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**FINAL**

Office of River Protection  
Tri-Party Agreement  
Monthly Summary Report  
September 2015



**Office of River Protection (ORP)  
Tri-Party Agreement (TPA) Milestone Review  
September 2015 (Monthly Summary Report)**

**Project Earned Value Management System reflects July 2015 information**

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<b>Administrative Items/Milestone Status</b>				
<b>Milestone</b>	<b>Title</b>	<b>Due Date</b>	<b>Completion Date</b>	<b>Status</b>
<b>Fiscal Year 2015</b>				
M-062-40D	Submit System Plan	10/31/2014	10/31/2014	Completed
M-062-40ZZ	Submit One Time Tank Waste Supp Treatment Technologies Report	10/31/2014	Deleted on 08/12/2014	Deleted
M-045-91G-T03	Provide AOR Final Doc. for SSTs on 1,000,000 Gallon Tanks	10/31/2014	07/07/2014	Completed
M-045-91F-T04	Provide Report on 100-Series SSTs as having Leaked in RPP-32681	12/26/2014	11/14/2014	Completed
M-045-61	Phase 2 RCRA Facility Investigation	12/31/2014	12/23/2014	Completed
M-045-86H	Submit Retrieval Data Report to Ecology for C-110	01/29/2015	08/06/2014	Completed
M-045-91G-T04	Provide AOR Final Doc. for SSTs on 55,000 Gallon Tanks	01/30/2015	12/03/2014	Completed
M-045-91B-T01	Provide Ecology report on the Concrete Core from Tank A-106 or alt	01/31/2015	12/03/2014	Completed
M-062-01AD	Submit Semi-Annual Compliance Report	01/31/2015	01/29/2015	Completed
M-045-91F-T02	Provide Report of Liner Failures for SSTs	03/31/2015	03/16/2015	Completed
M-062-45-T01	Comp. Neg's 6-Mo After Last Issuance of System Plan	04/30/2015		In Dispute
M-062-45-ZZ	Negotiate a One Time Supplemental Treatment Selection	04/30/2015		In Dispute
M-062-45-ZZ-A	Convert M-062-31-T01 Thru M-062-34-T01 to Interim Milestones	04/30/2015		In Dispute
M-045-91F	Provide Summary Conclusions Report on Leak Integrity	06/30/2015	04/29/2015	Completed
M-045-62	Phase 2 Corrective Measures Implementation Work Plan For WMA-C	TBD		On Schedule
M-045-92O	Barrier 3 Design/Monitoring Approval From Ecology	06/30/2015		In Dispute
M-045-91G	Provide Summary Conclusions Report of AOR for SSTs	07/28/2015	06/17/2015	Completed
M-045-56K	Ecology and DOE Agree, at a Minimum, to Meet Yearly (By July)	07/31/2015	07/15/2015	Completed
M-045-91H	Submit Change Pkg (if necessary) to est. Additional Milestones	07/31/2015	03/15/2015	Completed
M-062-01AE	Submit Semi-Annual Compliance Report	07/31/2015	07/29/2015	Completed
M-045-82	Submit Comp. Permit Modification Request for Tiers 1,2,3	09/30/2015		In Dispute

M-045-91E1	Provide SST Farms Dome Deflection Surveys Every Two Years	09/30/2015		On Schedule
<b>Fiscal Year 2016</b>				
M-045-92N	Construct Barriers 1 and 2 in 241-SX Farm	10/31/2015		In Dispute
M-062-01AF	Submit Semi-Annual Project Compliance Report	01/31/2016		On Schedule
M-047-07	CD-1 for Secondary Liquid Waste Treatment and CR for CD-2 to ECY	03/31/2016		To Be Missed
M-090-13	CD-1 for Interim Hanford Storage Project and CR for CD-2 to ECY	03/31/2016		To Be Missed
M-062-31-T01	Comp. Final Design & Submit RCRA Part B Permit Mod Request for Enhanced WTP & Supplemental Treatment	04/30/2016		On Schedule
M-045-92Q	Submit Barrier 4 Design/Monitoring Plan	06/30/2016		In Dispute
M-062-01AG	Submit Semi-Annual Project Compliance Report	07/31/2016		On Schedule
M-045-56L	Ecology And DOE A Ecology And DOE Agree, At A Minimum, To Meet Yearly (By July)	07/31/2016		On Schedule

AOR = Analyses of Record.

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

CR = change request.

DOE = U.S. Department of Energy.

Ecology = Washington State Department of Ecology.

RCRA = Resource Conservation and Recovery Act.

SST = single-shell tank.

TBD = to be determined.

WMA-C = Waste Management Area C.

## System Plan

**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 Dispute.**

### Significant Past Accomplishments:

- On October 24, 2013, Washington State Department of Ecology (Ecology) and U.S. Department of Energy (DOE), Office of River Protection (ORP) signed the Tri-Party Agreement (TPA) Change Control Form M-62-13-02, moving out the due date for this embedded milestone from October 31, 2013 to December 15, 2013, for selection of three, or more, scenarios to be modeled in the System Plan.
- Ecology has defined five scenarios to be analyzed in System Plan 7. Washington River Protection Solutions LLC (WRPS) has included a description of each scenario in the Selected Scenarios for the River Protection Project System Plan, Rev. 7 document released to ORP on December 4, 2013. See joint ORP and Ecology letter 13-TPD-0070, dated December 12, 2013, for completion and description of M-062-40C scenarios.
- Detailed assumption review was completed, and has been approved by Ecology.

4. On February 11, 2014, ORP transmitted a letter (14-TPD-0003) to WRPS in response to letter WRPS-1400313 to approve the use of Ecology's Appendix B, "Key Assumptions and Success Criteria," for ORP 11242, *River Protection Project System Plan, Rev. 7*. (System Plan 7)
5. On February 13, 2014 Ecology presented the five selected scenarios to the Hanford Advisory Board Tank Waste Committee.
6. Ecology, ORP and WRPS reviewed and provided comments for Sections 1.0 and 2.0 of System Plan 7 during the week of February 17, 2014.
7. Ecology, ORP and WRPS reviewed and provided comments for Section 3.0 of the System Plan 7 during the week of March 21, 2014.
8. Ecology, ORP and WRPS reviewed and provided comments for Appendix C of the System Plan 7 during the week of April 1, 2014.
9. During the week of April 28, 2014, WRPS and ORP facilitated meetings for Ecology to define detail spending assumptions for Case 5.
10. On July 29, 2014, WRPS Case authors presented the results of the five cases to Ecology and DOE-ORP.
11. System Plan 7 was reviewed, all comments resolved, and comments incorporated into the document.
12. On October 31, 2014, ORP transmitted System Plan 7 to Ecology.
13. ORP received Ecology's January 14, 2015 transmitted letter 15-NWP-004, regarding Ecology's review of System Plan 7.
14. ORP met with Ecology at the Tank Farms TPA and Consent Decree (CD) monthly status meeting on February 25, 2015.
15. ORP transmitted Letter 15-WSC-0027, ORP's response to Ecology's letter 15-NWP-004 to Ecology on June 2, 2015. ORP's letter provided clarification and several attachments of additional information requested in Ecology's January 14, 2015, letter.

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

None.

**Issues:**

None.

### **Acquisition of New Facilities**

**M-090-13, Submit Critical Decision-1 for Interim Hanford Storage Project and TPA Change Request for CD-2 to Ecology**, Due: March 31, 2016, Status: To be missed. Created by TPA Change Control Form M-90-12-02, signed by ORP and Ecology on November 19, 2012, to "Submit to Ecology, a Conceptual Design Report Package (Critical Decision-1) for the Interim Hanford Storage Project (storage of the first two years of Hanford Site Immobilized High-Level

Waste from WTP operations) and a TPA Change Request (in accordance with TPA Action Plan Section 12.0) to submit to Ecology, a Preliminary Design Report package (Critical Decision-2).”

**M-090-00, Acquire/Modify Facilities for Storage of Immobilized High-Level Waste (IHLW),** Due: December 31, 2019, Status: On schedule.

**M-047-07, Submit CD-1 for Secondary Liquid Waste Treatment and Change Request (CR) for CD-2 to Ecology,** Due: March 31, 2016, Status: To be missed. Created by TPA Change Control Form M-47-12-02, signed by ORP and Ecology on November 19, 2012, to “Submit to Ecology, a Conceptual Design Report package (Critical Decision-1) for the Secondary Liquid Waste Treatment Project and a TPA Change Request (in accordance with TPA Action Plan Section 12.0) to submit to Ecology, a Preliminary Design Report package (Critical Decision-2).”

**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: On schedule.

**Significant Past Accomplishments:**

ORP and Ecology signed TPA Change Packages M-47-14-01 and M-90-14-01 on July 14, 2014 moving the due date for M-047-07 and M-090-13 to March 31, 2016.

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

None.

**Issues:**

None.

## **Supplemental Treatment and Part B Permit Applications**

**M-062-45ZZ (designation for M-062-45 item #3), Negotiate a one-time supplemental treatment selection,** Due: April 30, 2015, Status: In dispute.

**M-062-45ZZ-A, Convert M-062-31-T01 through M-062-34-T01 to Interim Milestones,** Due: April 30, 2015, Status: In dispute.

**M-062-31-T01, Complete final design and submit Resource Conservation and Recovery Act Part B permit modification request,** Due: April 30, 2016, Status: On schedule.

**M-062-32-T01, Start construction of supplemental vitrification treatment facility and/or WTP enhancements,** Due: April 30, 2018, Status: On schedule.

**M-062-33-T01, Complete construction of supplemental vitrification treatment facility and/or WTP enhancements,** Due: April 30, 2021, Status: On schedule.

**M-062-45XX, 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: On schedule.

**M-062-21, Annually submit data that demonstrates operation of the WTP**, Due: February 28, 2023, Status: On schedule.

**M-062-00, Complete Pretreatment Processing and Vitrification of High-Level Waste and LAW Tank Wastes**, Due: December 31, 2047, Status: On schedule.

#### **Significant Past Accomplishments:**

\*Per ORP letter 14-TF-0052, signed by ORP on May 6, 2014 and provided to Ecology on May 7, 2014, ORP documented the ORP/Ecology discussions for the *One-Time Hanford Tank Waste Supplemental Treatment Technologies Report* and that ORP does not intend to submit this report. ORP received Ecology's response letter, 14-NWP-110, on May 29, 2014. ORP letter 14-TF-0088, dated and delivered to Ecology on July 31, 2014, submitted a signed TPA change package to delete the requirement of the *One-Time Hanford Tank Waste Supplemental Treatment Technologies Report* from TPA Milestone M-062-40. Ecology signed TPA Change Package M-62-14-01 deleting M-062-40ZZ on August 12, 2014.

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

None.

#### **Issues:**

On January 30, 2015, ORP provided Ecology Change Control Form M-62-14-02, which proposed adding language under TPA Milestone M-062-45 to defer negotiations required under M-062-45. Ecology did not respond with the 14 day review period that ended February 13, 2015 which is deemed disapproval in accordance with the TPA. In letter 15-TF-0014, dated February 20, 2015, ORP initiated a dispute resolution. Ecology provided a justification for their disapproval on March 12, 2015 via letter 15-NWP-036. Ecology and ORP signed an extension of the dispute resolution period at the TPA project manager level until October 22, 2015.

## **242-A Evaporator Status**

**(previously reported under Milestone M-48, which has been closed out)**

#### **242-A Evaporator Status:**

The 242-A Evaporator campaign strategy for fiscal year (FY) 2010 through FY 2015 depicted in the following table has been updated based on ORP-11242, *River Protection Project Plan* and ongoing schedule integration efforts.

<b>Fiscal Year</b>	<b>Campaign No.</b>	<b>Feed Source</b>	<b>Slurry Tank</b>	<b>Comments</b>
FY 2010	10-01	AW-106	AW-106	Campaigns 10-01/10-02 were performed back-to back starting in late August and completing in early October 2010. Campaign 10-02 was an acceleration of previously planned Campaign 11-01.
FY 2010	10-02	AW-106	AW-106	
FY 2011	N/A	N/A	N/A	No campaign conducted in FY 2011 due to ongoing 242-A Evaporator and tank farm facility life extension and American Recovery and Reinvestment Act funded upgrades.
FY 2012	N/A	N/A	N/A	No campaign conducted in FY 2012 due to ongoing 242-A Evaporator and tank farm facility upgrades and revision to the 242-A Evaporator Documented Safety Analysis.
FY 2013	N/A	N/A	N/A	No campaigns to be conducted in FY 2013 due to ongoing 242 A Evaporator and tank farm facility upgrades and revision to the 242-A Evaporator Documented Safety Analysis.
FY 2014	13-01	AP-107	AP-107	Campaign started September 9, 2014. Campaign completed on October 9, 2014.
FY 2015	EC-01	AP-103 AP-104	AP-107	Campaign and flush activities completed on June 21, 2015.
FY 2015	EC-02	AZ-102	AP-103	Completed July 21, 2015.
FY 2015	EC-03	AZ-102	AP-103	Estimated to begin September 2015.
FY 2016	EC-04	AW-106	AP-103	Estimated to begin February/March 2016.

FY = fiscal year.

N/A = not applicable.

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

The EC-02 campaign began July 10, 2015 and completed July 21, 2015. Waste Volume Reduction was 384,000 including all flush activities. Steam system safety instrumental systems (SIS) upgrades began after the completion of EC-02 campaign and modification work is nearing completion. Testing of the new system initiated on August 24, 2015 and will continue over the next few weeks prior to the EC-03 campaign initiating. EC-03 campaign is expected to begin September 18, 2015.

### **Issues:**

None.

## Double-Shell Tank System Update

### Ultrasonic Testing Inspection

- Ultrasonic testing for Tank AN-103 is complete and inspection of the annulus floor has indicated thinning. The results have been documented in RPP-RPT-58776, *Ultrasonic Inspection Results for Double-Shell Tank 241-AN-103 – FY2015*, Rev 0.
- Ultrasonic inspection operations are ongoing for tank AN-104. Initial scans have indicated some thinning along the annulus floor. To further evaluate the condition, additional scanning of the annulus floor is currently being performed and the ultrasonic testing (UT) work is being completed by ITIVS of South Carolina.

### Visual Inspection

- Continuing bi-weekly inspections of AY-102 waste accumulation sites.
- Continuing bi-monthly comprehensive inspection of AY-102 annulus.
- Annulus visual inspections are completed in Tanks AP-102, AP-103, AP-104, AP-105, AP-106, AP-108 AW-101, AW-102, and AW-104. This completes the FY 2015 annulus inspections for the double-shell tanks (DSTs).

## Single-Shell Tank Integrity Assurance

**M-045-91I, Provide to Ecology an Independent, Qualified, Registered Professional Engineer (IQRPE) certification of single-shell tanks (SSTs) 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:**

Completion of M-045-91H. The work completed to date under M-045-91F and M-045-91G does not necessitate the creation of any additional milestones. In accordance with a March 25, 2015 meeting with Ecology, ORP considers M-045-91H complete and does not intend to submit a change package for the creation of any additional milestones for SST integrity.

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

Begin planning for the SST Integrity Assessment by an IQRPE (M-045-91I).

### **Issues:**

None.

## In Tank Characterization and Summary

For the period from August 1 through August 31, 2015:

**Accomplishments:**

- Completed RPP-RPT-58697, *Derivation of Best-Basis Inventory for Tank 241-TX-106 as of July 1, 2015*, Rev 0.
- Completed RPP-RPT-58695, *Derivation of Best-Basis Inventory for Tank 241-TX-102 as of July 1, 2015*, Rev 0.
- Completed RPP-RPT-46772, *Derivation of Best-Basis Inventory for Tank 241-AN-107 as of July 1, 2015*, Rev 2.
- Completed RPP-RPT-58664, *Derivation of Best-Basis Inventory for Tank 241-SX-102 as of April 1, 2015*, Rev 0.
- Completed RPP-RPT-54440, *Derivation of Best-Basis Inventory for Tank 241-C-101 as of April 23, 2015*, Rev 4.
- Completed RPP-RPT-58805, *Final Report for Tank 241-C-101 Post-Retrieval Waste Solid Samples in Support of Tank Closure*, Rev 1, was released August 18, 2015.
- Completed RPP-RPT-58832, *Final Report for Tank 241-AP-101 Grab Samples in Support of Waste Compatibility in Fiscal Year 2015*, Rev 1, was released August 13, 2015.
- Completed RPP-PLAN-56090, *Grab Sampling and Analysis plan for the 241-AY-102 Leak Detection Pit*, Rev 1, was released August 13, 2015.
- Completed RPP-RPT-58803, *Tank 241-C-101 Residual Waste Inventory Estimates for Component Closure Risk Assessment*, Rev 0, was released August 20, 2015.
- Completed RPP-RPT-58823, *Final Report for Tank 241-SY-102 Cores 333 and Core 334 in Support of Corrosion Mitigation, Criticality, and Strategic Planning*, Rev 0, was released August 4, 2015.
- Completed 241-SY-103 core sampling August 7, 2015. Twenty-three samples were obtained for lab analysis.

**Planned Action within the Next Six Months:**

***Tank sampling:***

- Tank 241-AP-105 grab sampling is planned for September 2015.
- Tank 241-C-105 in-process grab sampling is planned for September 2015.

***Best-Basis Inventory (BBI) updates:***

BBI updates for the following tanks were completed in August:

- 241-AN-107
- 241-C-101
- 241-SX-102
- 241-TX-102
- 241-TX-106

BBI updates for the following tanks currently are planned to be completed in September:

- 241-AP-101
- 241-AP-103
- 241-AP-107
- 241-AW-102
- 241-AX-101
- 241-AZ-102
- 241-SY-102

***Data Quality Objectives (DQO):***

- RPP-44057, *Data Quality Objectives to Support Strategic Planning*, Rev 2, is in-process to clarify DQO applicability and obtain data used to update the BBIs.
- RPP-SPEC-33590, *Data Quality Objectives for Evaluation of Stack Chemical Emissions*, Rev 2, is in-process to incorporate updated requirements for evaluation of stack chemical emissions after AY/AZ tank farm ventilation upgrades.
- HNF-SD-WM-DQO-001, *Data Quality Objectives for the Tank Farms Waste Compatibility Program*, Rev 21, is in-process to simplify quality control parameters.
- RPP-8532, *Double-Shell Tanks Chemistry Control Data Quality Objectives*, Rev 15, is in-process to identify additional analyses for corrosion mitigation and to simplify quality control parameters.

**Issues:**

None.

## Tank Operations Contract Overview

### *Project Performance*

The earned value performance reporting reflects the format, work breakdown structure reporting levels, and variance thresholds as agreed to with the Tank Operations Contractor (TOC) for monthly performance reporting. The earned value analysis is not intended to be a measurement of performance against existing TPA milestones.

As of July 31, 2015, Washington River Protection Solutions LLC (WRPS) , the Tank Operations Contractor, has worked 284 days without a lost time workday injury and 141 days since the last recordable case.

July-15										
	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC	EAC	VAC
CM	42,157	48,379	50,929	6,222	(2,550)	1.15	0.95			
FYTD	414,577	412,533	427,855	(2,044)	(15,322)	1.00	0.96	549,484.0		
CTD	2,758,482	2,731,013	2,728,800	(27,469)	2,213	0.99	1.00	3,573,080.0	3,535,500.0	37,580.0

ACWP = actual cost of work performed.

BAC = budget at completion.

BCWP = budgeted cost of work performed.

BCWS = budgeted cost of work scheduled.

CPI = cost performance index.

CV = cost variance.

EAC = estimate at completion.

SPI = schedule performance index.

SV = schedule variance.

VAC = variance at completion.

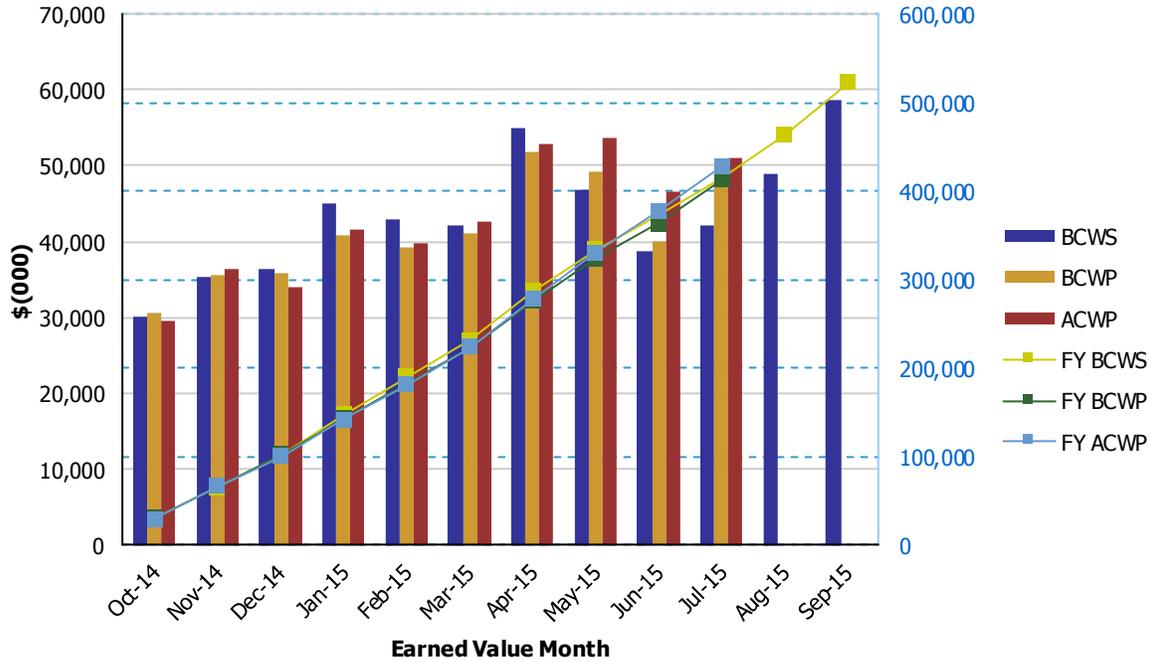
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2015 Earned Value Data

Data as of: July 2015

#### 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 2014	\$30,052	\$30,480	\$29,607	1.01	1.03	\$30,052	\$30,480	\$29,607	1.01	1.03
Nov 2014	\$35,246	\$35,697	\$36,417	1.01	0.98	\$65,298	\$66,178	\$66,024	1.01	1.00
Dec 2014	\$36,377	\$35,858	\$33,978	0.99	1.06	\$101,675	\$102,036	\$100,002	1.00	1.02
Jan 2015	\$45,083	\$40,697	\$41,603	0.90	0.98	\$146,757	\$142,733	\$141,605	0.97	1.01
Feb 2015	\$42,913	\$39,189	\$39,643	0.91	0.99	\$189,671	\$181,922	\$181,248	0.96	1.00
Mar 2015	\$42,159	\$41,174	\$42,721	0.98	0.96	\$231,830	\$223,096	\$223,968	0.96	1.00
Apr 2015	\$54,958	\$51,747	\$52,922	0.94	0.98	\$286,788	\$274,843	\$276,890	0.96	0.99
May 2015	\$46,888	\$49,161	\$53,532	1.05	0.92	\$333,676	\$324,004	\$330,422	0.97	0.98
Jun 2015	\$38,744	\$40,149	\$46,503	1.04	0.86	\$372,420	\$364,153	\$376,925	0.98	0.97
Jul 2015	\$42,157	\$48,379	\$50,989	1.15	0.95	\$414,577	\$412,532	\$427,914	1.00	0.96
Aug 2015	\$48,837					\$463,414				
Sep 2015	\$58,619					\$522,033				

CTD	\$2,758,482	\$2,731,013	\$2,728,800	0.99	1.00
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- ACWP = actual cost of work performed.
- BCWP = budgeted cost of work performed.
- BCWS = budgeted cost of work scheduled.
- CPI = cost performance index.
- EVMS = Earned Value Management System.
- SPI = schedule performance index.

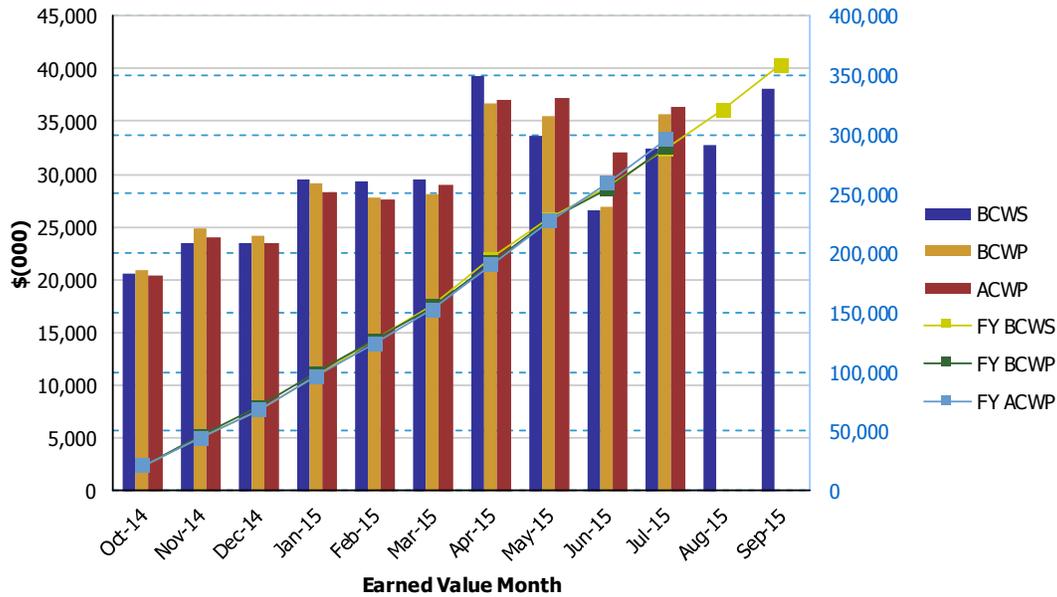
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2015 Earned Value Data

Data as of: July 2015

**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 2014	\$20,627	\$20,833	\$20,428	1.01	1.02	\$20,627	\$20,833	\$20,428	1.01	1.02
Nov 2014	\$23,471	\$24,930	\$23,988	1.06	1.04	\$44,098	\$45,762	\$44,417	1.04	1.03
Dec 2014	\$23,467	\$24,105	\$23,547	1.03	1.02	\$67,565	\$69,867	\$67,964	1.03	1.03
Jan 2015	\$29,511	\$29,162	\$28,218	0.99	1.03	\$97,075	\$99,029	\$96,181	1.02	1.03
Feb 2015	\$29,299	\$27,739	\$27,582	0.95	1.01	\$126,375	\$126,768	\$123,764	1.00	0.98
Mar 2015	\$29,525	\$28,162	\$28,967	0.95	0.97	\$155,900	\$154,929	\$152,731	0.99	0.99
Apr 2015	\$39,203	\$36,623	\$36,998	0.93	0.99	\$195,103	\$191,552	\$189,729	0.98	0.99
May 2015	\$33,584	\$35,557	\$37,250	1.06	0.95	\$228,687	\$227,109	\$226,979	0.99	1.00
Jun 2015	\$26,594	\$26,830	\$32,081	1.01	0.84	\$255,281	\$253,939	\$259,060	0.99	1.02
Jul 2015	\$32,374	\$35,612	\$36,276	1.10	0.98	\$287,655	\$289,551	\$295,336	1.01	1.02
Aug 2015	\$32,790					\$320,445				
Sep 2015	\$38,151					\$358,596				
CTD	\$1,825,382	\$1,815,395	\$1,803,020	0.99	1.01					

#### Base Operations and Tank Farm Projects

The current month favorable schedule variance (SV) of \$2,938K is due:

- Reduction of budgeted cost of work scheduled of SY Farm exhauster installation and replacement of AW-106 pump and jumpers to FY2016 due to funding limitations in FY2015. Reduction has caused a positive schedule variance.
- The AP Farm equipment removal and hose-in-hose transfer line (HIHTL) installation start was delayed by 6 weeks due to an evaluation of underground obstructions required

to receive the excavation permit, additional time was required to complete the evaluation.

The current month unfavorable cost variance (CV) of (\$664K) is due to

- Additional resources were required to perform core sampling at SY-103 due to an increase of samples requested on the Waste Sampling Plan, also increased preventative and corrective maintenance of the core sampling platform not planned.
- Increased support and materials required in base operations due to changing vapor conditions.

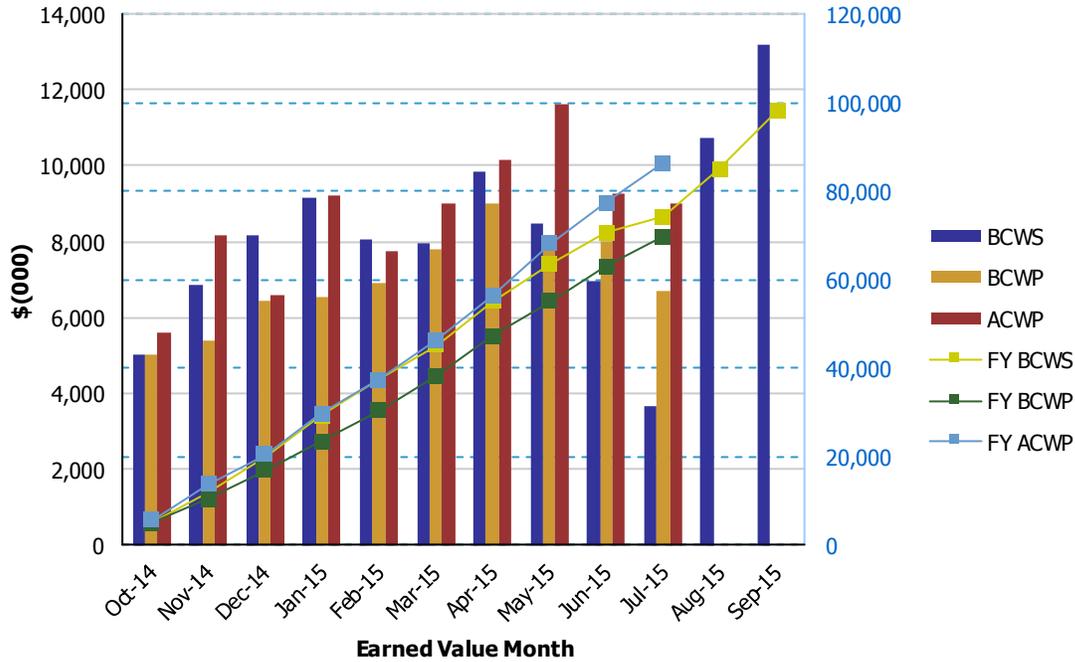
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2015 Earned Value Data

Data as of: July 2015

**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 2014	\$5,024	\$5,011	\$5,609	1.00	0.89	\$5,024	\$5,011	\$5,609	1.00	0.89
Nov 2014	\$6,852	\$5,392	\$8,174	0.79	0.66	\$11,876	\$10,403	\$13,783	0.88	0.75
Dec 2014	\$8,171	\$6,453	\$6,612	0.79	0.98	\$20,047	\$16,856	\$20,395	0.84	0.83
Jan 2015	\$9,167	\$6,524	\$9,195	0.71	0.71	\$29,215	\$23,380	\$29,589	0.80	0.79
Feb 2015	\$8,075	\$6,924	\$7,719	0.86	0.90	\$37,290	\$30,304	\$37,309	0.81	0.81
Mar 2015	\$7,971	\$7,801	\$9,009	0.98	0.87	\$45,261	\$38,105	\$46,318	0.84	0.82
Apr 2015	\$9,818	\$9,019	\$10,148	0.92	0.89	\$55,079	\$47,124	\$56,466	0.86	0.83
May 2015	\$8,475	\$7,830	\$11,613	0.92	0.67	\$63,554	\$54,954	\$68,079	0.86	0.81
Jun 2015	\$6,981	\$8,021	\$9,247	1.15	0.87	\$70,535	\$62,975	\$77,326	0.89	0.81
Jul 2015	\$3,666	\$6,714	\$8,983	1.83	0.75	\$74,201	\$69,689	\$86,309	0.94	0.81
Aug 2015	\$10,714					\$84,915				
Sep 2015	\$13,179					\$98,094				

CTD	\$579,699	\$565,108	\$595,652	0.97	0.95
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#### Retrieve and Close Single Shell Tanks

The current month favorable schedule variance (SV) of \$3,049K is due to:

- Received final materials for the POR127 work platform (schedule recovery as this material was originally planned to be delivered in May).

- Retrieval operation was sporadic at Tank 241-C-105 due to a work stoppage related to a potential hose cage temperature issue (AN-06 Red Arrow). Retrieval operations resumed on July 16 and an estimate 6K gallons of waste has been retrieved since the last reporting period.
- Reprioritized scope (A-Farm SEG, A/AX Farm Direct Push, A/AX Personnel Office Trailers and A/AX Steam Line Removal) to better align with fiscal year budget. Many of the scope deferrals resulted in negative budgeted cost of work scheduled (BCWS), which produced a positive schedule variance for the current period.

The current month unfavorable cost variance (CV) of (\$2,269K) is due to:

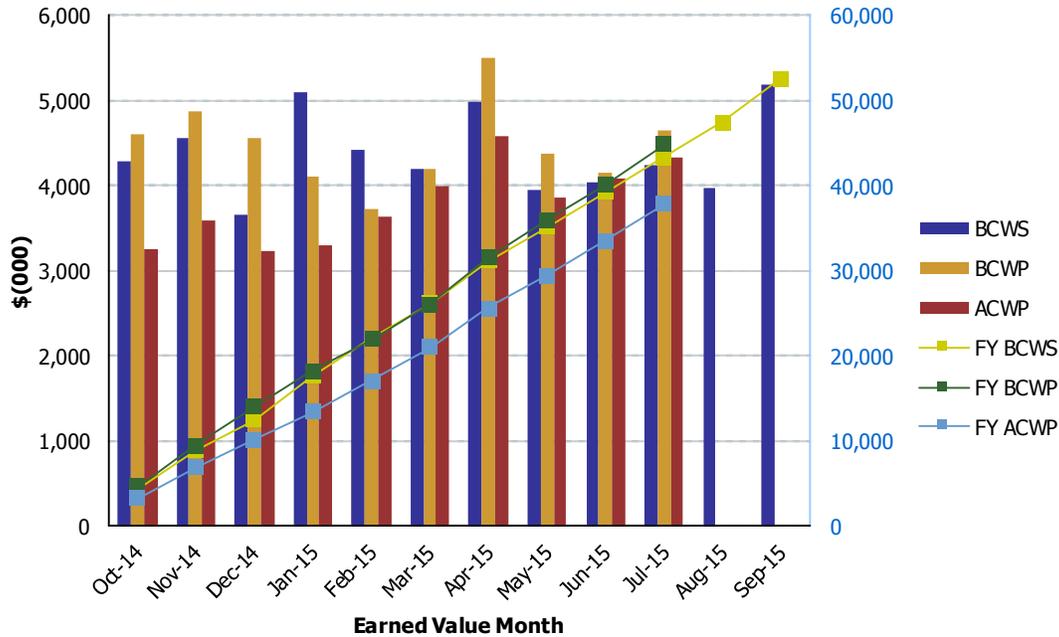
- Limited amount of waste was retrieved from Tank 241-C-105 during July was due to a work stoppage related to a potential hose cage temperature issue (AN-06 Red Arrow). The project team was required to carry the full retrieval crew during this work stoppage.
- Increased/Additional subcontractor utilization related to field activities for the caisson excavation due to higher than expected contamination levels (the soil is being drummed by hand during excavation), and additional crane usage for exhauster installation, tower/stack extension & platform installations.

Data Set: FY 2015 Earned Value Data

Data as of: July 2015

**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 2014	\$4,277	\$4,605	\$3,261	1.08	1.41	\$4,277	\$4,605	\$3,261	1.08	1.41
Nov 2014	\$4,549	\$4,876	\$3,585	1.07	1.36	\$8,826	\$9,480	\$6,846	1.07	1.38
Dec 2014	\$3,652	\$4,559	\$3,229	1.25	1.41	\$12,478	\$14,040	\$10,075	1.13	1.39
Jan 2015	\$5,101	\$4,113	\$3,308	0.81	1.24	\$17,579	\$18,152	\$13,383	1.03	1.36
Feb 2015	\$4,413	\$3,734	\$3,636	0.85	1.03	\$21,992	\$21,887	\$17,019	1.00	1.29
Mar 2015	\$4,185	\$4,206	\$3,988	1.00	1.05	\$26,177	\$26,092	\$21,007	1.00	1.24
Apr 2015	\$4,989	\$5,497	\$4,584	1.10	1.20	\$31,166	\$31,589	\$25,591	1.01	1.23
May 2015	\$3,946	\$4,372	\$3,849	1.11	1.14	\$35,112	\$35,961	\$29,440	1.02	1.22
Jun 2015	\$4,043	\$4,154	\$4,082	1.03	1.02	\$39,155	\$40,115	\$33,522	1.02	1.20
Jul 2015	\$4,250	\$4,650	\$4,341	1.09	1.07	\$43,405	\$44,765	\$37,863	1.03	1.18
Aug 2015	\$3,968					\$47,373				
Sep 2015	\$5,179					\$52,552				
CTD	\$319,975	\$317,329	\$298,208	0.99	1.06					

**Waste Feed Delivery/Treatment/Double-Shell Tank Retrieval Closure**

The current month favorable schedule variance (SV) of \$400K is due to:

- Realignment of the direct-feed low-activity waste (DFLAW) models causing a current month point adjustment.
- Schedule recovery of the Waste Treatment and Immobilization Plant (WTP) design review’s BCWS from May and June.

The current month favorable cost variance (CV) of \$309K is due to:

- WRPS labor being utilized in-lieu of subcontractor support. In addition WRPS labor usage was lower than the planned subcontractor usage during the Effluent Management Facility Disposition Evaluation. This CV is driven by utilizing more experienced resources than planned with historical knowledge of the work scope.

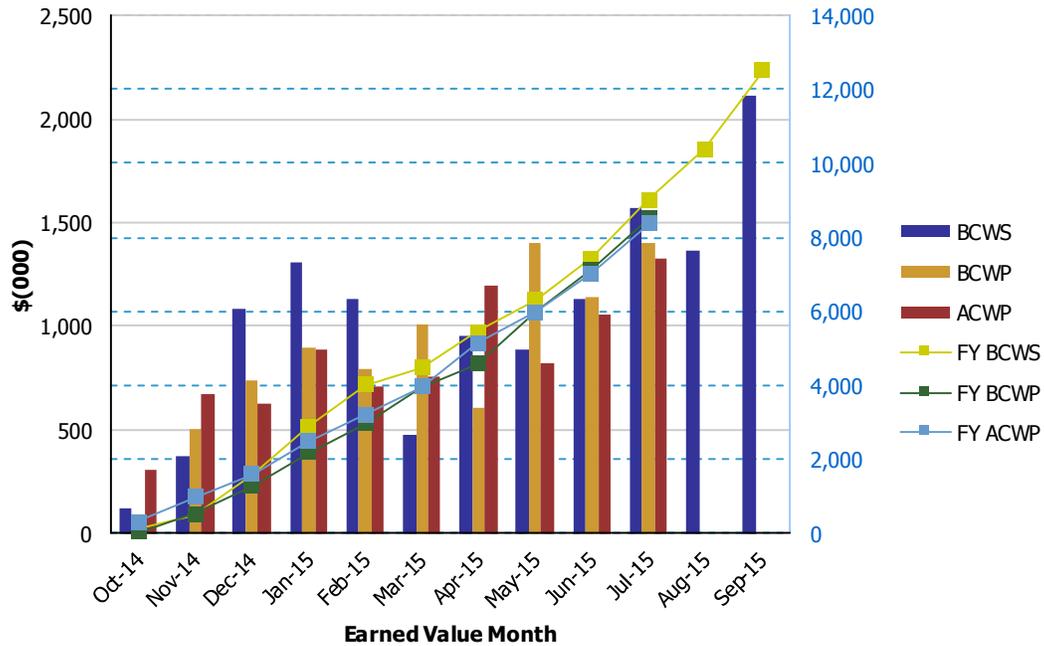
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2015 Earned Value Data

Data as of: July 2015

**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 2014	\$124	\$32	\$308	0.26	0.10	\$124	\$32	\$308	0.26	0.10
Nov 2014	\$374	\$500	\$674	1.34	0.74	\$498	\$532	\$982	1.07	0.54
Dec 2014	\$1,087	\$741	\$628	0.68	1.18	\$1,585	\$1,273	\$1,610	0.80	0.79
Jan 2015	\$1,304	\$899	\$883	0.69	1.02	\$2,889	\$2,172	\$2,493	0.75	0.87
Feb 2015	\$1,126	\$792	\$707	0.70	1.12	\$4,015	\$2,964	\$3,200	0.74	0.93
Mar 2015	\$478	\$1,006	\$754	2.11	1.33	\$4,492	\$3,970	\$3,954	0.88	1.00
Apr 2015	\$948	\$607	\$1,194	0.64	0.51	\$5,440	\$4,577	\$5,148	0.84	0.89
May 2015	\$884	\$1,403	\$818	1.59	1.72	\$6,324	\$5,980	\$5,966	0.95	1.00
Jun 2015	\$1,127	\$1,144	\$1,057	1.02	1.08	\$7,451	\$7,124	\$7,023	0.96	1.01
Jul 2015	\$1,566	\$1,402	\$1,328	0.90	1.06	\$9,017	\$8,526	\$8,351	0.95	1.02
Aug 2015	\$1,367					\$10,384				
Sep 2015	\$2,111					\$12,495				
CTD	\$13,317	\$13,071	\$12,748	0.98	1.03					

**Treat Waste**

The current month unfavorable schedule variance (SV) of (\$164K) is within threshold.

The current month favorable cost variance (CV) of \$74K is within threshold.

## Work Breakdown Structure 5.2 Retrieve and Close Single-Shell Tanks

**M-045-56K, Complete Implementation of Agreed to Interim Measures**, Due: July 31, 2015, Status: Complete. Annual meeting was held July 15, 2015. Meeting notes have been placed in the Administrative Record at this location:

<http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0080444H>

**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: On schedule.

**M-045-61A, Submit to Ecology for review and approval as an Agreement primary document, document review process, a Phase 2 Corrective Measures Study, and Revision 0 update to the RFI Report for WMA-C**, Due: December 31, 2016, Status: On Schedule. The *Phase 2 RCRA Facility Investigation Report Draft A* for Waste Management Area C (WMA-C), RPP-RPT-58339, was transmitted to Ecology on December 23, 2014, via letter 14-TF-0131. This milestone was created by *Hanford Federal Facility Agreement and Consent Order* (HFFACO) change package M-45-14-03, signed October 1, 2014.

**M-045-62, Submit to Ecology for review and approval as an agreement primary document a Phase 2 Corrective Measures Study Implementation Plan for WMA-C**, Due: Six months after the approval of the corrective measures study (CMS) submitted under milestone M-045-61A Status: TPA Change Control form M-45-15-02 approved on April 14, 2015.

**M-045-92, Complete Installation of Four (4) Additional Interim Barriers** (see interim milestones below), Due: October 31, 2017, Status: In Dispute. TPA Change Control form M-45-15-01 submitted via letter 15-TF-0027 on March 31, 2015. Change was not approved and dispute resolution process was initiated via letter 15-TF-0042 on April 20, 2015. Dispute is at the project manager level and has been extended to October 15, 2015.

**M-045-92N, Construct Barriers 1 and 2 in 241-SX Farm**, Due: October 31, 2015, Status: In Dispute. TPA Change Control form M-45-15-01 submitted via letter 15-TF-0027 on March 31, 2015. Change was not approved and dispute resolution process was initiated via letter 15-TF-0042 on April 20, 2015. Dispute is at the project manager level and has been extended to October 15, 2015.

**M-045-92O, Submit a Final Design and Monitoring Plan for Interim Barrier 3**, Due: June 30, 2015, Status: In Dispute. TPA Change Control form M-45-15-01 submitted via letter 15-TF-0027 on March 31, 2015. Change was not approved and dispute resolution process was initiated via letter 15-TF-0042 on April 20, 2015. Dispute is at the project manager level and has been extended to October 15, 2015.

**Significant Past Accomplishments:**

- Automated data collection systems for T Farm and TY Farm interim barrier monitoring continue gathering data
- Documentation of the WMA-C Phase 2 Resource Conservation and Recovery Act Facility Investigation Report was completed, and RPP-RPT-58339 was transmitted to Ecology on December 23, 2014, completing M-045-61.
- Completed the annual interim barrier monitoring report for data collected in 2014, RPP-ENV-58420.

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

- Continue data collection for T Farm and TY Farm interim surface barrier monitoring.

**Issues:**

- Change control form M-45-15-01 was submitted by ORP via letter 15-TF-0027 to Ecology for approval. Ecology (ECY) disapproved M-45-15-01 via 15-NWP-075 due to (1) interim barriers are necessary to mitigate impacts to human health and the environment, (2) the sooner barriers are installed the better along with further delays to the WTP, and (3) barrier size of 100 foot boundary is important. On April 20, 2015 via 15-TF-0042 ORP initiated dispute. On April 23, 2015 the first extension is signed to August 16, 2015. On May 14, 2015, and June 25, 2015 ORP and ECY met to resolve the dispute in two meetings and a draft M-45-15-04 with Force Majeure language as per the request from ECY on May 14, 2015. On July 1, 2015, ORP and ECY had a third and final meeting to resolve the dispute. This dispute has been extended to October 15, 2015, with a proposed draft settlement proposed by ECY.
- Change Control Form M-45-15-03 for M-045-82 milestone was sent on June 30, 2015 via 15-TF-0065. On July 14, 2015 ECY disputed the M-45-15-03 via 15-NWP-128 based on 1) M-45-15-3 does not cite good cause for extensions, 2) the form does not describe all impacts of the changes, and 3) ECY would like to work with ORP to develop a logic diagram that describes the sequence of activities necessary to complete the milestone. On July 16, 2015, via 15-TF-0069 ORP initiated dispute resolution and on July 31, 2015 the extension of dispute at the project manager level was extended to October 20, 2015.

**Single-Shell Tank Retrieval and Closure Program**

**M-045-82, Submit complete permit mod requests for Tiers 1, 2, and 3 of the SST, Due:** September 30, 2015, Status: In dispute. Please see issues.

**M-045-84, Complete negotiations of TPA interim milestones for closure of second WMA,** Due: January 31, 2017, Status: On schedule.

**M-045-83, Complete the closure of WMA-C, Due:** June 30, 2019, Status: To be missed. Please see issues.

**M-045-85, Complete negotiations of TPA interim milestones for closure of remaining WMAs, Due: January 31, 2022, Status: On schedule.**

**M-045-70, Complete waste retrieval from all remaining SSTs, Due: December 31, 2040, Status: On schedule.**

**M-045-00, Complete closure of all SST farms, Due: January 31, 2043, Status: On schedule.**

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

- M-045-86C: RDR for C-104 was due March 21, 2014. Completed on February 18, 2014 with letter 14-TF-0013
- M-045-86F: RDR for C-108 was due May 1, 2014. Completed on November 27, 2013 with letter 13-TF-0120
- M-045-86G: RDR for C-109 was due June 4, 2014. Completed on March 13, 2014 with letter 14-TF-0020
- M-045-86H: RDR for C-110 was due January 29, 2015. Completed on August 6, 2014 with letter 14-TF-0086.

**Significant Past Accomplishments:**

- Completed Annual Interim Measures/TPA Agreement Meeting.
- Completed HIHTL removal/disposal from C-108 and C-109.
- Completed C-107 Retrieval Data Report.
- Resumed Retrieval Operations at C-105 and retrieved over 6K gallons of waste during July.
- Received remaining POR127 work platform for A/AX Farm.
- Removed equipment from AX-101 Pit/Riser.
- Completed A/AX personnel office/bathroom trailer/showers/ACES station design – FY2015 Phase 5a.
- Completed Integrated Disposal Facility (IDF) Project Execution Plan and Quality Assurance Plan.
- Finalized IDF data package for Workshop #2 and finalized & issued IDF Material for Workshops #3 and #4

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

- M-45-56k, meet yearly – complete implementation of agreed to interim measures (meeting minutes/TPA Administrative Record)
- PBI-11.3.2 – Completed removal/shipping for eight interim stabilization HIHTLs

- Complete C-101 post retrieval sampling and analysis
- Complete C-105 first and second technology retrieval operations
- PBI-11.3.1.2- Complete C-107 RDR
- Complete C-111 extended reach sluicer system (ERSS) installation and complete retrieval operations
- PBI-11.3.1.3 – Complete C-112 RDR
- Complete A/AX infrastructure (water and utilities) design – FY 2015 Phase 4A and Phase 5
- Finalize AX-Farm tank waste retrieval work plans (TWRWP)
- Complete C.2.2.2-1 integrated SST WMA closure plan (FY 2015)
- PBI-11.0.3 – Complete AX Farm tank retrieval system media for AX Farm to AX-102 retrieval system
- Complete AX Farm field work for tower, stack extension, and platform installation
- Complete AX Farm office trailer design (temporary facilities)
- Complete A/AX infrastructure SIS design modifications
- Complete equipment removal/disposal at AX-101 pit and riser
- Complete AX-2707 fencing and gate upgrades
- Finalize TPA/RCRA Tier 1 closure plan and IDF PA - Finalize/Issue material for Workshop #3 and #4.
- Complete TPA/RCRA Tier 3 closure plan templates and perform scoping for performance assessment (PA) (A Complex).
- Complete WMA C tank residuals draft performance assessment results.
- Transmit the RDR for Tank C-107.
- Complete the RDR for Tank C-101

**Issues:**

- ORP and Ecology continue to meet to develop an integrated path forward that addresses all the deliverables associated with Milestone M-045-82. ORP submitted change control form M-45-15-03 to Ecology via letter 15-TF-0065 on June 30, 2015. On July 15, 2015 Ecology sent a draft letter to ORP disapproving the change request. On July 16, 2015 under letter 15-TF-0069 ORP initiated dispute resolution with Ecology in accordance with TPA Article VIII. On August 10, 2015 ORP and Ecology extended dispute resolution for this milestone until October 20, 2015.
- Delays in obtaining the post-retrieval samples from tanks C-112 and C-101 may result in delayed completion of the RDRs.
- The HFFACO Appendix I, “Performance Assessment,” will not be completed for submittal to ECY until October 2016, along with the submittal of the Phase 2 corrective measures study and Rev. 0 update to the RCRA Facility Investigation Report (RFI) for

WMA-C due on December 31, 2016. Currently the review cycle for both the closure plans by ECY and the review of the waste incidental to reprocessing decision by DOE do not allow adequate time for completion and to be able to perform field activities necessary to complete by June 30, 2019

### Tank Waste Retrieval Work Plan Status

Tank	TWRWP	Expected Revisions	First Retrieval Technology	Second Technology	Third Technology
C-101	RPP-22520, Rev. 8	Complete	Modified Sluicing with ERSS	High-Pressure Water deployed with the ERSS	-
C-102	RPP-22393, Rev. 7	Complete	Modified Sluicing with ERSS	High-Pressure Water deployed with the ERSS	-
C-104	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0018	-
C-105	RPP-22520, Rev. 8	Complete	MARS-V	MARS-V-High Pressure Water Spray	-
C-107	RPP-22393, Rev. 7	Complete	MARS-S	MARS-S -High Pressure Water Spray	Water Dissolution
C-108	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0025	-
C-109	RPP-21895, Rev. 5	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0037	-
C-110	RPP-33116, Rev. 3	Complete	Modified Sluicing	Mechanical Waste Conditioning with an In-Tank Vehicle	High Pressure Water
C-111	RPP-37739, Rev. 2	Complete	Modified Sluicing	High pressure water using the ERSS	Chemical Dissolution Process with ERSS
C-112	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process	-

ERSS = Extended Reach Sluicing System  
MARS = Mobile Arm Retrieval System  
S = sluicing

TWRWP = Tank Waste Retrieval Work Plan  
V = vacuum

#### Significant Accomplishments:

None.

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

- Draft AX Farm TWRWPs.

**Issues:**

None.

## **Tank in Appendix H, “Status - Single Shell Waste Retrieval Criteria”**

### **Tank 241-C-106**

**Significant Past Accomplishments:**

None.

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

- Continue U.S. Nuclear Regulatory Commission (NRC) review of the C-106 exception request. A request for additional information was received from the NRC in February 2009.

**Issues:**

- It has been discussed with the NRC that much of the additional information requested is dependent upon development of C Farm residual waste PA and, therefore, cannot be provided until the PA is published.

## **Tank Retrievals with Individual Milestones**

### **Tank 241-A-103**

**M-045-15, Completion of Tank A-103 SST Waste Retrieval**, Due: September 30, 2022, Status: On schedule. Change package M-45-11-04 replaced Tank S-102 with Tank A-103 and changed the milestone completion date for M-045-15 to September 30, 2022.

**M-045-15A, Embedded Milestone, Submit a Retrieval Data Report Pursuant to Agreement Appendix I**, Due: September 30, 2022, Status: On schedule. Updated with Tank A-103 and due date of September 30, 2022, per change package M-45-11-04.

**M-045-15D, Embedded Milestone, if appropriate, DOE will request an exception to waste retrieval criteria pursuant to Agreement Appendix H**, Due: September 30, 2022, Status: On schedule. Updated with Tank A-103 and due date of September 30, 2022, per change package M-45-11-04.

**Significant Past Accomplishments:**

- Change package M-45-11-04 was signed by ORP and Ecology on April 19, 2011.

**No significant planned activities in the next six months and no issues for Tank 241-A-103.**

**Tank 241-S-112**

**M-045-13, Interim Completion of Tank S-112 SST Waste Retrieval and Closure**

**Demonstration Project**, Due: To be determined (in accordance with M-045-84 or M-045-85),  
Status: On schedule.

**M-045-13E, Complete Negotiations for Interim Milestones for Closure of S-112**, Due: To be determined, Status: On schedule as part of M-045-84 or M-045-85.

**Significant Past Accomplishments:**

- Ecology letter of January 7, 2008, concurred with ORP that retrieval of Tank S-112 is complete.

**No significant planned activities in the next six months and no issues for Tank 241-S-112.**