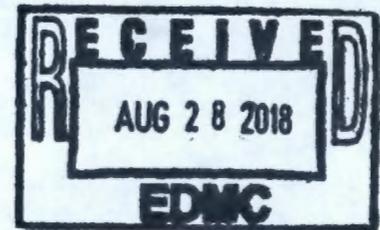


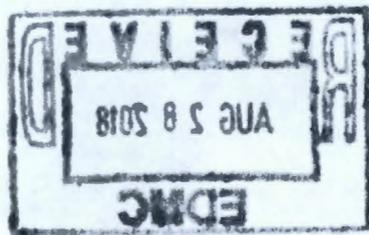
**FINAL**

Office of River Protection  
Tri-Party Agreement  
Report  
August<sup>1</sup> 2018



<sup>1</sup> The narrative descriptions of progress in this report cover the period from July 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 June 1–30, 2018.

<b>Topic</b>	<b>Page</b>
Acronyms and Abbreviations .....	2
Administrative Items/Milestone Status .....	3
System Plan .....	5
Acquisition of New Facilities .....	6
Supplemental Treatment and Part B Permit Applications .....	8
Direct-Feed Low-Activity Waste Projects .....	11
242-A Evaporator Status .....	13
Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility .....	14
Tank System Update .....	16
Single-Shell Tank Integrity Assurance .....	19
In-Tank Characterization and Summary .....	20
Single-Shell Tank Closure Program .....	22
Single-Shell Tank Retrieval Program .....	27
Tank Operations Contract Overview .....	28



## 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**

<b>Milestone</b>	<b>Title</b>	<b>Due Date</b>	<b>TPA PM</b>	<b>Status</b>
<b>Prior Years</b>				
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 <sup>1</sup>	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 <sup>1</sup>	J.B. Bovier	On Schedule
<b>Fiscal Year 2018</b>				
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-045-92O	Barrier 3 (TX Tank Farm) Design/Monitoring Plan Submitted to Ecology	06/30/2018	J.B. Bovier	Deleted
M-045-56N	Ecology and DOE Agree, at a Minimum, to Meet Yearly (by July)	07/31/2018	J.B. Bovier	On Schedule
M-045-91I	Provide IQRPE Certification of SSTs Structural Integrity	09/30/2018	D.M. Stewart	On Schedule
M-045-92T	Barrier 3 (TX Tank Farm) Design/Monitoring Plan Approved by Ecology	09/30/2018	J.B. Bovier	Deleted
<b>Fiscal Year 2019</b>				
M-045-92N	Complete Construction of Barriers 1 and 2 in 241-SX Farm	10/31/2018	J.B. Bovier	Deleted
M-045-92Q	Barrier 4 (U Tank Farm) Design/Monitoring Plan Submitted to Ecology	06/30/2019	J.B. Bovier	Deleted
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
M-045-92U	Barrier 4 (U Tank Farm) Design/Monitoring Plan Approved by Ecology	09/30/2019	J.B. Bovier	Deleted

<sup>1</sup> 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.

CMIP = corrective measures implementation work plan.

CR = change request.

DOE = U.S. Department of Energy.

Ecology = Washington State Department of Ecology.

IQRPE = independent qualified registered professional engineer.

Mod = modification.

PM = project manager.

RCRA = *Resource Conservation and Recovery Act.*

SST = single-shell tank.

TBD = to be determined.

TPA = Tri-Party Agreement.

WTP = Waste Treatment and Immobilization Plant.

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. The current date for concluding negotiations is August 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 (LAMIT) 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. The new date for concluding negotiations is August 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 August 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. The new date for concluding negotiations is August 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 August 15, 2018.

**Issues**

- None.

## **Direct-Feed Low-Activity Waste Projects**

<b><i>Tank Farms Assistant Manager:</i></b>	Glyn Trenchard
<b><i>LAWPS Federal Manager:</i></b>	Steve Pfaff
<b><i>TSCR Federal Manager:</i></b>	Sahid Smith
<b><i>Ecology Project Manager:</i></b>	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 of 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.

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

- WRPS to conduct 30 percent design review of TSCR August 27 through September 12. The onsite review and breakout sessions are scheduled for August 29 and 30. 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 due to a failure of the PB-1 recirculation pump. Engineering evaluation for pump replacement is in progress. During the four days of operation, EC-09 had a waste volume reduction of 20,000 gallons.

### Significant Past Accomplishments

- Initiated fire alarm control panel replacement.

### Significant Planned Actions in the Next Six Months

- Establish the future campaign and outage scheduling
- Replace fire alarm control panel at 242-A Evaporator
- Support, as necessary, test bed initiative field activities involving the 242-A Evaporator
- Determine path forward on PB-1 replacement.

### Issues

- Campaign EC-09 operations were completed in June when the PB-1 recirculation pump failed. Engineering evaluation is in progress.

## 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)
<b>Total Volume (as of July 29, 2018)</b>	~ 0 Mgal <sup>1</sup>	~ 6.29 Mgal	~ 7.37 Mgal

<b>Waste Received</b>			
AZ-301 Condensate	-	6,500 gal	-
MWT-31 and 34 Leachate	-	~ 28,000 gal	-

<sup>1</sup> Basin 42 was placed out-of-service on June 1, 2018.

gal = gallon.  
Mgal = million gallons  
MWT = mixed waste trench.

### Significant Past Accomplishments

- Total FY 2018 volume processed (as of July 29, 2018): Approximately 2,160,000 gallons.
- Continued LERF Basin 42 cover removal activities in support of cover replacement project.

### 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.

**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).

### *Double-Shell Tank Integrity:*

#### Significant Past Accomplishments

- None.

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

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

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

– 241-AY-101	(completed)	– 241-AZ-102	(ongoing).
– 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 liners:
  - 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.
  - Continue 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.<sup>2</sup>
- 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.<sup>2</sup>

### Issues

- None.

### *Single-Shell Tank Integrity:*

#### Significant Past Accomplishments

- WRPS awarded the contract for the single-shell tank (SST) integrity assessment project as described in M-045-91I (assessment of structural integrity) to Meier Architecture Engineering. The integrity assessment activities are underway.
- 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 the 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

- Complete M-045-91I report RPP-IQRPE-50028, *Single-Shell Tank System Structural Integrity Assessment Report*
- Complete the FY 2018 SST visual inspection report.

### Issues

- None.

---

<sup>2</sup> Will not occur in the next 6 months, included for information only.

***Independent Qualified Registered Professional Engineer Activities:*****Significant Past Accomplishments**

- 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.

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

- Support IQRPE with continued development of the SST structural integrity assessment report.
- 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 plan 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.

## **Single-Shell Tank Integrity Assurance**

**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**

- Draft B of the 2018 SST IQRPE report was reviewed by WRPS and ORP. Review comments were submitted to the IQRPE for consideration.

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

- Complete M-045-91I report RPP-IQRPE-50028 Single-Shell Tank System Structural Integrity Assessment 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

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

- Completed:
  - RPP-PLAN-62366, *Tank 241-AW-102 Grab Sampling and Analysis Plan in Support of Test Bed Initiative-Phase 2*, Rev. 0
  - RPP-RPT-60742, *Final Report for Tank 241-AP-107 Grab Sampling 2017*, Rev. 0
  - RPP-RPT-60909, *Data Quality Objectives for Sampling Tank 241-A-105*, Rev 0
- Released:
  - RPP-RPT-57019, *Derivation of Best-Basis Inventory for Tank 241-BY-101 as of July 1, 2018*, Rev. 2
  - HNF-EP-0182, *Waste Tank Summary Report for Month Ending June 30, 2018*, Rev. 366.

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

- Completed Tank 241-AW-102 liquid grab sampling July 19, 2018. Six samples were received at the laboratory.

### 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 off-riser sampling system solids sampling is planned for October 2018.
- Tank 241-AZ-102 leak detector pit sampling is planned for October 2018.
- Tank 241-AY-102 solids grab sampling is planned for October 2018.

#### **Issues**

- None.

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

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

- 241-BY-101.

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

- 241-A-101
- 241-A-104
- 241-AP-102
- 241-AP-108
- 241-AW-106
- 241-AZ-101
- 241-BY-108
- 241-BY-112
- 241-S-102.

**Data Quality Objectives Updates**

- 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-045-920 Barrier 3 (TX Tank Farm Barrier) Design/Monitoring Plan Submitted to Ecology**

**Due:** June 30, 2018.

**Status:** This milestone was deleted. Tri-Party Agreement (TPA) Change Control Form M-45-18-03, signed on June 28, 2018, modified interim milestone M-045-92 by resequencing the schedule for design, construction, and monitoring of tank farm surface barriers.

- M-045-92T    Barrier 3 (TX Tank Farm Barrier) Design/Monitoring Plan Approved by Ecology**  
Due: September 30, 2018.  
Status: This milestone was deleted. TPA Change Control Form M-45-18-03, signed on June 28, 2018, modified interim milestone M-045-92 by re-sequencing the schedule for design, construction, and monitoring of tank farm surface barriers.
- M-045-92N    Complete Construction of Barriers 1 and 2 in 241-SX Farm**  
Due: October 31, 2018.  
Status: This milestone was deleted. TPA Change Control Form M-45-18-03, signed on June 28, 2018, modified interim milestone M-045-92 by re-sequencing the schedule for design, construction, and monitoring of tank farm surface barriers.
- M-045-92Q    Barrier 4 (U Tank Farm Barrier) Design/Monitoring Plan Submitted to Ecology**  
Due: June 30, 2019.  
Status: This milestone was deleted. TPA Change Control Form M-45-18-03, signed on June 28, 2018, modified interim milestone M-045-92 by re-sequencing the schedule for design, construction, and monitoring of tank farm surface barriers.
- M-045-92U    Barrier 4 (U Tank Farm Barrier) Design/Monitoring Plan Approved by Ecology**  
Due: September 30, 2019.  
Status: This milestone was deleted. TPA Change Control Form M-45-18-03, signed on June 28, 2018, modified interim milestone M-045-92 by re-sequencing the schedule for design, construction, and monitoring of tank farm surface barriers.
- M-045-92P    Complete Construction of Barrier 3 (TX Tank Farm Barrier)**  
Due: October 31, 2019.  
Status: This milestone was deleted. TPA Change Control Form M-45-18-03, signed on June 28, 2018, modified interim milestone M-045-92 by re-sequencing the schedule for design, construction, and monitoring of tank farm surface barriers.

- M-045-92R Complete Construction of Barrier 4 (U Tank Farm Barrier)**  
Due: October 31, 2020.  
Status: This milestone was deleted. TPA Change Control Form M-45-18-03, signed on June 28, 2018, modified interim milestone M-045-92 by re-sequencing the schedule for design, construction, and monitoring of tank farm surface barriers.
- M-045-92V Complete Construction of Barriers 1 and 2 (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.
- On May 10, 2018, Ecology and ORP formally agreed upon the size of barrier 3 at TX Tank Farm.
- Completed negotiations of near-term M-045-92 Milestone through 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. Awaiting final Ecology comments.
- 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. Awaiting final Ecology comments.

## 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. Submilestone 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

June-18

Tank Farms ORP-0014 WBS 5 - River Protection Project in (\$000s)										
	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC	EAC	VAC
CM	\$54,434	\$55,829	\$54,538	\$1,395	\$1,292	1.03	1.02			
FYTD	\$493,746	\$477,456	\$482,719	(\$16,290)	(\$5,263)	0.97	0.98	\$672,584		
CTD	\$4,586,536	\$4,546,119	\$4,526,521	(\$40,417)	\$19,598	0.99	1.00	\$4,765,374	\$4,754,905	\$10,469

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.

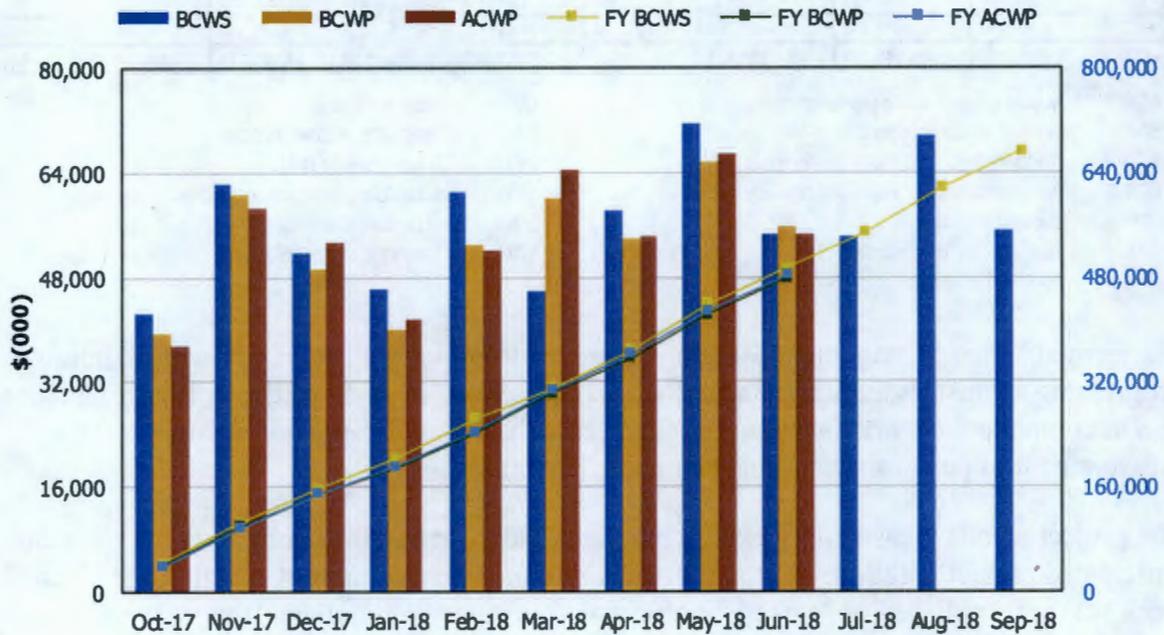
The SV and CV are reported for each monthly period, FY-to-date, as well as for the contract-to-date value. The monthly variances can fluctuate significantly (for reasons noted earlier), so the FY or contract-to-date report provides a better indicator of the overall project completion status and can give a reasonable projection of how the project will finish, based on the progress-to-date.

Earned Value Data: Fiscal Year 2018

June-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	\$54,066					\$547,812				
Aug 2018	\$69,518					\$617,330				
Sep 2018	\$55,253					\$672,584				
<b>CTD</b>	<b>\$4,586,536</b>	<b>\$4,546,119</b>	<b>\$4,526,521</b>	<b>0.99</b>	<b>1.00</b>					

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

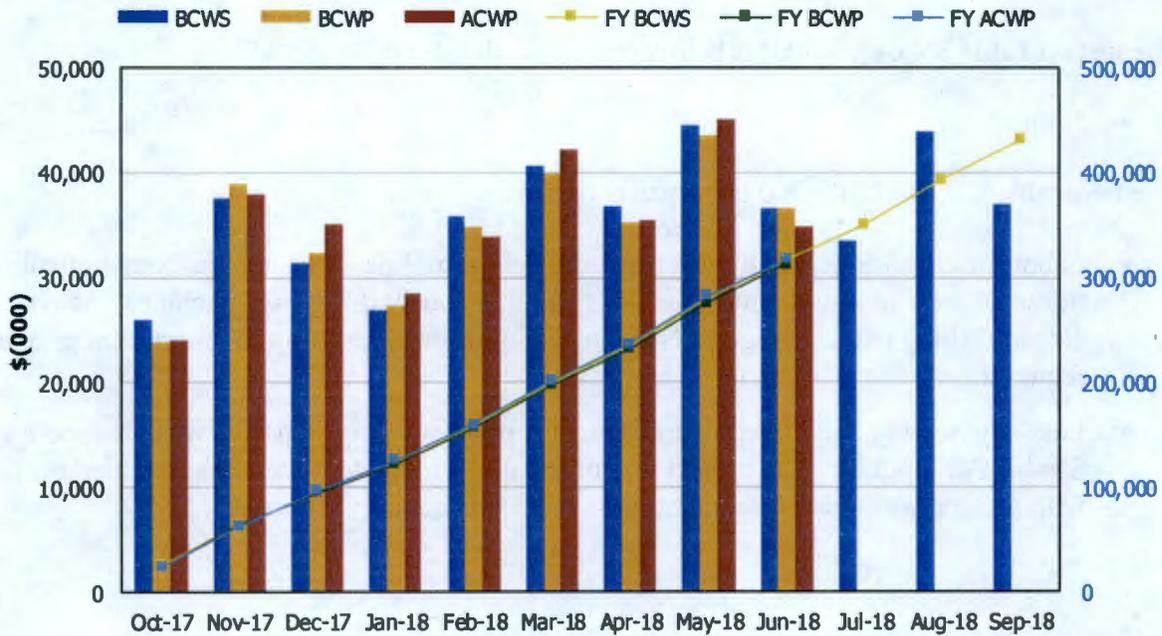
CM current month.  
 CTD contract to date.  
 FY fiscal year.  
 SPI schedule performance index.

Earned Value Data: Fiscal Year 2018

June-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	\$33,539					\$349,720				
Aug 2018	\$43,918					\$393,638				
Sep 2018	\$36,989					\$430,627				
<b>CTD</b>	<b>\$3,041,385</b>	<b>\$3,019,007</b>	<b>\$2,991,312</b>	<b>0.99</b>	<b>1.01</b>					

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 June 2018 variances below do not impact TPA milestones.

The **unfavorable** SV of (\$8,800) is below reportable threshold.

- None.

The **favorable** CV of \$1,743,300 is primarily due to:

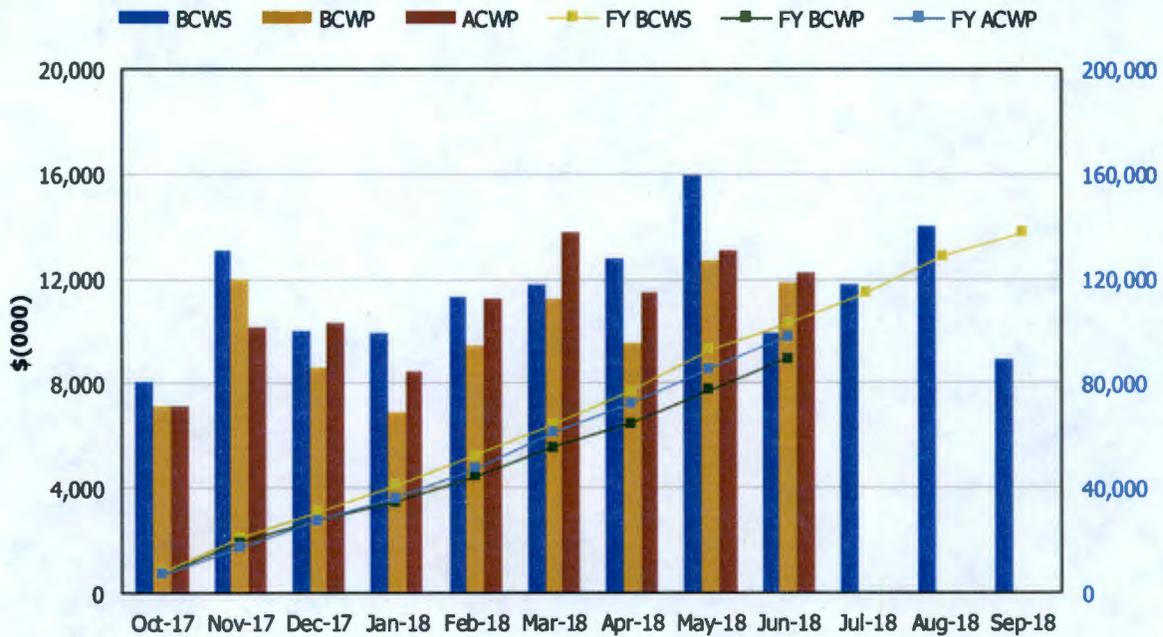
- Labor efficiencies gained during cartridge field sampling. A change in execution allowed the same crew to sample multiple tanks simultaneously using two machines, thereby accomplishing two cartridge tests under the same shift, resulting in less resources being required.
- Less engineering and project management support was required than was planned for the Strobic Air Upgrade. The project was originally planned to be tested/assembled onsite with greater resource requirements than what was actually required.

Earned Value Data: Fiscal Year 2018

June-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					\$114,581				
Aug 2018	\$13,994					\$128,575				
Sep 2018	\$8,893					\$137,468				
<b>CTD</b>	<b>\$906,349</b>	<b>\$893,986</b>	<b>\$936,407</b>	<b>0.99</b>	<b>0.95</b>					

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**

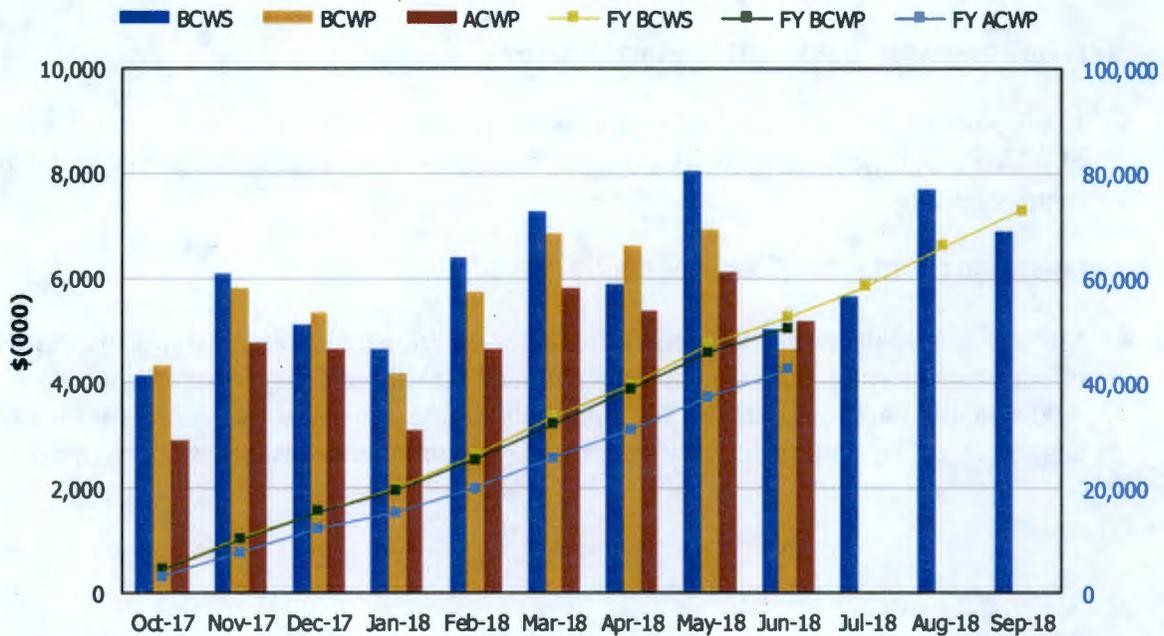
For the retrieval portion see the Consent Decree monthly report for cost and schedule status.

Earned Value Data: Fiscal Year 2018

June-18

**Tank Farms ORP-0014**  
**WBS 5.3 - WFD/Treatment Plng/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					\$58,320				
Aug 2018	\$7,695					\$66,014				
Sep 2018	\$6,895					\$72,910				
CTD	\$485,423	\$480,751	\$439,335	0.99	1.09					

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 June 2018 variances below do not impact TPA milestones.

The **unfavorable** SV of (\$381,400) is primarily due to:

- Realization of planned budgeted cost of work scheduled associated with AP-105 scope, of which a significant amount of work has been performed ahead of schedule and earned in prior periods.

The **unfavorable** CV of (\$507,600) is primarily due to:

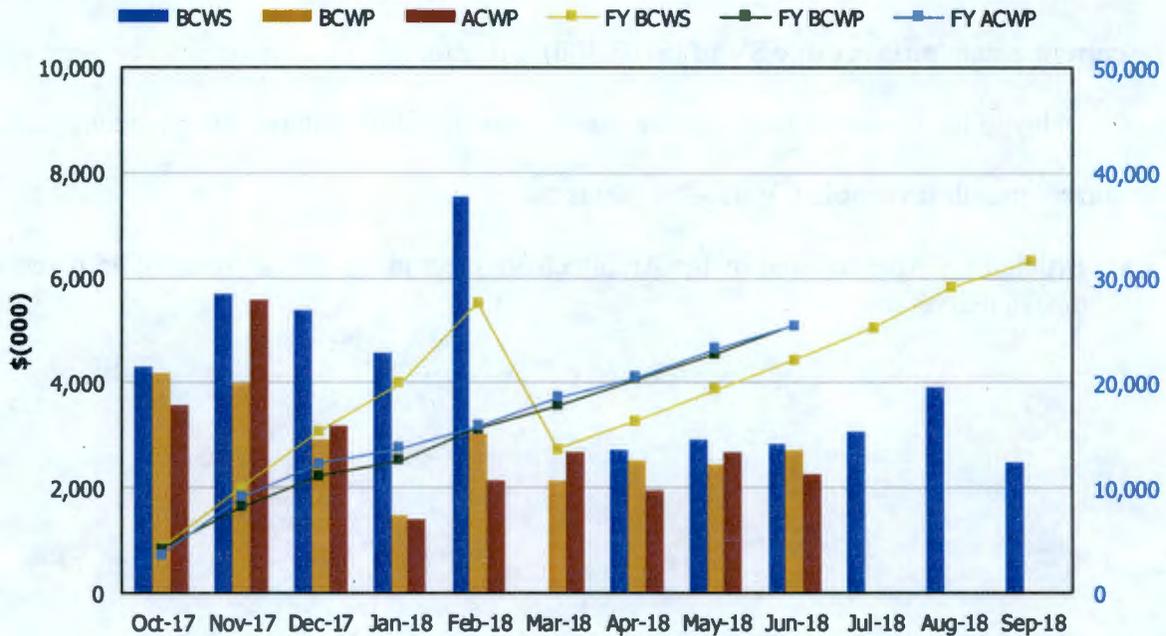
- More resources necessary to support the under-double-shell tank nonvisual inspection effectiveness testing, detection deployment, and tank monitoring requirements. Additionally, Pacific Northwest National Laboratory support of the identification and adaptation of the robotic delivery systems has required more resources and support.

Earned Value Data: Fiscal Year 2018

June-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					\$25,192				
Aug 2018	\$3,911					\$29,103				
Sep 2018	\$2,477					\$31,580				
<b>CTD</b>	<b>\$133,269</b>	<b>\$132,264</b>	<b>\$140,306</b>	<b>0.99</b>	<b>0.94</b>					

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 June 2018 variances below do not impact the TPA milestones.

The current month **unfavorable** SV of (\$103,300) is due to:

- Delay to the geotechnical fieldwork due to unavailability of the drilling subcontractor.

The current month **favorable** CV of \$469,800 is due to:

- Efficiencies were realized by the Architect-Engineer in the development of 45 percent design deliverables.