-----------|-----------|------|------|
| CTD | \$918,152 | \$905,243 | \$947,219 | 0.99 | 0.96 |
|-----|-----------|-----------|-----------|------|------|

ACWP actual cost of work performed.
 BCWP budgeted cost of work performed.
 BCWS budgeted cost of work scheduled.
 CPI cost performance index.

CM current month.
 CTD contract to date.
 FY fiscal year.
 SPI schedule performance index.

Tank Farms Assistant Manager: Glyn Trenchard
Federal Program Manager: Jeff Rambo

5.02 – Retrieve and Close Single-Shell Tanks

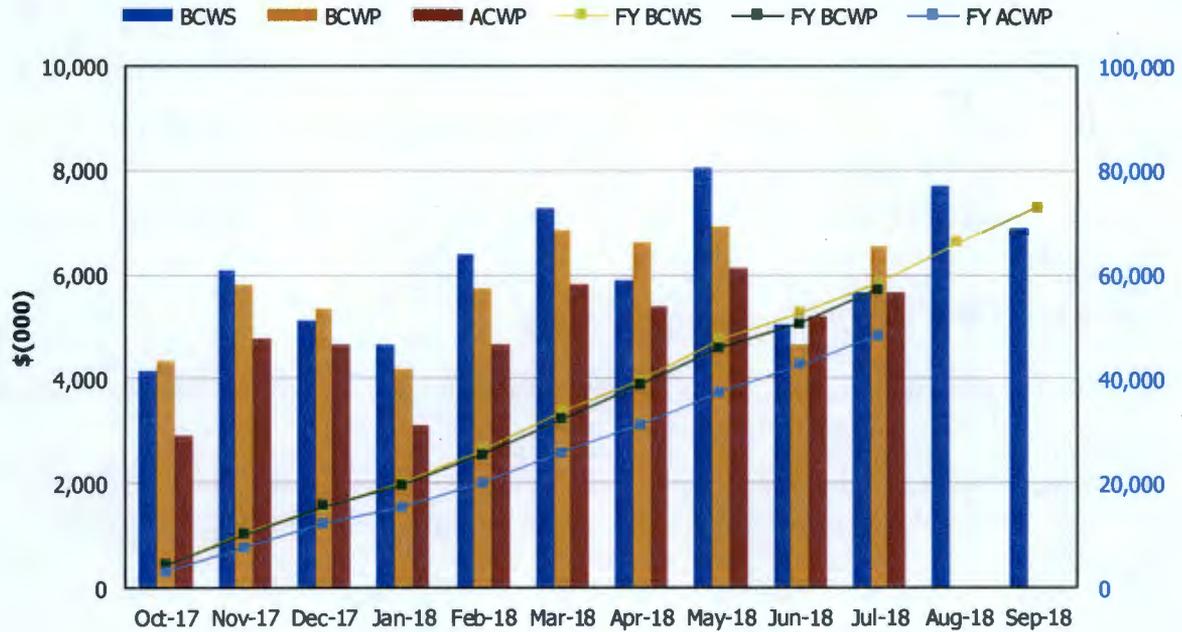
For the retrieval portion see the Consent Decree monthly report for cost and schedule status.

Earned Value Data: Fiscal Year 2018

July-18

Tank Farms ORP-0014
WBS 5.3 - WFD/Treatment Png/DST Retrieval/Closure

EVMS Monthly and Fiscal Year Values



Earned Value Month

| Month | BCWS | BCWP | ACWP | SPI | CPI | FY BCWS | FY BCWP | FY ACWP | FY SPI | FY CPI |
|------------|------------------|------------------|------------------|-------------|-------------|----------|----------|----------|--------|--------|
| Oct 2017 | \$4,163 | \$4,326 | \$2,909 | 1.04 | 1.49 | \$4,163 | \$4,326 | \$2,909 | 1.04 | 1.49 |
| Nov 2017 | \$6,068 | \$5,798 | \$4,754 | 0.96 | 1.22 | \$10,231 | \$10,124 | \$7,663 | 0.99 | 1.32 |
| Dec 2017 | \$5,132 | \$5,334 | \$4,651 | 1.04 | 1.15 | \$15,363 | \$15,458 | \$12,314 | 1.01 | 1.26 |
| Jan 2018 | \$4,660 | \$4,193 | \$3,092 | 0.90 | 1.36 | \$20,023 | \$19,651 | \$15,406 | 0.98 | 1.28 |
| Feb 2018 | \$6,383 | \$5,712 | \$4,641 | 0.89 | 1.23 | \$26,406 | \$25,363 | \$20,047 | 0.96 | 1.27 |
| Mar 2018 | \$7,279 | \$6,836 | \$5,798 | 0.94 | 1.18 | \$33,685 | \$32,199 | \$25,845 | 0.96 | 1.25 |
| Apr 2018 | \$5,875 | \$6,634 | \$5,394 | 1.13 | 1.23 | \$39,560 | \$38,833 | \$31,238 | 0.98 | 1.24 |
| May 2018 | \$8,060 | \$6,934 | \$6,112 | 0.86 | 1.13 | \$47,620 | \$45,767 | \$37,351 | 0.96 | 1.23 |
| Jun 2018 | \$5,047 | \$4,665 | \$5,173 | 0.92 | 0.90 | \$52,667 | \$50,433 | \$42,524 | 0.96 | 1.19 |
| Jul 2018 | \$5,653 | \$6,523 | \$5,656 | 1.15 | 1.15 | \$58,320 | \$56,955 | \$48,179 | 0.98 | 1.18 |
| Aug 2018 | \$7,695 | | | | | \$66,014 | | | | |
| Sep 2018 | \$6,895 | | | | | \$72,910 | | | | |
| CTD | \$491,076 | \$487,274 | \$444,990 | 0.99 | 1.10 | | | | | |

ACWP actual cost of work performed.
 BCWP budgeted cost of work performed.
 BCWS budgeted cost of work scheduled.
 CPI cost performance index.

CM current month.
 CTD contract to date.
 FY fiscal year.
 SPI schedule performance index.

One System Division Director: Joni Grindstaff
Federal Program Manager: Kaylin Burnett

5.03 – Waste Feed Delivery/Treatment

The July 2018 variances below do not impact TPA milestones.

The **favorable** SV of \$870,000 was primarily due to:

- The completion of late-start waste feed delivery scope activities that were started later than originally scheduled in the baseline.
- Early completion of the low-activity waste feed 30 percent design work and the AP-02D equipment fabrication.

The **favorable** CV of \$867,000 was primarily due to:

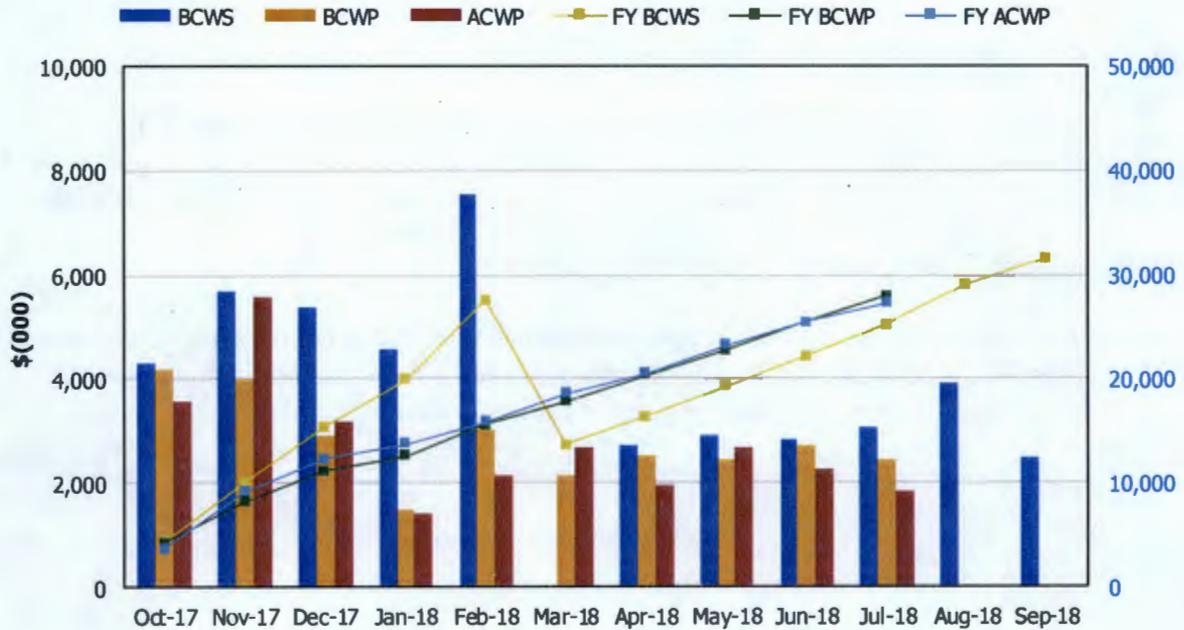
- The required resources being significantly less than the planned baseline for Integrated Disposal Facility glass testing scope.
- Efficiencies realized in the 30 percent design, work plan, tank sampling and analysis plan, and collection of the initial tank sample for the 2,000-gallon test bed scope.

Earned Value Data: Fiscal Year 2018

July-18

**Tank Farms ORP-0014
WBS 5.5 - Treat Waste**

EVMS Monthly and Fiscal Year Values



Earned Value Month

| Month | BCWS | BCWP | ACWP | SPI | CPI | FY BCWS | FY BCWP | FY ACWP | FY SPI | FY CPI |
|----------|------------|-----------|-----------|-------|------|----------|----------|----------|--------|--------|
| Oct 2017 | \$4,294 | \$4,202 | \$3,576 | 0.98 | 1.17 | \$4,294 | \$4,202 | \$3,576 | 0.98 | 1.17 |
| Nov 2017 | \$5,693 | \$3,992 | \$5,562 | 0.70 | 0.72 | \$9,988 | \$8,193 | \$9,139 | 0.82 | 0.90 |
| Dec 2017 | \$5,389 | \$2,914 | \$3,174 | 0.54 | 0.92 | \$15,377 | \$11,108 | \$12,313 | 0.72 | 0.90 |
| Jan 2018 | \$4,576 | \$1,494 | \$1,391 | 0.33 | 1.07 | \$19,953 | \$12,601 | \$13,704 | 0.63 | 0.92 |
| Feb 2018 | \$7,552 | \$3,010 | \$2,150 | 0.40 | 1.40 | \$27,504 | \$15,612 | \$15,854 | 0.57 | 0.98 |
| Mar 2018 | (\$13,846) | \$2,151 | \$2,692 | -0.16 | 0.80 | \$13,658 | \$17,762 | \$18,546 | 1.30 | 0.96 |
| Apr 2018 | \$2,715 | \$2,517 | \$1,940 | 0.93 | 1.30 | \$16,373 | \$20,279 | \$20,485 | 1.24 | 0.99 |
| May 2018 | \$2,922 | \$2,437 | \$2,675 | 0.83 | 0.91 | \$19,295 | \$22,716 | \$23,160 | 1.18 | 0.98 |
| Jun 2018 | \$2,825 | \$2,722 | \$2,252 | 0.96 | 1.21 | \$22,121 | \$25,438 | \$25,412 | 1.15 | 1.00 |
| Jul 2018 | \$3,071 | \$2,458 | \$1,838 | 0.80 | 1.34 | \$25,192 | \$27,896 | \$27,250 | 1.11 | 1.02 |
| Aug 2018 | \$3,911 | | | | | \$29,103 | | | | |
| Sep 2018 | \$2,477 | | | | | \$31,580 | | | | |
| CTD | \$136,340 | \$134,722 | \$142,144 | 0.99 | 0.95 | | | | | |

ACWP actual cost of work performed.
 BCWP budgeted cost of work performed.
 BCWS budgeted cost of work scheduled.
 CPI cost performance index.

CM current month.
 CTD contract to date.
 FY fiscal year.
 SPI schedule performance index.

Tank Farms Assistant Manager: Glyn Trenchard

Deputy Federal Project Director: Janet Diediker

5.05 – Treat Waste

The July 2018 variances below do not impact the TPA milestones.

The current month **unfavorable** SV of (\$612,900) is due to:

- Delay to the LAWPS south geotechnical fieldwork attributed to radiation technician resources not being available. As a result, the penetration tests have been postponed to be completed in September, when the radiation technicians are planned to be available.

The current month **favorable** CV of \$620,300 is due to:

- Efficiencies realized by the architect-engineer in the completion instrumentation and controls; process; piping; heating, ventilation, and air-conditioning; and electrical deliverables in support of the 45 percent design review.

| Milestone or TSD | FY year listed | Facility/MS |
|------------------|----------------|--|
| M-045-00 | 2017 | Complete Closure of All SST Farms |
| M-045-13 | 2017 | Interim Completion Of Tank S-112 Single-Shell Tank (SST) Waste Retrieval And Closure |
| M-045-13E | 2017 | Complete Negotiations for Interim Milestones for Closure of S-112 |
| M-045-15 | 2017 | |
| M-045-15A | 2017 | |
| M-045-15D | 2017 | |
| M-045-56M | 2017 | |
| M-045-59 | 2017 | |
| M-045-62 | 2017 | |
| M-045-83 | 2017 | |
| M-045-85 | 2017 | |
| M-045-86 | 2017 | |
| M-045-86D | 2017 | |
| M-045-86I | 2017 | |
| M-045-91E2 | 2017 | |
| M-045-91I | 2017 | |
| M-045-92 | 2017 | |
| M-045-92N | 2017 | |
| M-045-92O | 2017 | |
| M-045-92P | 2017 | |
| M-045-92Q | 2017 | |
| M-045-92R | 2017 | |
| M-045-92S | 2017 | |
| M-045-92T | 2017 | |
| M-045-92U | 2017 | |
| M-047-00 | 2017 | |

| Milestone or TSD | FY year listed | Facility/MS |
|------------------|----------------|--|
| M-047-07 | 2017 | |
| M-062-01 | 2017 | |
| M-062-21 | 2017 | |
| M-062-31-T01 | 2017 | |
| M-062-32-T01 | 2017 | |
| M-062-33-T01 | 2017 | |
| M-062-34-T01 | 2017 | |
| M-062-40F | 2017 | |
| M-062-45-T01 | 2017 | |
| M-062-45-ZZ | 2017 | |
| M-062-45-ZZ-A | 2017 | |
| M-090-00 | 2017 | |
| M-090-13 | 2017 | |
| S-2 -8 | 2017 | LERF |
| S-2-4 | 2017 | Single Shell Tank System |
| T-2-6 | 2017 | 242-A Evaporator |
| T-2-8 | 2017 | ETF |
| S-2-3 | 2018 | Double Shell Tank System |
| TS-2-8 | 2018 | Low Activity Waste Pretreatment System (LAWPS) |