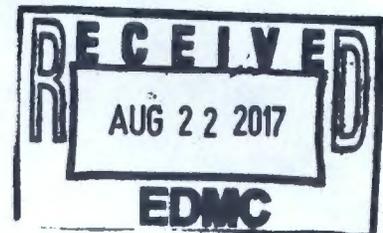

FINAL

Office of River Protection

Tri-Party Agreement

Report

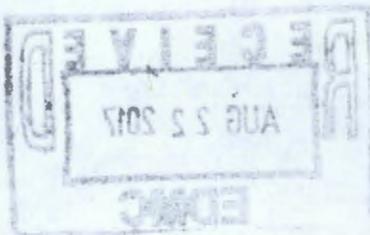
August¹ 2017



¹ The narrative descriptions of progress in this report cover the period from July 01–31, 2017. Earned Value Management System data and descriptions cover the period of June 01–30, 2017.

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Administrative Items/Milestone Status

Milestone	Title	Due Date	Completion Date	Status
Fiscal Year 2015				
M-062-45-T01	Complete Negotiations 6-Mo After Last Issuance of System Plan	04/30/2015		In Abeyance
M-062-45-ZZ	Negotiate a One Time Supplemental Treatment Selection	04/30/2015		In Abeyance
M-062-45-ZZ-A	Convert the M-062-31-T01 Through M-062-34-T01 to Interim Milestones	04/30/2015		In Abeyance
Fiscal Year 2016				
M-047-07	CD-1 for Secondary Liquid Waste Treatment and CR for CD-2 to Ecology	03/31/2016		In Abeyance
M-090-13	CD-1 for Interim Hanford Storage Project and CR for CD-2 to Ecology	03/31/2016		In Abeyance
M-062-31-T01	Complete Final Design & Submit RCRA Part B Permit Mod Request for Enhanced WTP & Supplemental Treatment	04/30/2016		In Abeyance
Fiscal Year 2017				
M-045-82	Submit to Ecology the draft Tier 2 closure plan for WMA-C	05/15/2017	05/15/2017	Complete
M-045-82A	Submit to Ecology the draft Tier 3 closure plans for the C-200 tanks.	05/15/2017	05/15/2017	Complete

Milestone	Title	Due Date	Completion Date	Status
M-045-62	Submit to Ecology the draft Tier 3 closure plans to implement corrective measures.	To be established in accordance with the date identified in the M-045-82 Tier 2 closure plan		On Schedule
M-045-83	Complete the Closure of WMA-C	To be established in accordance with the date identified in the M-045-82 Tier 2 closure plan		On Schedule
M-045-56M	Ecology and DOE Agree, at a Minimum, to Meet Yearly (by July)	07/31/2017	07/11/2017	Complete
M-062-01AI	Submit Semi-Annual Project Compliance Report	07/31/2017	07/31/2017	Complete
M-045-91E2	Provide SST Farms Dome Deflection Surveys Every Two Years	09/30/2017		On Schedule
M-045-92S	DOE and Ecology Will Agree On Locations For Barriers 3 And 4	09/30/2017		On Schedule
Fiscal Year 2018				
M-062-40F	Submit System Plan	10/31/2017		On Schedule
M-062-32-T01	Start Construction of Supplemental Vitrification Treatment Facility and/or WTP Enhancements	04/20/2018		In Abeyance
M-045-92O	Barrier 3 Design/Monitoring Plan Submitted to Ecology	06/30/2018		On Schedule

Milestone	Title	Due Date	Completion Date	Status
M-045-56N	Ecology And DOE Agree, At A Minimum, To Meet Yearly (By July)	07/31/2018		On Schedule
M-045-91I	Provide IQRPE Certification of SSTs Structural Integrity	09/30/2018		On Schedule
M-045-92T	Barrier 3 Design/Monitoring Plan Approved by Ecology	09/30/2018		On Schedule

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

CR = change request.

DOE = U.S. Department of Energy.

Ecology = Washington State Department of Ecology.

IQRPE = independent qualified registered professional engineer.

RCRA = *Resource Conservation and Recovery Act.*

SST = single-shell tank.

WTP = Waste Treatment and Immobilization Plant.

WMA-C = C Tank Farm waste management area.

System Plan

One System Division Director: Jon Peschong

Federal Program Manager: Kaylin Burnett

Significant Past Accomplishments:

- Draft *River Protection Project System Plan, Rev. 8 (System Plan 8)* document completed the first full review cycle with the U.S. Department of Energy, Office of River Protection (ORP); Washington River Protection Solutions LLC (WRPS); Bechtel National Inc.; and Washington State Department of Ecology (Ecology). WRPS completed resolution and incorporation of review comments and provided back to reviewers for verification. Document has started internal routing within WRPS for transmittal to ORP.

Significant Planned Actions in the Next Six Months:

- Continue negotiations of the M-062-45 milestones with intent to utilize information from the System Plan 8 negotiations
- ORP will transmit the System Plan 8 document to Ecology.

Issues:

- None.

Acquisition of New Facilities

Tank Farms Assistant Manager: Glyn Trenchard

Deputy Federal Project Director: Janet Diediker

- M-047-07** **CD-1 for Secondary Liquid Waste Treatment and CR for CD-2 to Ecology**
Due: March 31, 2016
Status: In Abeyance. Decision document 2016-005, *Hanford Federal Facility Agreement and Consent Order Integrity Management Integration Team (IAMIT) Decision / Determination / Action Agreement*, signed August 22, 2016, requires this milestone be addressed with the negotiations supporting M-062-45. 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. Negotiations began on September 8, 2016.
- M-090-00** **Acquire/Modify Facilities for Storage of Immobilized High-Level Waste (IHLW)**
Due: December 31, 2019
Status: In Abeyance. Decision document 2016-005 signed August 22, 2016, requires this milestone be addressed with the negotiations supporting M-062-45. Negotiations began on September 8, 2016.
- M-047-00** **Complete Work Necessary to Provide Facilities for Management of Secondary Waste from the Waste Treatment and Immobilization Plant (WTP)**
Due: December 31, 2022
Status: In Abeyance. Decision document 2016-005 signed August 22, 2016, requires this milestone be addressed with the negotiations supporting M-062-45. Negotiations began on September 8, 2016.

Significant Past Accomplishments:

- None.

Significant Planned Actions in the Next Six Months:

- None.

Issues:

- Negotiations on the items identified in the M-062-45 milestone began on September 8, 2016, in accordance with a decision by the Interagency Management Integration Team.

Supplemental Treatment and Part B Permit Applications

Tank Farms Assistant Manager: Glyn Trenchard

Federal Project Director: Steve Pfaff

- M-062-45-T01** **Every six years, within six months after last revision of the System Plan, negotiate tank waste retrieval sequencing**
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. Negotiations began on September 8, 2016.
- M-062-45-ZZ** **(designation for M-062-45 item 3), 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. 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. Negotiations began on September 8, 2016.
- M-062-31-T01** **Complete final design and submit Resource Conservation and Recovery Act Part B permit modification request**
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. Negotiations began on September 8, 2016.
- M-062-32-T01** **Start construction of supplemental vitrification treatment 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. Negotiations began on September 8, 2016.
- M-062-33-T01** **Complete construction of supplemental vitrification treatment 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. Negotiations began on September 8, 2016.

- M-062-45-XX** **No later than December 31, 2021, the DOE and Ecology shall complete negotiations to establish a mechanism that will apply to resolve future disputes regarding the determinations in M-062-45, paragraphs 4 and 5**
Due: December 31, 2021
Status: On schedule.
- M-062-34-T01** **Complete hot commissioning of supplemental vitrification treatment 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. Negotiations began on September 8, 2016.
- M-062-21** **Annually submit data that demonstrates operation of the WTP**
Due: February 28, 2023
Status: At risk.
- M-062-00** **Complete Pretreatment Processing and Vitrification of High-Level Waste and LAW Tank Wastes**
Due: December 31, 2047
Status: At risk.

Significant Past Accomplishments:

- None.

Significant Planned Actions in the Next Six Months:

- None.

Issues:

- Negotiations on the items identified in the M-062-45 milestone began on September 8, 2016, in accordance with a decision by the Interagency Management Integration Team.

242-A Evaporator Status

Tank Farms Assistant Manager: Glyn Trenchard

Federal Program Manager: Paul Hernandez

The 242-A Evaporator campaign strategy for fiscal year (FY) 2017 and early FY 2018 is depicted in the following table:

Fiscal Year	Campaign No.	Feed Source	Slurry Tank	Comments
FY 2017	EC-06	AY-101	AP-104	242-A Evaporator campaign EC-06 was completed on July 15, 2017. WVR = 210 kgal
FY 2017	EC-07	AW-106	AP-104	242-A Evaporator campaign EC-07 will begin upon completion of 106-AW pump replacement activities and waste transfer from Tank AW-106 to Tank AW-102.
FY 2018	EC-08	Blend of AP-106 AP-107	AP-103	242-A Evaporator campaign EC-08 will require blending of waste in Tank AW-102, sampling, and sample analysis prior to campaign start. This cannot occur until campaign EC-07 is completed.

FY = fiscal year.
kgal = thousand gallons.
WVR = waste volume reduction.

Significant Past Accomplishments:

- Completed 242-A Evaporator Campaign EC-06
- Completed leak testing of the 242-A CA1 vessel
- Completed installation and testing of vessel vent stack extension
- Completed technical safety requirement calibrations
- Replaced PB-2 slurry pump associated relief valves.

Significant Planned Actions in the Next Six Months:

- Establish the future campaign and outage scheduling
- Completion of tracer dye testing on the reboiler prior to the start of the EC-07 evaporator campaign if steam condensate samples can be obtained

- Replace the PB-2 slurry pump
- Initiate Phase II of the ammonia monitor upgrades.

Issues:

- The flammable gas purge air line for the safety instrumented system began to plug slightly during and following the EC-06 Evaporator campaign. Efforts to unplug the line are ongoing.

Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility

Tank Farms Assistant Manager: Glyn Trenchard

Federal Program Manager: Richard Valle

The Liquid Effluent Retention Facility (LERF) liquid levels, inventory, and received waste are shown in the table below. Volumes in this 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 July 27, 2017)	~ 6.88 Mgal	~ 0 Mgal ¹	~ 7.26 Mgal

Waste Received			
AZ-301 Tanker Shipments	-	-	-
MWT-31 and 34 Leachate	~ 28,000 gal	-	-
Other (e.g., 325 Building Totes)	-	-	-
242-A Evaporator Campaigns	~ 380,000 gal	-	-

¹ Basin 43 was placed out-of-service on May 8, 2017.

gal = gallon.

Mgal = million gallons.

MWT = mixed waste trench.

Significant Past Accomplishments:

- Total FY 2017 volume processed (as of July 27, 2017): approximately 3,508,000 gallons.
- Completed reinstallation of new LERF Basin 43 cover.
- Completed repair of the thin film dryer vessel and hopper knocker.
- Initiated processing of remaining concentrate waste from the previous LERF Basin 43 operations through the thin film dryer.

Significant Planned Actions in the Next Six Months:

- Continue maintenance outage at the Effluent Treatment Facility (ETF)
- Initiate LERF Basin 42 waste processing through the ETF.

Issues:

- None.

Tank System Update

Tank Farms Assistant Manager: Glyn Trenchard

Federal Program Manager: Dusty Stewart

Significant Past Accomplishments

Double-Shell Tank (DST) Integrity:

- The Tank Integrity Expert Panel met on June 22 and 23. The panel was briefed on several subjects including the recent inspection of the bottom surface of the interior of the Tank AY-102 primary tank, the investigation of the source of radioactive contamination in the Tank AZ-101 annulus found during ultrasonic testing activities, and efforts to develop inspection capabilities for the primary tank bottom plates. The meeting was attended by WRPS technical and project staff and representatives from ORP, Ecology, State of Oregon, and the Defense Nuclear Facilities Safety Board. A report will be prepared by WRPS once the panel finalizes its comments.

Single-Shell Tank (SST) Integrity:

- WRPS issued the statement of work for SST Integrity Assessment Plan as described in M-045-91I (assessment of structural integrity) as a request for proposal (RFP) and proposals are being evaluated from candidate independent, qualified, registered professional engineer (IQRPE).

Significant Planned Actions in the Next Six Months:

DST Integrity:

- Continuing bi-weekly inspections of Tank AY-102 waste accumulation site.
- Continuing bi-monthly comprehensive inspection of Tank AY-102 annulus.
- Continuing annual comprehensive inspection of AY-101 annulus.
- FY 2017 enhanced annulus visual inspections are in progress. The following tanks will be inspected in FY 2017:
 - 241-AN-102 (completed, report in external clearance process)
 - 241-AN-107 (completed, report in external clearance process)
 - 241-AP-101 (completed, report in external clearance process)
 - 241-AP-107 (completed, report in external clearance process)
 - 241-AW-105 (RPP-RPT-42147, *Double-Shell Tank Integrity Inspection Report for 241-AW Tank Farm*, Rev. 5 issued, approved for public release)
 - 241-AY-101 (RPP-RPT-34311, *Double-Shell Tank Integrity Inspection Report for 241-AY Tank Farm*, Rev. 3 issued, approved for public release)

- 241-AZ-101 (RPP-RPT-34310, *Double-Shell Tank Integrity Inspection Report for 241-AZ Tank Farm*, Rev. 2a issued, approved for public release)
- 241-AZ-102 (RPP-RPT-34310, *Double-Shell Tank Integrity Inspection Report for 241-AZ Tank Farm*, Rev. 2a issued, approved for public release).
- Work planning and execution for FY 2017 ultrasonic testing inspections is ongoing. The following tanks will be inspected in FY 2017:
 - 241-AN-106 (completed; report in external clearance process)
 - 241-SY-101 (floor scans of the secondary liner nearly complete)
 - 241-SY-102 (scanning ready to begin)
 - 241-SY-103 (mobilizing in the field to examine secondary liner annulus floor)
 - 241-AZ-101 (field work halted due to annulus contamination event – delayed until FY 2018)
 - 241-AY-101 (delayed to early FY 2018)
- The corrosion subgroup (Tank Integrity Expert Panel) will be in Columbus, Ohio, on August 23 and 24 to further discuss integrity issues at Hanford.

SST Integrity:

- Work planning for FY 2017 in-tank video inspections is in process. The following tanks are planned for inspection in FY 2017:

- 241-A-104	- 241-SX-110
- 241-A-105	- 241-T-104
- 241-BX-102	- 241-T-105
- 241-BX-107 (complete)	- 241-TX-106
- 241-BY-109 (complete)	- 241-TX-109
- 241-S-104 (complete)	- 241-U-107
- Intrusion mitigation (M-045-56):
 - The POR-006 exhauster at Tank T-111 was restarted on July 12, 2017, and has been operating satisfactorily. The data collection and reporting software is still not working. The volume of water evaporated from Tank T-111 between mid-July 2015 and December 2016 was roughly estimated at 7,100 gallons.

Independent Qualified Registered Professional Engineer Activities

- Preparation of the IQRPE report for the 242-A Evaporator is ongoing. Remaining fieldwork includes the E-A-1 reboiler fluorescein dye 24-hour leak test.
- Work continues on RPP-RPT-61349, *Effluent Treatment Facility Integrity Program Plan*. The plan will support the FY 2019 IQRPE integrity assessment.

- Ultrasonic thickness scanning of ETF tanks is in progress and initial corrosion testing on ETF materials and chemistries is ready to begin.
- Initial planning continues for the IQRPE report for the 219-S facility at the 222-S Laboratory. The Integrity Assessment Plan is going through the approval process.
- The Integrity Assessment Plan for the 2018 SST IQRPE report was completed and approved by WRPS and is in routing for public release concurrence. The RFP package for the Integrity Assessment Plan was issued and proposals have been received from candidate IQRPEs.

Issues:

DST Integrity:

- None.

SST Integrity:

- None.

Single-Shell Tank Integrity Assurance

Tank Farms Assistant Manager: Glyn Trenchard

Federal Program Manager: Dusty Stewart

M-045-91I **Provide to Ecology an Independent, Qualified, Registered Professional Engineer (IQRPE) certification of single-shell tanks (SST) structural integrity for the remainder of the mission, or for such time as the IQRPE believes he/she can reasonably certify.**

Due: September 30, 2018

Status: On schedule.

Significant Past Accomplishments:

- The Integrity Assessment Plan was completed. WRPS issued the statement of work for SST Integrity Assessment Plan as described in M-045-91I (assessment of structural integrity) as an RFP and proposals are being evaluated from candidate IQRPEs.

Significant Planned Actions in the Next Six Months:

- Select IQRPE 2018 SST Integrity Assessment Plan subcontractor and begin assessment.

Issues:

- None.

In-Tank Characterization and Summary

Tank Farms Assistant Manager: Glyn Trenchard

Federal Program Manager: Dusty Stewart

Significant Past Accomplishments:

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

- Completed RPP-RPT-60128, *Derivation of Best-Basis Inventory for Tank 241-BX-109 as of July 1, 2017*, Rev. 0.
- Released RPP-RPT-52174, *Derivation of Best-Basis Inventory for Tank 241-BY-111 as of July 1, 2017*, Rev. 1. Available for public review.
- Completed RPP-RPT-60140, *Derivation of Best-Basis Inventory for Tank 241-BY-104 as of July 1, 2017*, Rev. 0.
- Released RPP-RPT-43493, *Derivation of Best-Basis Inventory for Tank 241-AP-106 as of July 1, 2017*, Rev. 4. Available for public review.
- Completed RPP-PLAN-61428, *Tank Sampling and Analysis Plan for 241-C-105 Hard Heel Retrieval*, Rev. 0.
- Completed RPP-PLAN-61536, *Tank 241-AN-107 Grab Sampling and Analysis Plan*, Rev. 0.
- Released HNF-EP-0182, *Waste Tank Summary Report for Month Ending June 30, 2017*, Rev. 354. Available for public review.
- Completed RPP-RPT-60002, *2016 Quarter 3 Final Report for 241-AP Stack Chemical Emissions*, Rev. 0.
- Completed 241-AP-107 liquid and solids grab sampling on July 14, 2017. Eleven samples were received at the laboratory.

Significant Planned Actions in the Next Six Months:

Tank sampling:

- Tank 241-AY-102 solids grab sampling is planned for August 2017.
- Tank 241-AN-107 grab sampling is planned for August 2017.
- Tank 241-C-105 grab sampling is planned for August 2017.

Best-Basis Inventory updates:

Best-basis inventory updates for the following tanks were completed in July 2017:

- 241-AP-106
- 241-BX-109
- 241-BY-104
- 241-BY-111.

Best-basis inventory updates for the following tanks are currently planned to be completed in August 2017:

- 241-T-111
- 241-AP-102.

Data Quality Objectives updates:

- None.

Issues:

- None.

Single-Shell Tank Closure Program

Tank Farms Assistant Manager: Glyn Trenchard

Federal Program Manager: Jan Bovier

- M-045-59** **Control surface water infiltration pathways as 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, Milestone M-45-58, and implementation of other interim corrective measures)**
Due: To be determined.
Status: To be determined.
- M-045-62** **Submit to Ecology for review, in accordance with HFFACO Action Section 9.2.2, the draft Tier 3 closure plan to implement corrective measures identified in the approved Phase 2 Corrective Measures Implementation Work Plan (CMIP) for WMA-C.**
Due: To be established in accordance with the date identified in the M-45-82 Tier 2 closure plan.
Status: On schedule.
- M-045-83** **Complete the Closure of WMA-C - by completing all closure activities specified in the Tier 2 closure plan not including activities specifically described in the Tier 2 closure plan as requiring integration with closure of other WMAs**
Due: To be established in accordance with the date identified in the M-45-82 Tier 2 closure plan.
Status: On Schedule.
- M-045-56M** **Complete Implementation of Agreed to Interim Measures**
Due: July 28, 2017.
Status: Complete. The annual meeting between ORP and Ecology to discuss the prior FY accomplishments and the next FY proposed interim measures was held on July 11. Action items from the meeting are being tracked by WRPS.
- M-045-92S** **DOE and Ecology agree on locations for Barriers 3 and 4**
Due: September 30, 2017.
Status: On schedule.
- M-045-92O** **Barrier 3 Design and Monitoring Plan submitted to Ecology**
Due: June 30, 2018.
Status: On schedule.

M-045-92T	Barrier 3 Design and Monitoring Plan approved by Ecology Due: September 30, 2018. Status: On schedule.
M-045-92N	Complete construction of Barriers 1 and 2 in SX Farm Due: October 31, 2018. Status: On schedule.
M-045-92Q	Barrier 4 Design and Monitoring Plan submitted to Ecology Due: June 30, 2019. Status: On schedule.
M-045-92U	Barrier 4 Design and Monitoring Plan approved by Ecology Due: September 30, 2019. Status: On schedule.
M-045-92P	Complete construction of Barrier 3 Due: October 31, 2019. Status: On schedule.
M-045-92R	Complete construction of Barrier 4 Due: October 31, 2020. Status: On schedule.
M-045-85	Initiate negotiations to establish HFFACO interim milestones for closure of remaining SST WMAs Due: January 31, 2022. 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 be addressed with the negotiations supporting M-062-45. Negotiations began on September 8, 2016.

Significant Past Accomplishments:

- Working with Ecology on review of the C Tank Farm waste management area (WMA-C) performance assessment.
- Submitted 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*, to complete milestone M-045-61A.
- Submitted the draft Tier 2 Closure Plan for WMA-C, and a draft Tier 3 Closure Plan for the C-200 series tanks to Ecology for review to complete milestones M-045-82 and M-045-82A (via letter 17-TF-0046, "The U.S. Department of Energy, Office of River Protection Submits the *Tier 2 Resource Conservation and Recovery Act Closure Action Plan for Waste Management Area C*, in Completion of *Hanford Federal Facility*

Agreement and Consent Order Milestone M-045-82, and Tier 3 Resource Conservation and Recovery Act Component Closure Activity Plan for 241-C-200 Series Tanks in Completion of Hanford Federal Facility Agreement and Consent Order Milestone M-045-82A,” dated May 17, 2017).

- Released the annual T Tank Farm and TY Tank Farm interim barrier monitoring report covering FY 2016 data.

Significant Planned Activities in the Next Six Months:

- Begin construction of the SX Tank Farm interim surface barriers
- Begin resolution of Ecology’s comments on the *Resource Conservation and Recovery Act* (RCRA) Tier 1, 2, and 3 closure plans
- Begin resolution of Ecology’s comments on the RCRA Facility Investigation Report and Corrective Measures Study report for WMA-C
- Complete discussions on locations for barriers 3 and 4.

Issues:

- Developing path forward for resolving Ecology’s comments on the RCRA Tier 1 Closure Plan was elevated to ORP and Nuclear Waste Program managers in March 2017.

Single-Shell Tank Retrieval Program

Tank Farms Assistant Manager: Glyn Trenchard

Federal Program Manager: Jeff Rambo

M-045-86 **Submit retrieval data report (RDR) to Ecology for 19 tanks retrieved**
Due: To be determined (12 months after retrieval certification).
Status: Ongoing, retrieval data report submitted when completed.

M-045-70 **Complete waste retrieval from all remaining 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. Negotiations began on September 8, 2016

Significant Past Accomplishments:

- Refer to Consent Decree monthly report for retrieval accomplishments.

Significant Planned Activities in the Next Six Months:

- The Tank C-111 retrieval data report is expected to be ready in September 2017.
- Refer to Consent Decree monthly report for planned activities.

Issues:

- Refer to Consent Decree monthly report for retrieval issues.

Tank Operations Contract Overview

June-17										
	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC	EAC	VAC
CM	58,859	61,714	63,685	2,855	(1,971)	1.05	0.97			
FYTD	451,353	437,710	435,538	(13,643)	2,172	0.97	1.00	634,662		
CTD	3,907,302	3,872,845	3,844,401	(34,457)	28,444	0.99	1.01	4,809,158	4,843,989	(34,832)

ACWP	=	actual cost of work performed.	CV	=	cost variance.
BAC	=	budget at completion.	EAC	=	estimate at completion.
BCWP	=	budgeted cost of work performed.	FYTD	=	fiscal year to date.
BCWS	=	budgeted cost of work scheduled.	SPI	=	schedule performance index.
CM	=	current month.	SV	=	schedule variance.
CPI	=	cost performance index.	VAC	=	variance at completion.
CTD	=	contract to date.			

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 Tri-Party Agreement (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 \$10K of work was planned to-date, \$8K was reported as being performed (earned), at an actual cost of \$9K. This work would be reported as being \$2K behind schedule [a negative or unfavorable SV: $\$8K - \$10K = (\$2K)$], and has cost \$1K more [a negative or unfavorable CV: $\$8K - \$9K = (\$1K)$] 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.

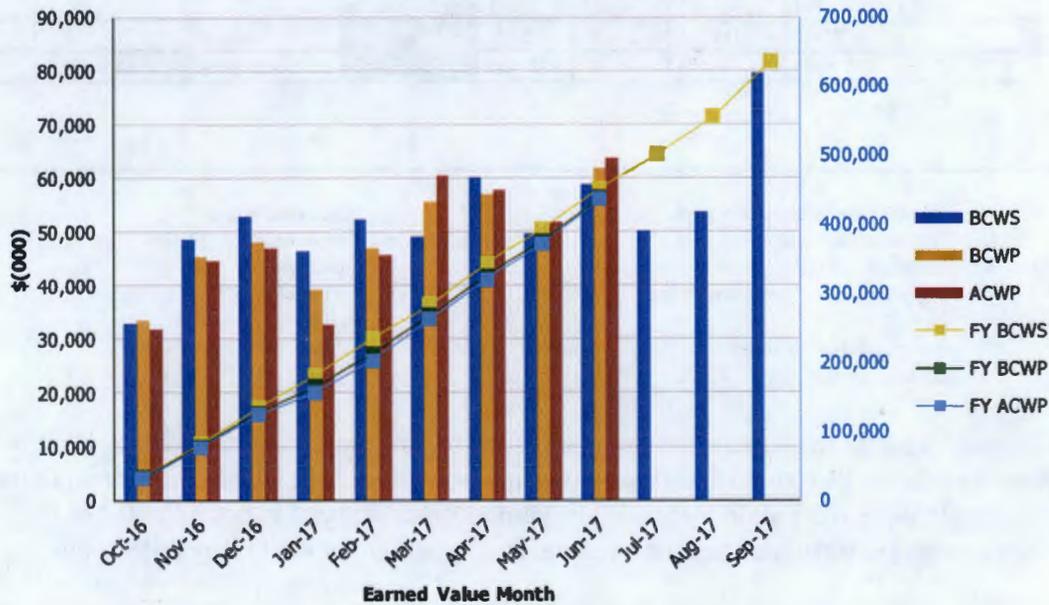
The SV and CV are reported for each monthly period, fiscal year to-date, as well as for the contract-to-date value. The monthly variances can fluctuate significantly (for reasons noted earlier), so the FY or contract-to-date report provides a better indicator of the overall project completion status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

Earned Value Data: Fiscal Year 2017

June-17

Tank Farms ORP-0014

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2016	\$33,051	\$33,501	\$31,798	1.01	1.05	\$33,051	\$33,501	\$31,798	1.01	1.05
Nov 2016	\$48,628	\$45,386	\$44,614	0.93	1.02	\$81,679	\$78,887	\$76,412	0.97	1.03
Dec 2016	\$52,841	\$47,972	\$46,833	0.91	1.02	\$134,520	\$126,859	\$123,246	0.94	1.03
Jan 2017	\$46,477	\$39,027	\$32,764	0.84	1.19	\$180,997	\$165,886	\$156,009	0.92	1.06
Feb 2017	\$52,366	\$47,088	\$45,690	0.90	1.03	\$233,363	\$212,974	\$201,699	0.91	1.06
Mar 2017	\$49,127	\$55,701	\$60,510	1.13	0.92	\$282,490	\$268,674	\$262,209	0.95	1.02
Apr 2017	\$60,228	\$56,852	\$57,746	0.94	0.98	\$342,718	\$325,526	\$319,955	0.95	1.02
May 2017	\$49,776	\$50,468	\$51,897	1.01	0.97	\$392,494	\$375,995	\$371,853	0.96	1.01
Jun 2017	\$58,859	\$61,714	\$63,685	1.05	0.97	\$451,353	\$437,709	\$435,538	0.97	1.00
Jul 2017	\$50,129					\$501,482				
Aug 2017	\$53,597					\$555,079				
Sep 2017	\$79,583					\$634,662				
CTD	\$3,907,302	\$3,872,845	\$3,844,401	0.99	1.01					

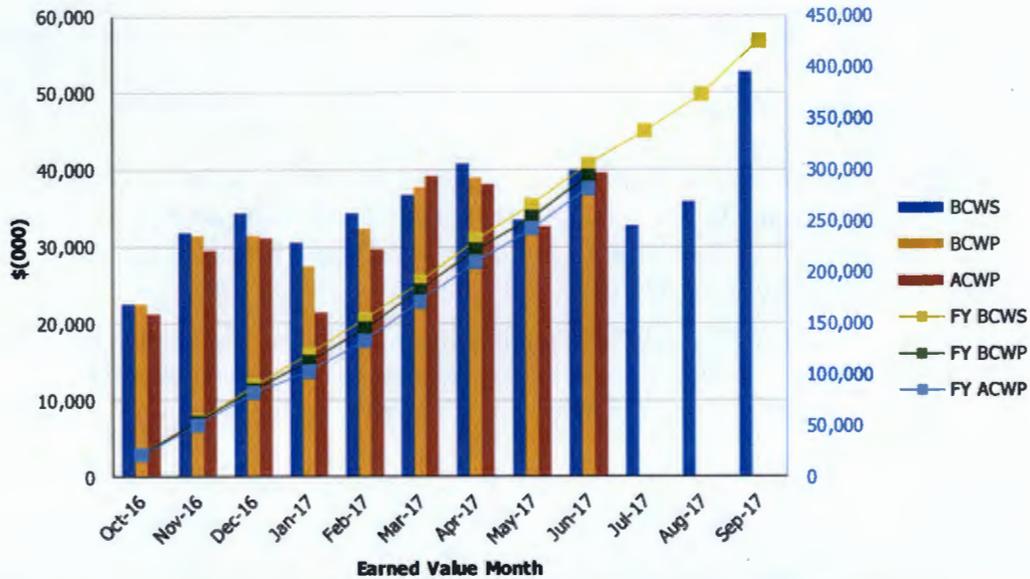
- ACWP = actual cost of work performed.
- BCWP = budgeted cost of work performed.
- BCWS = budgeted cost of work scheduled.
- CPI = cost performance index.
- CM = current month.
- CTD = contract to date.
- FY = fiscal year.
- SPI = schedule performance index.

Earned Value Data: Fiscal Year 2017

June-17

**Tank Farms ORP-0014
Base Operations 5.01**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2016	\$22,507	\$22,546	\$21,216	1.00	1.06	\$22,507	\$22,546	\$21,216	1.00	1.06
Nov 2016	\$31,885	\$31,496	\$29,527	0.99	1.07	\$54,392	\$54,042	\$50,743	0.99	1.07
Dec 2016	\$34,394	\$31,547	\$31,032	0.92	1.02	\$88,786	\$85,589	\$81,775	0.96	1.05
Jan 2017	\$30,657	\$27,462	\$21,370	0.90	1.29	\$119,443	\$113,051	\$103,146	0.95	1.10
Feb 2017	\$34,475	\$32,418	\$29,588	0.94	1.10	\$153,918	\$145,468	\$132,734	0.95	1.10
Mar 2017	\$36,780	\$37,769	\$39,127	1.03	0.97	\$190,698	\$183,237	\$171,861	0.96	1.07
Apr 2017	\$40,813	\$38,964	\$38,001	0.95	1.03	\$231,511	\$222,201	\$209,862	0.96	1.06
May 2017	\$33,508	\$31,770	\$32,519	0.95	0.98	\$265,020	\$253,971	\$242,381	0.96	1.05
Jun 2017	\$39,894	\$40,552	\$39,497	1.02	1.03	\$304,914	\$294,522	\$281,878	0.97	1.04
Jul 2017	\$32,774					\$337,688				
Aug 2017	\$35,832					\$373,520				
Sep 2017	\$52,757					\$426,277				

CTD	\$2,603,592	\$2,586,846	\$2,549,303	0.99	1.01
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- ACWP = actual cost of work performed.
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- CPI = cost performance index.
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Tank Farms Assistant Manager: Glyn Trenchard

Federal Project Director: Jeremy Johnson

Base Operations and Tank Farm Projects (5.01)

The June 2017 variances below do not impact TPA milestones.

The **favorable** SV of \$658K is primarily due to:

- Schedule recovery from previous periods of the Defense Nuclear Facilities Safety Board 2012 safety-significant primary tank ventilation airflow instrumentation. Completed all of the field installations of the instrumentation in the AP Tank Farm and the mechanical installations in the AN Tank Farm.
- Schedule recovery for Tank AW-106 pump removal activities. Completed installing the pit cameras and tank cameras, prepping the pump for removal, removing the Tank AW-106 pump, clearing the pump column, removing the hole punch equipment, and cleaning the pit.

The **favorable** CV of \$1,055K is primarily due to:

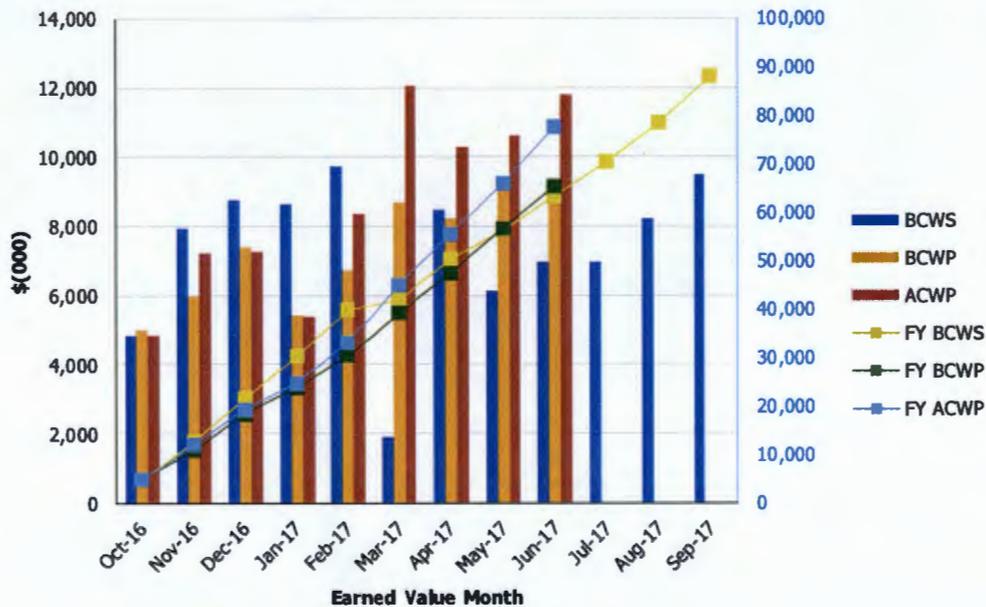
- Efficiencies gained by utilization of a single team to execute several tasks in parallel. The installation of Defense Nuclear Facilities Safety Board 2012 safety-significant primary tank ventilation airflow instrumentation required less resources than originally planned.

Earned Value Data: Fiscal Year 2017

June-17

**Tank Farms ORP-0014
Retrieve and Close SST's 5.02**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2016	\$4,816	\$4,996	\$4,822	1.04	1.04	\$4,816	\$4,996	\$4,822	1.04	1.04
Nov 2016	\$7,924	\$5,969	\$7,241	0.75	0.82	\$12,740	\$10,965	\$12,063	0.86	0.91
Dec 2016	\$8,772	\$7,401	\$7,262	0.84	1.02	\$21,512	\$18,365	\$19,325	0.85	0.95
Jan 2017	\$8,646	\$5,422	\$5,360	0.63	1.01	\$30,158	\$23,787	\$24,685	0.79	0.96
Feb 2017	\$9,716	\$6,707	\$8,341	0.69	0.80	\$39,874	\$30,495	\$33,026	0.76	0.92
Mar 2017	\$1,903	\$8,675	\$12,056	4.56	0.72	\$41,777	\$39,170	\$45,082	0.94	0.87
Apr 2017	\$8,477	\$8,214	\$10,268	0.97	0.80	\$50,254	\$47,384	\$55,350	0.94	0.86
May 2017	\$6,110	\$9,406	\$10,604	1.54	0.89	\$56,364	\$56,790	\$65,953	1.01	0.86
Jun 2017	\$6,982	\$8,684	\$11,807	1.24	0.74	\$63,345	\$65,474	\$77,761	1.03	0.84
Jul 2017	\$6,976					\$70,321				
Aug 2017	\$8,207					\$78,528				
Sep 2017	\$9,497					\$88,025				
CTD	\$772,513	\$763,523	\$798,435	0.99	0.96					

ACWP = actual cost of work performed.
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 CPI = cost performance index.

CM = current month.
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Tank Farms Assistant Manager: Glyn Trenchard

Federal Program Manager: Jeff Rambo

Retrieve and Close Single-Shell Tanks (5.02)

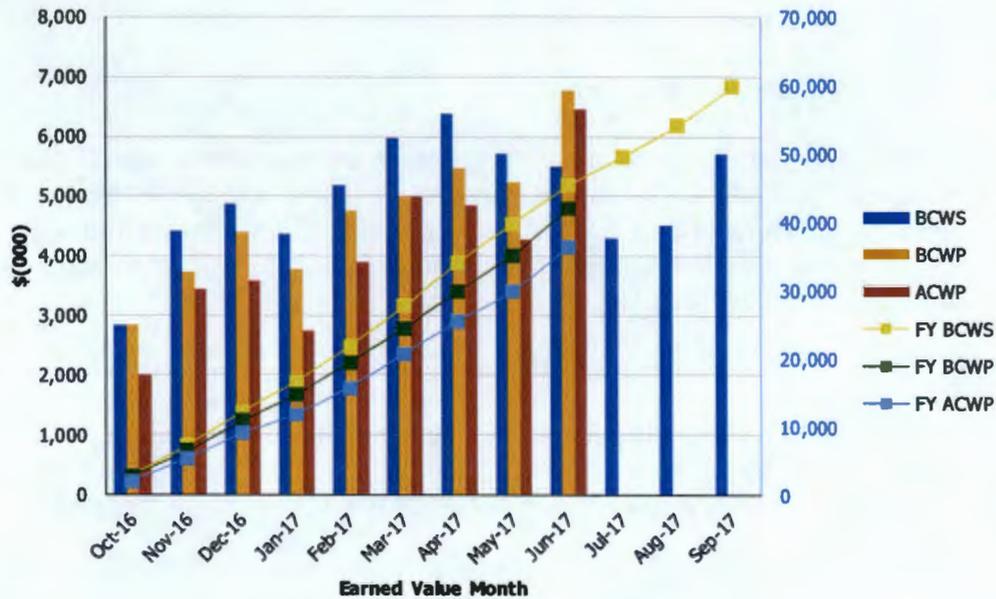
Refer to the Consent Decree monthly report for cost and schedule status.

Earned Value Data: Fiscal Year 2017

June-17

Tank Farms ORP-0014
Waste Feed Delivery/Treatment/Double-Shell Tank Retrieval Closure 5.03

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2016	\$2,840	\$2,829	\$1,990	1.00	1.42	\$2,840	\$2,829	\$1,990	1.00	1.42
Nov 2016	\$4,428	\$3,728	\$3,446	0.84	1.08	\$7,267	\$6,557	\$5,436	0.90	1.21
Dec 2016	\$4,878	\$4,404	\$3,589	0.90	1.23	\$12,146	\$10,961	\$9,026	0.90	1.21
Jan 2017	\$4,371	\$3,773	\$2,737	0.86	1.38	\$16,516	\$14,734	\$11,762	0.89	1.25
Feb 2017	\$5,176	\$4,743	\$3,893	0.92	1.22	\$21,692	\$19,477	\$15,656	0.90	1.24
Mar 2017	\$5,981	\$4,992	\$4,999	0.83	1.00	\$27,673	\$24,469	\$20,654	0.88	1.18
Apr 2017	\$6,391	\$5,473	\$4,858	0.86	1.13	\$34,064	\$29,942	\$25,512	0.88	1.17
May 2017	\$5,713	\$5,236	\$4,285	0.92	1.22	\$39,776	\$35,178	\$29,798	0.88	1.18
Jun 2017	\$5,506	\$6,773	\$6,463	1.23	1.05	\$45,282	\$41,950	\$36,261	0.93	1.16
Jul 2017	\$4,292					\$49,574				
Aug 2017	\$4,526					\$54,100				
Sep 2017	\$5,702					\$59,802				
CTD	\$417,667	\$412,970	\$381,115	0.99	1.08					

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- SPI = schedule performance index.

One System Division Director: Jon Peschong

Federal Program Manager: Kaylin Burnett

Waste Feed Delivery/Treatment (5.03)

The June 2017 variances below do not impact TPA milestones.

The **favorable** SV of \$1,267K is primarily due to:

- The completion of the vendor/equipment preparation and the effectiveness testing associated with the under DST non-visual inspection testing. The current period favorable SV offsets the unfavorable SVs reported in prior periods. Additional performance recovery from earlier periods in the Tank AP-107 and Tank AP-105 upgrades projects also contributed to a favorable SV.

The **favorable** CV of \$310K is primarily due to:

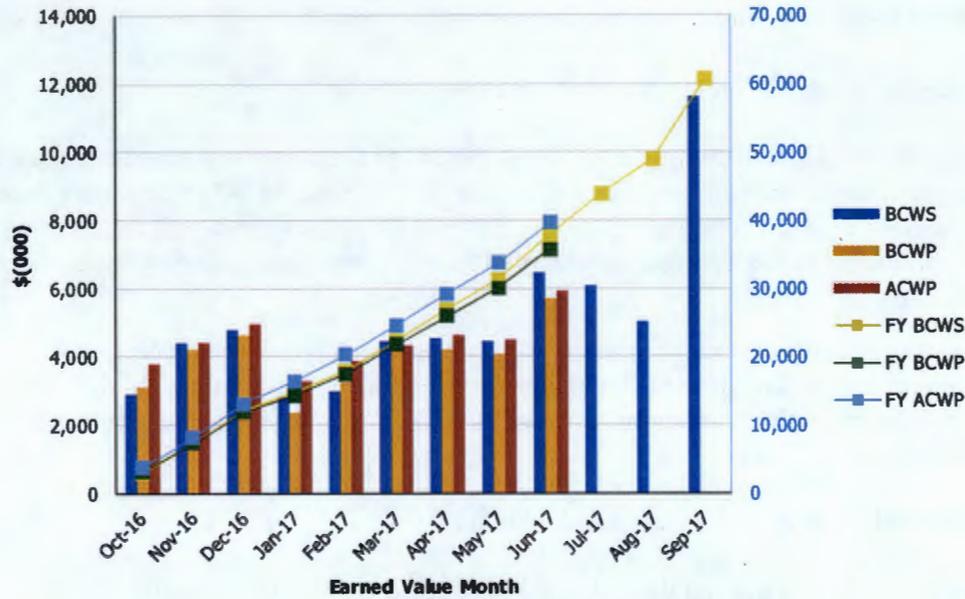
- Less expenses were incurred than planned in the immobilized low-activity waste transporter project, the Integrated Disposal Facility glass testing project, and vitreous state laboratory's effort to prepare the immobilized low-activity waste glass and associated analysis.

Earned Value Data: Fiscal Year 2017

June-17

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

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2016	\$2,889	\$3,131	\$3,770	1.08	0.83	\$2,889	\$3,131	\$3,770	1.08	0.83
Nov 2016	\$4,391	\$4,193	\$4,400	0.95	0.95	\$7,280	\$7,324	\$8,170	1.01	0.90
Dec 2016	\$4,796	\$4,620	\$4,950	0.96	0.93	\$12,076	\$11,944	\$13,119	0.99	0.91
Jan 2017	\$2,804	\$2,370	\$3,297	0.85	0.72	\$14,880	\$14,314	\$16,417	0.96	0.87
Feb 2017	\$2,999	\$3,220	\$3,867	1.07	0.83	\$17,879	\$17,534	\$20,284	0.98	0.86
Mar 2017	\$4,462	\$4,265	\$4,328	0.96	0.99	\$22,342	\$21,799	\$24,612	0.98	0.89
Apr 2017	\$4,547	\$4,201	\$4,620	0.92	0.91	\$26,889	\$26,000	\$29,232	0.97	0.89
May 2017	\$4,446	\$4,056	\$4,490	0.91	0.90	\$31,335	\$30,056	\$33,721	0.96	0.89
Jun 2017	\$6,477	\$5,705	\$5,917	0.88	0.96	\$37,812	\$35,762	\$39,639	0.95	0.90
Jul 2017	\$6,088					\$43,900				
Aug 2017	\$5,031					\$48,931				
Sep 2017	\$11,627					\$60,558				
CTD	\$93,421	\$89,396	\$96,387	0.96	0.93					

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- FY = fiscal year.
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Tank Farms Assistant Manager: Glyn Trenchard

Deputy Federal Project Director: Janet Diediker

Treat Waste (5.5)

The June 2017 variances below do not impact the TPA milestones.

The **unfavorable SV** of (\$772K) is primarily due to:

- The extended effort to complete the development of the balance of plant and reagent systems three-dimension model and the effort to complete the 60 percent part B design review have delayed progress of the downstream 90 percent structural engineering calculations. This has delayed the completion of affected drawings and the model by approximately 6 weeks.
- There were delays in reviewing the CD-3A design package. The subcontractor has broken up the package into multiple submittals, which extended the total duration for the delay. Reviews will conclude in July and the CD-3A package is on schedule for submittal by July 31, 2017.

The **unfavorable CV** of (\$212K) is primarily due to:

- More effort being required than planned to respond to 60 percent design review comments for the weather enclosure and concrete calculations.
- Three-Dimensional modeling activities required more effort than planned to finalize interconnecting pipework and to model pipe supports ahead of the July 2017 forecasted model freeze. Comments are addressed and resolved during the model freeze period. The unfavorable variance was further impacted by use of incorrect charge codes; 150 hours will be corrected to Balance of Plant Modeling and 430 hours will be corrected to Drawing Production.