

**FINAL**

Office of River Protection  
Tri-Party Agreement  
Monthly Summary Report  
April 2013



**Office of River Protection  
Tri-Party Agreement Milestone Review  
April 2013 (Project EVMS reflects February 2013)**

| <b>Page</b> | <b>Topic</b>   | <b>Leads</b>                              |
|-------------|--|---|
| 1           | Administrative Items / Milestone Status  | James Lynch / Dan McDonald / Jeff Lyon    |
| 2           | System Plan; M-62-40   | Dabrisha Smith / Jeff Lyon / Dan McDonald |
| 3           | Acquisition of New Facilities; M-90-00; M-47-00                                  | Janet Diediker / Jeff Lyon / Dan McDonald |
| 4           | Supplemental Treatment and Part B Permit Applications; M-62-00, -20, -30, -45    | Steve Pfaff / Jeff Lyon / Dan McDonald    |
| 5           | 242-A Evaporator Status  | Ron Koll / Jeff Lyon                      |
| 6           | SST Integrity Assurance; M-45-91   | Jeremy Johnson/ Michelle Hendrickson      |
| 7           | In Tank Characterization and Summary   | Billie Mauss / Michael Barnes             |
| 9           | Tank Operations Contract (TOC) Overview  | Dan Knight / Jeff Lyon                    |
| 14          | Single-Shell Tank Corrective Action; M-45, -50, -60                              | Chris Kemp / Jeff Lyon                    |
| 16          | Single-Shell Retrieval and Closure Program TPA Milestones Status; M-45-00 series | Chris Kemp / Jeff Lyon                    |
| 17          | Tank Waste Retrieval Work Plan Status  | Chris Kemp / Jeff Lyon                    |
| 17          | Tank in TPA Appendix H Status<br>Tank Retrievals with Individual Milestones      | Chris Kemp / Jeff Lyon                    |
| 18          | WTP Overall TPA Summary and Milestone Status; M-62-01                            | Delmar Noyes / Dan McDonald               |

| Milestone               | Title   | Due Date   | Completion Date | Status       |
|-------------------------|---|------------|-----------------|--------------|
| <b>Fiscal Year 2013</b> |   |            |                 |              |
| M-045-20                | Submit Interim Measures Investigation Work Plan and TPA Chg Pckgs for M-045-22 Target Dates | 12/31/2012 | 12/06/2012      | Completed    |
| M-090-11                | Comp. Neg's No More Than 2 Canister Storage Fac. Const. Int. M/S                            | 12/31/2012 | 11/19/2012      | Completed    |
| M-062-01Z               | Submit Semi-Annual Project Compliance Report  | 1/31/2013  | 1/31/2013       | Completed    |
| M-045-91F-T01           | Provide Report of the Liquid Leak Rate Assessments  | 1/31/2013  |                 | Missed       |
| M-045-21                | Submit Sampling and Analysis Plan for 241-TX Tank Farm                                      | 3/31/2013  | 3/11/2013       | Completed    |
| M-045-91D-T01           | Provide Report on the Concrete Dome Samples from Tank C-107 Plug                            | 5/31/2013  |                 | On Schedule  |
| M-045-91F-T03           | Provide Report on Testing for Ionic Conductivity of SSTs                                    | 5/31/2013  | 5/02/2012       | Completed    |
| M-045-91F-T02           | Provide Report of Liner Failures for SSTs   | 7/31/2013  |                 | To Be Missed |
| M-062-01AA              | Submit Semi-Annual TPA Project Compliance Report  | 7/31/2013  |                 | On Schedule  |
| M-045-91F-T04           | Provide Report on 100-Series SSTs as having Leaked in RPP-32681                             | 7/31/2013  |                 | To Be Missed |
| M-045-91E               | Provide SST Farms Dome Deflection Surveys Every Two Years                                   | 9/30/2013  |                 | On Schedule  |
| M-045-91G-T03           | Provide AOR Final Doc. for SSTs on 1,000,000 Gallon Tanks                                   | 9/30/2013  |                 | To Be Missed |
| <b>Fiscal Year 2014</b> |   |            |                 |              |
| M-045-91G-T04           | Provide AOR Final Doc. for SSTs on 55,000 Gallon Tanks                                      | 10/31/2013 |                 | To Be Missed |
| M-062-40C               | Select a Minimum of Three Scenario's for the System Plan                                    | 10/31/2013 |                 | On Schedule  |
| M-045-91F               | Provide Summary Conclusions Report on Leak Integrity  | 12/31/2013 |                 | To Be Missed |
| M-045-91G               | Provide Summary Conclusions Report of AOR for SSTs  | 04/30/2014 |                 | To Be Missed |
| M-045-56J               | Ecology And DOE Agree, At A Minimum, To Meet Yearly (By July)                               | 07/31/2014 |                 | On Schedule  |
| M-045-91B-T01           | Provide Ecology report on the Concrete Core from TankA-106 or alt                           | 09/30/2014 |                 | On Schedule  |
| M-047-07                | CD-1 for Secondary Liquid Waste Treatment and CR for CD-2 to Ecology                        | 09/30/2014 |                 | On Schedule  |
| M-090-13                | CD-1 for Interim Hanford Storage Project and CR for CD-2 to ECY                             | 09/30/2014 |                 | On Schedule  |
| <b>Fiscal Year 2015</b> |   |            |                 |              |
| M-062-40D               | Submit System Plan  | 10/31/2014 |                 | On Schedule  |
| M-062-40ZZ              | Submit One Time Tank Waste Supp Treatment Technologies Report                               | 10/31/2014 |                 | On Schedule  |

| Milestone     | Title  | Due Date   | Completion Date | Status       |
|---------------|--|------------|-----------------|--------------|
| M-045-61      | Phase 2 RCRA Facility Investigation/Corrective Measures Study  | 12/31/2014 |                 | To Be Missed |
| M-062-45-T01  | Comp. Neg's 6-Mo After Last Issuance of System Plan            | 04/30/2015 |                 | On Schedule  |
| M-062-45-ZZ   | Negotiate a One Time Supplemental Treatment Selection          | 04/30/2015 |                 | On Schedule  |
| M-062-45-ZZ-A | Convert M-062-31-T01 Thru M-062-34-T01 to Interim Milestones   | 04/30/2015 |                 | On Schedule  |
| M-045-62      | Phase 2 Corrective Measures Implementation Work Plan For WMA C | 06/30/2015 |                 | To Be Missed |
| M-045-92O     | Barrier 3 Design/Monitoring Approval From Ecology              | 06/30/2015 |                 | On Schedule  |
| M-045-56K     | Ecology And DOE Agree, At A Minimum, To Meet Yearly (By July)  | 07/31/2015 |                 | On Schedule  |
| M-045-91H     | Submit Change Pkg (if necessary) to est. Additional Milestones | 07/31/2015 |                 | On Schedule  |
| M-045-82      | Submit Comp. Permit Modification Request for Tiers 1,2,3       | 09/30/2015 |                 | To Be Missed |

## System Plan

**M-062-40B, Submit a system plan describing the disposition of all tank waste managed by ORP, Due: 10/31/2011, Status: Completed 10/24/2011 via DOE-ORP/ECY joint signature letter 11-TPD-087.**

**M-062-40C, Select a minimum of three scenarios that will be analyzed in the system plan, Due: 10/31/2013, Status: On Schedule**

**M-062-40D, Submit a system plan describing the disposition of all tank waste managed by ORP, Due: 10/31/2014, Status: On Schedule**

**M-062-45-T01, Every six years, within six-months after last revision of the System Plan, negotiate tank waste retrieval sequencing, Due: 4/30/2015, Status: On Schedule**

### Significant Past Accomplishments:

DOE/ORP submitted the River Protection Project System Plan, Revision 6, with a joint Ecology signature to EPA on October 24, 2011.

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

ORP and Ecology are scheduled to meet on April 30, 2013 for the WRPS presentation on the status on various recommendations made in regards to several model planning tools in the 2009, "External Technical Review for Evaluation of System Level Modeling and Simulation Tools in Support of Hanford Site Liquid Waste Process", Please see issues below.

ORP and Ecology will jointly begin defining the System Plan 7 scenarios in the July-August 2013 time frame. The defined scenarios milestone is October 31, 2013.

**Issues:**

In the October 23, 2012 TPA Project Managers meeting Dan Mc Donald, Ecology, informed ORP that system plan development for FY 14 could not move forward until ORP had read and responded to the comments in the headquarters document, "External Technical Review for Evaluation of System Level Modeling and Simulation Tools in Support of Hanford Site Liquid Waste Process." Ecology has asked for a meeting with ORP and WRPS as soon as they have read the document and are able to brief on where they think they are going with comment response development.

### **Acquisition of New Facilities**

**M-090-13, Submit CD-1 for Interim Hanford Storage Project and TPA Change Request for CD-2 to Ecology**, Due: 09/30/14, Status: On Schedule. Created by TPA Change Control Form M-90-12-02, signed by ORP and Ecology on 11/19/12, 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 IHLW**, Due: 12/31/2019, Status: On Schedule

**M-047-07, Submit CD-1 for Secondary Liquid Waste Treatment and CR for CD-2 to Ecology**, Due 09/30/14, Status: On Schedule. Created by TPA Change Control Form M-47-12-02, signed by ORP and Ecology on 11/19/12, 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 WTP**, Due: 12/31/2022, Status: On Schedule

**Significant Past Accomplishments:**

On November 19, 2012, Ecology and ORP signed TPA Change Control Forms M-47-12-02 and M-90-12-02 establishing M-047-07 and M-090-13, respectively. ORP letter 12-ECD-0225 notified Ecology of completion of milestones M-047-06 and M-090-11.

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

None.

**Issues:**

None.

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

**M-062-40ZZ, Submit a one-time Tank Waste Supplemental Treatment Technologies report if a supplemental treatment technology is proposed other than a 2nd LAW, Due:** 10/31/2014, Status: On Schedule.

**M-062-45ZZ, Negotiate a one-time supplemental treatment selection, Due:** 4/30/2015, Status: On schedule. Negotiations are not yet underway.

**M-062-45ZZ-A, Convert M-062-31-T01 through M-062-34-T01 to Interim Milestones, Due:** 4/30/2015, Status: On Schedule.

**M-062-31-T01, Complete final design and submit RCRA Part B permit mod request, Due:** 4/30/2016, Status: On schedule

**M-062-32-T01, Start construction of supplemental vitrification treatment facility and/or WTP enhancements, Due:** 4/30/2018, Status: On schedule

**M-062-33-T01, Complete construction of supplemental vitrification treatment facility and/or WTP enhancements, Due:** 4/30/2021, Status: On schedule

**M-062-45XX, No later than 12/31/2021, 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:** 12/31/2021, Status: On Schedule

**M-062-34-T01, Complete hot commissioning of supplemental vitrification treatment facility and/or WTP enhancements, Due:** 12/30/2022, Status: On schedule

**M-062-21, Annually, submit data that demonstrates operation of the WTP, Due:** 2/28/2023, Status: On Schedule

**M-062-00, Complete Pretreatment Processing and Vitrification of HLW and LAW Tank Wastes, Due:** 12/31/2047, Status: On Schedule

### **Significant Past Accomplishments:**

None

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

None

### **Issues:**

At the January 2013 TPA PMM meeting, ORP stated DOE and Ecology are currently in discussions to move out the due dates for M-062-40ZZ and M-062-45ZZ (current due dates 10/31/2014 and 4/30/2015, respectively).

## **242-A Evaporator Status (previously reported under Milestone M-48, which has been closed out)**

242-A Campaign strategy:

The 242-A Campaign Strategy for FY2010 through FY2015 depicted below has been updated based on ORP-11242, River Protection Project Plan, Revision 6, and ongoing schedule integration efforts.

| <b>Fiscal Year</b> | <b>Campaign No.</b> | <b>Feed Source</b>         | <b>Slurry Tank</b> | <b>Comments</b>  |
|--------------------|---------------------|----------------------------|--------------------|--|
| FY10               | 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.                                |
| FY10               | 10-02               | AW-106                     | AW-106             | Campaign 10-02 was an acceleration of previously planned Campaign 11-01.   |
| FY11               | NA                  | NA                         | NA                 | No campaign conducted in FY11 due to ongoing 242-A and Tank Farm facility life extension and ARRA funded upgrades.                             |
| FY12               | NA                  | NA                         | NA                 | No campaign conducted in FY12 due to ongoing 242-A and Tank Farm facility upgrades and revision to the 242-A Documented Safety Analysis (DSA). |
| FY13               | 13-01               | AP-107                     | AP-107             | Estimated start early August 2013. May require two (2) passes to achieve waste volume reduction.   |
| FY13               | 13-02               | AW-106                     | AW-106             | Estimated start late August 2013.  |
| FY14               | 14-01               | AN-106<br>AZ-102<br>AW-106 | AP-107             | Estimated start March 2014. Two (2) passes required.   |
| FY15               | 15-01               | AY-101<br>AZ-102           | AP-107             | Estimated start March 2015. Three (3) passes required.   |
| FY15               | 15-02               | AY-101                     | AP-107             | Estimated start August 2015. Four (4) passes required.   |

## SST Integrity Assurance

**M-045-91F-T01, Provide to Ecology as a HFFACO secondary document a report evaluating the applicability to Hanford SSTs of the liquid leak rate assessments of sludge and salt-cake from the Savannah River Site, Due: 1/31/2013, Status: Missed. See issues below.**

**M-045-91D-T01, Provide Ecology a report containing the results and interpretation of testing, and analysis performed on the concrete dome samples obtained from the Tank C-107 plug, Due: 5/31/2013, Status: On schedule.**

**M-045-91F-T03, Provide to Ecology, as a HFFACO secondary document a report assessing the feasibility of testing for ionic conductivity between the inside and outside of SSTs, Due: 5/31/2013, Status: Complete 05/02/2012. (ORP letter 12-TF-0009)**

**M-045-91F-T02, Provide to Ecology as a HFFACO secondary document a report evaluating the common factors of liner failures for SSTs that have leaked and will provide recommendations as appropriate, such as enhanced Leak Detection, Monitoring, and Mitigation, Due: 7/31/2013, Status: To Be Missed. See issues below.**

**M-045-91F-T04, provide to Ecology, as a HFFACO secondary document, a report on the 100-series single-shell tanks which have been or will be identified as having leaked in RPP-32681, Rev 0, Due: 7/31/2013, Status: To Be Missed. See issues below.**

**M-045-91G-T03, Provide to Ecology the Structural Analyses of Record final documentation for SSTs for 1,000,000 gallon tanks (A, AX and SX Farms), Due: 9/30/2013, Status: To Be Missed. See issues below.**

**M-045-91E, Provide to Ecology a compilation of the Single-Shell Tank farms dome deflection surveys every two years, beginning 9/30/2013, Due: 9/30/2013, Status: On schedule.**

**M-045-91G-T04, provide to Ecology the Structural Analyses of Record final documentation for SSTs for 55,000 gallon tanks (B, C, T and U Farms), Due: 10/31/2013, Status: To Be Missed. See issues below.**

**M-045-91F, Provide to Ecology a report (Summary Conclusions Report on Leak Integrity) summarizing and evaluating the information submitted under M-045-91F-T01 through -T04, Due: 12/31/2013, Status: To Be Missed. See issues below.**

**M-045-91G, Provide a Summary Conclusions Report of Structural Analysis of Record (AOR) for SSTs, Due: 4/30/2014, Status: To Be Missed. See issues below.**

**M-045-91B-T01, Provide Ecology a report containing the results and interpretation of testing, and analysis, performed on the concrete core obtained from Tank A- 106 or alternate tank, Due: 9/30/2014, Status: On schedule.**

**M-045-91H, Submit a change package (if deemed necessary by DOE and Ecology) to establish additional milestones based on information obtained from the actions in the preceding M-045-91 series milestones to date, Due: 7/31/2015, Status: On schedule.**

**M-045-91I, Provide to Ecology an IQRPE certification of SSTs structural integrity for the remainder of the mission, or for such time as the IQRPE believes he/she can reasonably certify, Due: 9/30/2018, Status: On schedule.**

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

- Work has resumed in the areas of, analysis of rebar from C-107, and SST leak cause and location analysis.

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

- Conclude discussion with Ecology regarding “To Be Missed” target dates and interim milestone impacts and submit the agreed-upon TPA Change Package for approval.
- Complete analysis of rebar from C-107 and complete M-045-91D-T01.

#### **Issues:**

- FY2012 and FY2013 funding constraints have impacted M-045-91 scheduled work. ORP has met with Ecology to discuss impacts on individual milestones and targets dates for FY2013 and beyond per the TPA Section 12.0 Change Process. Ecology’s initial comments on a draft TPA Change Request have been incorporated, and ORP has provided this updated draft to Ecology for review. As a result of sequestration, additional impacts to SST integrity work are being identified and ORP is re-evaluating the change package.

## **In Tank Characterization and Summary**

For the period from March 1 – March 30, 2013:

#### **Accomplishments:**

- Completed RPP-PLAN-53814, Rev. 0, ORSS Sampling and Analysis Plan for Waste Solids in Tank 241-C-109 to Support Tank Closure.
- Completed RPP-PLAN-23827, Rev. 3, Sampling and Analysis Plan for Single-Shell Tanks Component Closure.
- Completed RPP-PLAN-52884, Rev. 1, Sampling and Analysis Plan for Post-Retrieval Waste Solids in Tank 241-C-107
- Completed RPP-23403, Rev. 5, Single-Shell Tank Component Closure Data Quality Objectives.
- Completed RPP-RPT-44630, Rev. 5, Derivation of Best-Basis Inventory for Tank 241-AY-102 as of January 1, 2013.
- Completed RPP-RPT-44625, Rev. 2, Derivation of Best-Basis Inventory for Tank 241-AW-105 as of January 1, 2013.

- Completed sampling of Tank 241-AN-101 supernatant on March 11, 2013. Fourteen samples were collected.

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

- Tank Sampling
  - Tank 241-C-109 ORSS sampling for closure is currently scheduled for April 2013.
  - Tank 241-C-107 Mobile Arm Retrieval System (MARS) Drag Sampling for closure is currently scheduled for May 2013.
  - Tank 241-AY-101 grab sampling for chemistry control is currently scheduled for May 2013.
  - Tank 241-AN-102 grab sampling for chemistry control is currently scheduled for July 2013.
- BBI Updates: The following tanks have been identified for updates in FY13 Quarter 2. The BBI updates will be released in April 2013.
  - 241-AN-101
  - 241-AN-106
  - 241-AP-104
  - 241-AY-101
  - 241-AZ-101
  - 241-C-101
  - 241-C-108
  - 241-SY-102
- Data Quality Objectives (DQO)
  - A DQO on a Solubility Model is due to be released in April 2013.
  - A DQO for Tank C-112 Hard Heel Dissolution is due to be released in April 2013.

**Issues:**

None.

## TANK OPERATIONS CONTRACT (TOC) OVERVIEW

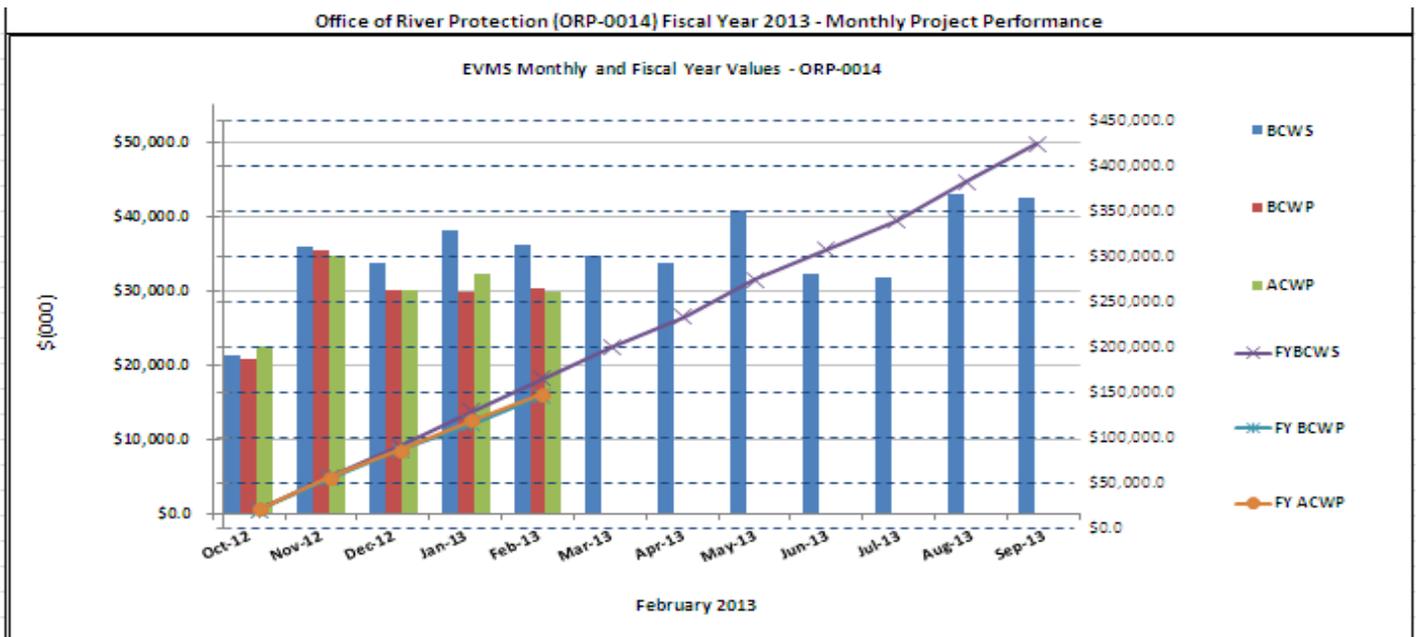
### Project Performance

The earned value performance reporting reflects the format, Work Breakdown Structure (WBS) reporting levels, and variance thresholds as agreed to with the Tank Farms Operations Contractor (TOC) for monthly performance reporting. The earned value analysis is not intended to be a measurement of performance against existing Tri-Party Agreement Milestones.

As of February 28, 2013, Washington River Protection Solutions LLC (WRPS) worked 6,648,722 hours (689 days) without a Lost Time Workday Injury and 322,410 hours (31 days) without a Recordable case. There were no Days Away, Restricted, or Transferred (DART) cases or Recordable cases in February.

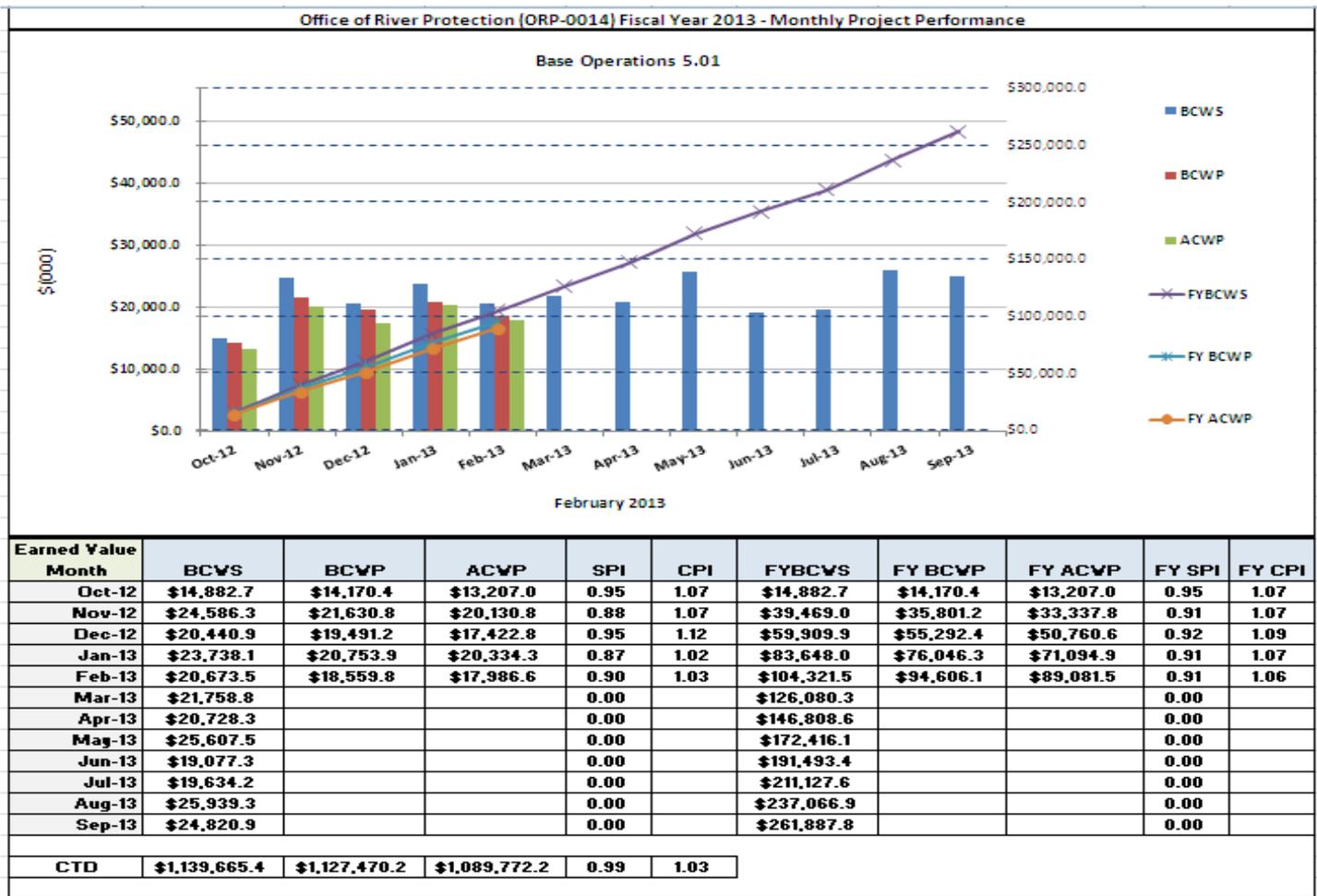
| WRPS Project Performance - (\$k) |             |             |             |            |           |      |      |             |             |           |
|----------------------------------|-------------|-------------|-------------|------------|-----------|------|------|-------------|-------------|-----------|
|                                  | BCWS        | BCWP        | ACWP        | SV         | CV        | SPI  | CPI  | BAC         | EAC         | VAC       |
| CM                               | 36,167.5    | 30,290.9    | 29,773.7    | (5,876.6)  | 517.2     | 0.84 | 1.02 |             |             |           |
| FYTD                             | 165,403.9   | 146,332.9   | 149,074.6   | (19,071.0) | (2,741.7) | 0.88 | 0.98 | 430,997.0   | 377,756.6   | 53,240.4  |
| CTD                              | 1,769,504.0 | 1,745,209.1 | 1,674,220.3 | (24,294.9) | 70,988.8  | 0.99 | 1.04 | 7,014,060.6 | 6,911,862.9 | 102,197.7 |

Red shaded cells indicates a SPI/CPI less than .90;  
 Green shaded cells indicate a SPI/CPI between .90 and .99; and  
 Blue shaded indicates a SPI/CPI greater than or equal to 1.0



| Earned Value Month | BCWS       | BCWP       | ACWP       | SPI  | CPI  | FYBCWS      | FY BCWP     | FY ACWP     | FY SPI | FY CPI |
|--------------------|------------|------------|------------|------|------|-------------|-------------|-------------|--------|--------|
| Oct-12             | \$21,350.5 | \$20,911.7 | \$22,382.9 | 0.98 | 0.93 | \$21,350.5  | \$20,911.7  | \$22,382.9  | 0.98   | 0.93   |
| Nov-12             | \$35,910.8 | \$35,319.2 | \$34,775.1 | 0.98 | 1.02 | \$57,261.3  | \$56,230.9  | \$57,158.0  | 0.98   | 0.98   |
| Dec-12             | \$33,795.4 | \$30,044.9 | \$29,940.1 | 0.89 | 1.00 | \$91,056.7  | \$86,275.8  | \$87,098.1  | 0.95   | 0.99   |
| Jan-13             | \$38,179.6 | \$29,766.1 | \$32,202.8 | 0.78 | 0.92 | \$129,236.3 | \$116,041.9 | \$119,300.9 | 0.90   | 0.97   |
| Feb-13             | \$36,167.5 | \$30,290.9 | \$29,773.7 | 0.84 | 1.02 | \$165,403.8 | \$146,332.8 | \$149,074.6 | 0.88   | 0.98   |
| Mar-13             | \$34,599.7 |            |            | 0.00 |      | \$200,003.5 |             |             | 0.00   |        |
| Apr-13             | \$33,773.8 |            |            | 0.00 |      | \$233,777.3 |             |             | 0.00   |        |
| May-13             | \$40,892.1 |            |            | 0.00 |      | \$274,669.4 |             |             | 0.00   |        |
| Jun-13             | \$32,288.5 |            |            | 0.00 |      | \$306,957.9 |             |             | 0.00   |        |
| Jul-13             | \$31,800.4 |            |            | 0.00 |      | \$338,758.3 |             |             | 0.00   |        |
| Aug-13             | \$42,997.4 |            |            | 0.00 |      | \$381,755.7 |             |             | 0.00   |        |
| Sep-13             | \$42,434.3 |            |            | 0.00 |      | \$424,190.0 |             |             | 0.00   |        |

|     |               |               |               |      |      |
|-----|---------------|---------------|---------------|------|------|
| CTD | \$1,769,504.0 | \$1,745,209.1 | \$1,674,220.3 | 0.99 | 1.04 |
|-----|---------------|---------------|---------------|------|------|



**Base Operations**

**Schedule Variance (\$1,653K):**

The unfavorable schedule variance is primarily due to:

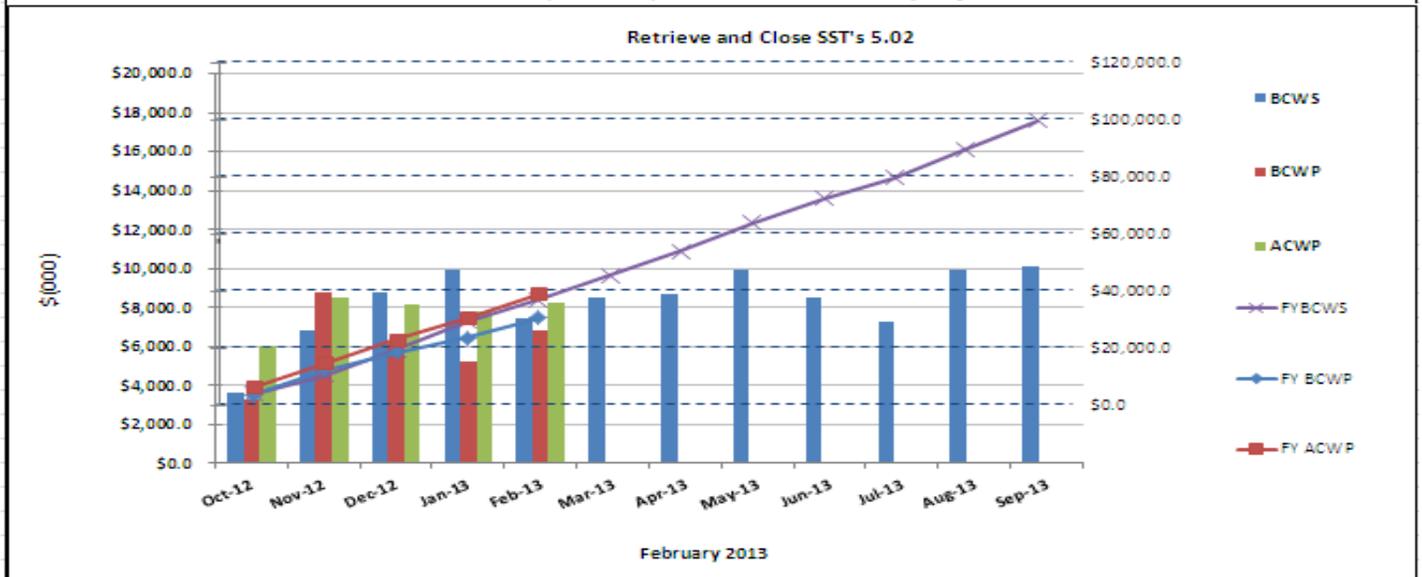
- One System Engineering had some delays in the development and completion of the Smart Plant Foundation software and site acceptance testing. These delays also impacted training and the planning of additional upgrades to the Smart Plant software.
- DST to DST Transfer had four transfer planned in FY 2013 which were completed in FY 2012, this resulted in performance “give-back”. The AN-101 to AP-104 transfer was also delayed due to the slower retrieval of SST C-101 and being behind schedule on C-107 retrieval.
- SST Integrity had delays to the SST structural analysis of record due to additional work required on the tank-to-tank interaction report. The release of the C-107 dome core forensics report is also behind schedule.

**Cost Variance \$1,258K:**

The favorable cost variance is primarily due to:

- 222-S analytical equipment inadvertently overstated performance on the receipt of the scanning electron microscope (SEM) equipment. The equipment was planned to arrive in February but due to delays by the vendor, the SEM is anticipated to be received in March.
- DST Integrity project increased efficiencies by completing the Extent of Condition-SY-103 100% Annulus Video workscope in parallel with the SY-103 UT activities.

Office of River Protection (ORP-0014) Fiscal Year 2013 - Monthly Project Performance



| Earned Value Month | BCWS               | BCWP               | ACWP               | SPI         | CPI         | FYBCWS     | FY BCWP    | FY ACWP    | FY SPI | FY CPI |
|--------------------|--------------------|--------------------|--------------------|-------------|-------------|------------|------------|------------|--------|--------|
| Oct-12             | \$3,620.6          | \$3,262.2          | \$6,009.2          | 0.90        | 0.54        | \$3,620.6  | \$3,262.2  | \$6,009.2  | 0.90   | 0.54   |
| Nov-12             | \$6,822.3          | \$8,789.7          | \$8,503.5          | 1.29        | 1.03        | \$10,442.9 | \$12,051.9 | \$14,512.7 | 1.15   | 0.83   |
| Dec-12             | \$8,754.6          | \$6,086.6          | \$8,117.5          | 0.70        | 0.75        | \$19,197.5 | \$18,138.5 | \$22,630.2 | 0.94   | 0.80   |
| Jan-13             | \$9,897.3          | \$5,259.1          | \$7,843.5          | 0.53        | 0.67        | \$29,094.8 | \$23,397.6 | \$30,473.7 | 0.80   | 0.77   |
| Feb-13             | \$7,491.3          | \$6,807.5          | \$8,239.1          | 0.91        | 0.83        | \$36,586.1 | \$30,205.1 | \$38,712.8 | 0.83   | 0.78   |
| Mar-13             | \$8,549.1          |                    |                    | 0.00        |             | \$45,135.2 |            |            | 0.00   |        |
| Apr-13             | \$8,677.0          |                    |                    | 0.00        |             | \$53,812.2 |            |            | 0.00   |        |
| May-13             | \$9,896.3          |                    |                    | 0.00        |             | \$63,708.5 |            |            | 0.00   |        |
| Jun-13             | \$8,470.0          |                    |                    | 0.00        |             | \$72,178.5 |            |            | 0.00   |        |
| Jul-13             | \$7,298.8          |                    |                    | 0.00        |             | \$79,477.3 |            |            | 0.00   |        |
| Aug-13             | \$9,902.0          |                    |                    | 0.00        |             | \$89,379.3 |            |            | 0.00   |        |
| Sep-13             | \$10,128.5         |                    |                    | 0.00        |             | \$99,507.8 |            |            | 0.00   |        |
| <b>CTD</b>         | <b>\$376,285.0</b> | <b>\$371,114.2</b> | <b>\$372,708.6</b> | <b>0.99</b> | <b>1.00</b> |            |            |            |        |        |

**Single-Shell Tanks**

Schedule Variance (\$2,441K):

The unfavorable schedule variance is primarily due to:

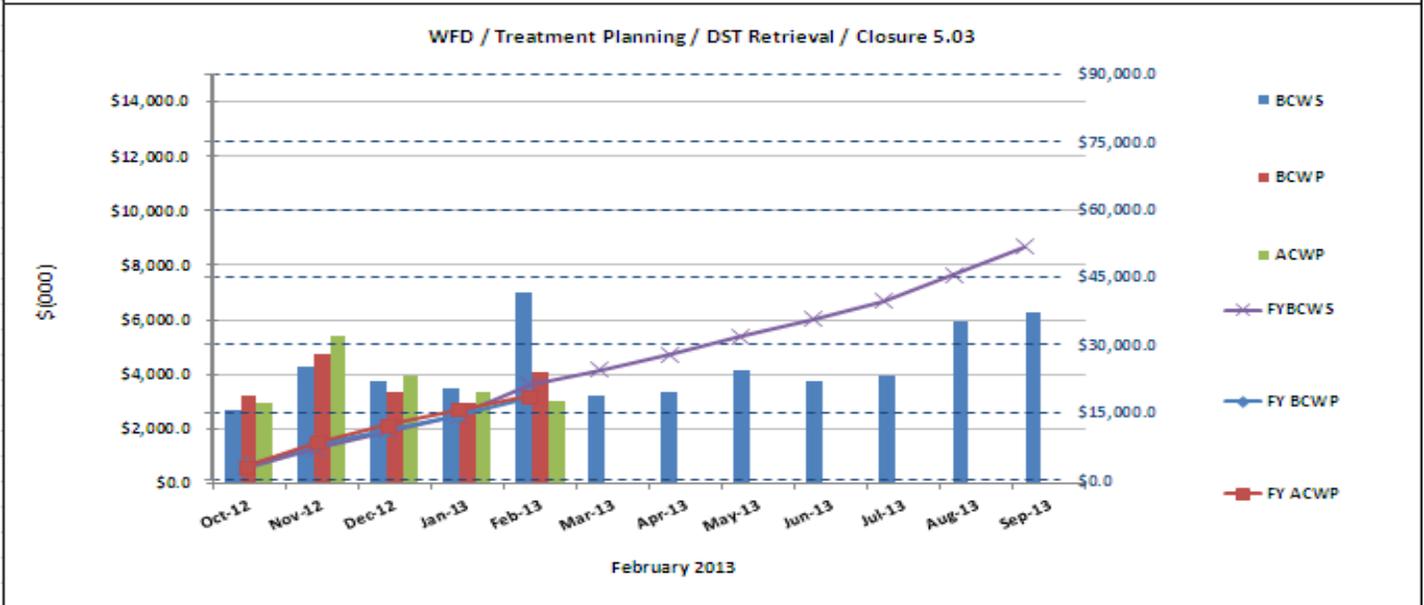
- C-102 Retrieval delays in starting waste retrieval, as operations had been realigned to start once C-101 bulk retrieval was complete instead of working in parallel as planned.
- C-101 Retrieval had a 3-week delay of retrieval operations to allow for maintenance and testing of the AN Farm exhauster.
- Retrieval technology development experienced fabrication delays of the MARS-V safety instrument system, cross-flow filter system, and temperature monitoring system because of educator plugging issues.
- C-105 Retrieval delays to the large riser cutting method and MARS-V installation.
- C-109 Retrieval delays with installation of the Off-Riser sampling System for post-retrieval sampling analysis. Resources are unavailable until the C-104 post retrieval and AN-101 sampling activities are complete.

Cost Variance (\$1,402K):

The unfavorable cost variance is primarily due to:

- Additional resources required to complete retrieval of C-101
- Additional resources and material required for single-shell tank C-110 retrieval activities
- Additional design and engineering resources needed to resolve comments on C-102 operation procedures and additional training of personnel for readiness verification.
- Increased labor and subcontract support for C-105 installation activities
- Additional subcontract and labor costs associated with resolution of MARS-V issues.

Office of River Protection (ORP-0014) Fiscal Year 2013 - Monthly Project Performance



| Earned Value Month | BCWS               | BCVP               | ACWP               | SPI         | CPI         | FYBCWS     | FY BCVP    | FY ACWP    | FY SPI | FY CPI |
|--------------------|--------------------|--------------------|--------------------|-------------|-------------|------------|------------|------------|--------|--------|
| Oct-12             | \$2,710.6          | \$3,212.7          | \$2,921.1          | 1.19        | 1.10        | \$2,710.6  | \$3,212.7  | \$2,921.1  | 1.19   | 1.10   |
| Nov-12             | \$4,289.4          | \$4,729.6          | \$5,435.7          | 1.10        | 0.87        | \$7,000.0  | \$7,942.3  | \$8,356.8  | 1.13   | 0.95   |
| Dec-12             | \$3,764.2          | \$3,316.5          | \$3,912.1          | 0.88        | 0.85        | \$10,764.2 | \$11,258.8 | \$12,268.9 | 1.05   | 0.92   |
| Jan-13             | \$3,476.4          | \$2,941.2          | \$3,378.3          | 0.85        | 0.87        | \$14,240.6 | \$14,200.0 | \$15,647.2 | 1.00   | 0.91   |
| Feb-13             | \$7,001.2          | \$4,060.6          | \$3,017.0          | 0.58        | 1.35        | \$21,241.8 | \$18,260.6 | \$18,664.2 | 0.86   | 0.98   |
| Mar-13             | \$3,183.1          |                    |                    | 0.00        |             | \$24,424.9 |            |            | 0.00   |        |
| Apr-13             | \$3,354.2          |                    |                    | 0.00        |             | \$27,779.1 |            |            | 0.00   |        |
| May-13             | \$4,153.5          |                    |                    | 0.00        |             | \$31,932.6 |            |            | 0.00   |        |
| Jun-13             | \$3,727.7          |                    |                    | 0.00        |             | \$35,660.3 |            |            | 0.00   |        |
| Jul-13             | \$3,945.8          |                    |                    | 0.00        |             | \$39,606.1 |            |            | 0.00   |        |
| Aug-13             | \$5,937.2          |                    |                    | 0.00        |             | \$45,543.3 |            |            | 0.00   |        |
| Sep-13             | \$6,262.4          |                    |                    | 0.00        |             | \$51,805.7 |            |            | 0.00   |        |
| <b>CTD</b>         | <b>\$235,118.8</b> | <b>\$228,310.1</b> | <b>\$196,491.7</b> | <b>0.97</b> | <b>1.16</b> |            |            |            |        |        |

**Waste Feed Delivery/Treatment/DST Retrieval Closure**

Schedule Variance (\$2,474K):

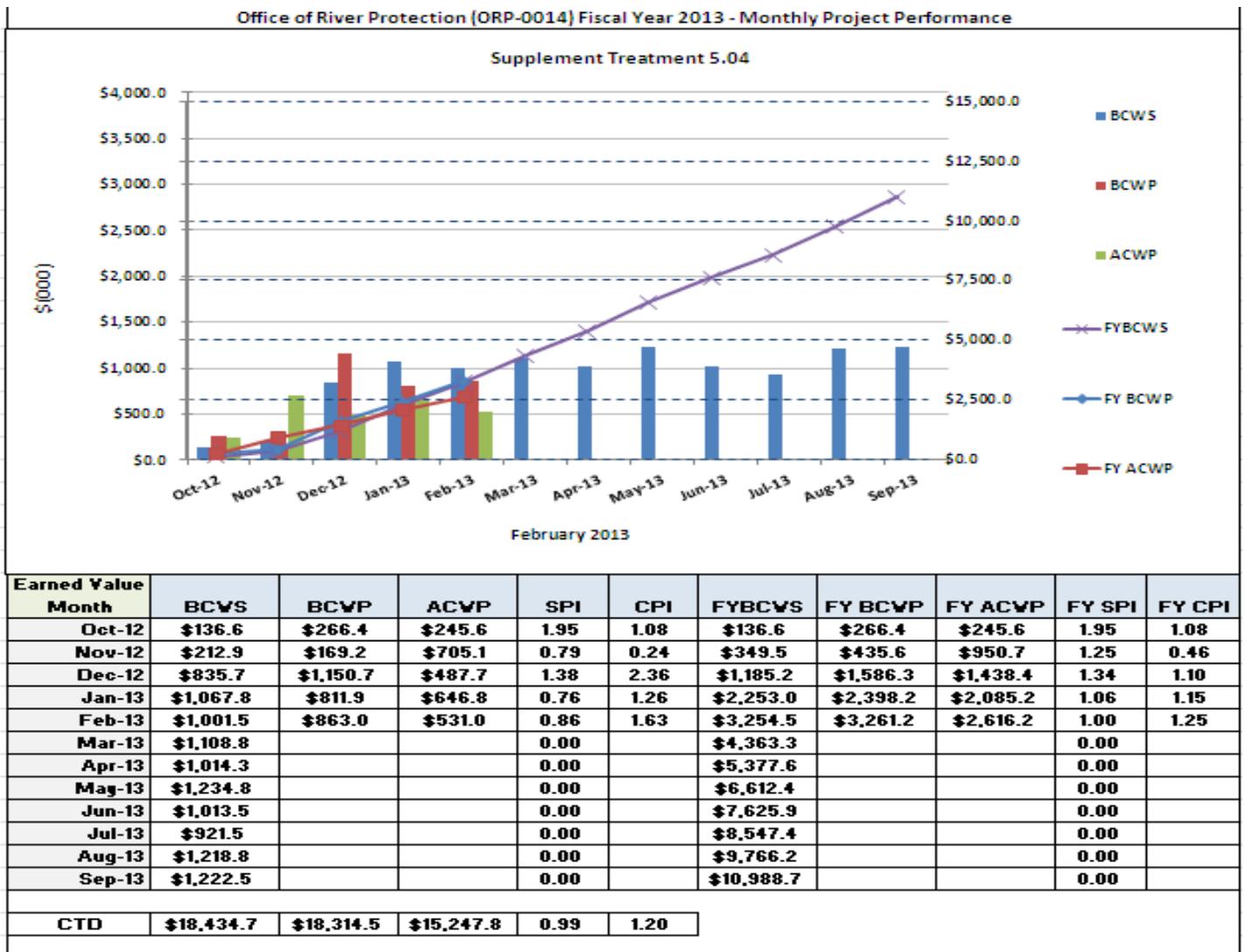
The unfavorable schedule variance is primarily due to:

- WFD System Performance due to delays associated with solids accumulation testing on the small-scale demonstration platform resulting from equipment failures, simulant mixing issues, issues with the development of analytical procedures, and attempts to perform in-house sample analysis to save costs
- RPP System Plan delays in selecting scenarios.

Cost Variance (\$871K):

The unfavorable cost variance is primarily due to:

- WFD system performance had a reduction in cost due to implementation of DNFSB 2010-2, pulse jet mixing change request.



*Supplemental Treatment*

- Nothing to report

## **WBS 5.2 Retrieve and Close Single Shell Tanks**

**M-045-20, Submit Interim Measure Investigation Work Plan to Ecology**, Due: 12/31/12, Status: Completed on 12/06/12. ORP will submit to Ecology for review and approval an interim measures investigation work plan for to vadose zone characterization at 241-TX Farm and 241-U Farm, and soil desiccation/contaminant removal proof-of-principal test at 241-SX Farm. The work plan will also be submitted with a TPA Change Package to establish milestone due date for M-045-22 and target dates for submittal of three secondary documents, see M-045-22-T01, -T02, and -T03. Added per TPA change package M-45-12-04. ORP submitted this work plan and a draft TPA change package for dates for M-045-22 and its targets on 12/06/12 via letter 12-TF-0054. Ecology responded via 12-NWP-190 authorizing ORP to begin field work while Ecology completed their review of the Work Plan. Ecology provided comments on the Work Plan in the January 2013 TPA Project Managers' meeting. Comments have been resolved and the revised Work Plan and final TPA change package were transmitted to Ecology via 13-TF-0014. Ecology approved the Work Plan via 13-NWP-030 on 03/27/13, and provided a signed TPA change package on 04/01/13.

**M-045-21, Submit for Review and Approval a Sampling and Analysis Plan to Ecology for Soil Samples for 241-TX Tank Farm Investigation**, Due: 03/31/13, Status: Completed on 03/11/13. Added per TPA change package M-45-12-04. The Sample Analysis Plan was finalized and was transmitted to Ecology via ORP letter 13-TF-0013 on 03/11/13.

**M-045-22, Review M-045-22-T03 Report and Determine Path Forward**, Due: 09/30/2014 based on M-045-20 TPA Change Package M-45-12-05, Status: On Schedule. This ORP/Ecology decision point will determine whether to continue with soil desiccation/contaminant removal testing and other interim measures, and if remaining work in Milestone M-045-92 should be modified. ORP submitted a TPA change package M-45-12-05 adding dates for M-045-22 and its targets with the revised Work Plan via letter 13-TF-0014. Ecology approved the TPA change package on 04/01/13.

**M-045-22-T01, Submit Results of Vadose Zone Characterization of 241-TX to Ecology**, Due: 09/30/2014 based on M-045-20 TPA Change Package M-45-12-05, Status: On Schedule.

**M-045-22-T02, Submit Results of Vadose Zone Characterization of 241-U to Ecology**, Due: 04/30/2014 based on M-045-20 TPA Change Package M-45-12-05, Status: On Schedule.

**M-045-22-T03, Submit SX Soil Desiccation/Contaminate Removal Tech Results to Ecology**, Due: 07/31/2014 based on M-045-20 TPA Change Package M-45-12-05, Status: On Schedule.

**M-045-56I, Complete Implementation of Agreed to Interim Measures**, Due: 07/31/13, Status: On Schedule

**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 WMAS (pending the CMS report, milestone M-45-58, and implementation of other interim corrective measures)**, Due: TBD, Status: On Schedule

**M-045-61, Submit to Ecology for review and approval as an Agreement primary document a Phase 2 RFI/CMS Report for WMA C, Due: 12/31/2014, Status: To Be Missed. Please see Issues.**

**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: 06/30/2015, Status: To Be Missed. Please see Issues.**

**M-045-92, DOE and Ecology will establish selection criteria for installation of additional interim barriers at additional WMAs (beyond the T-106 and TY barriers), Due: 09/30/2017, Status: On Schedule. This milestone date has been modified according to M-45-12-04 and the decision to move forward with construction/design of additional barriers dependent on discussions per M-045-22.**

**M-045-92N, Construct Barriers 1 and 2 in 241-SX Farm Due: 10/31/15, Status: On Schedule. The decision to move forward with construction/design of additional barriers is dependent on discussions per M-045-22.**

**M-045-92O, Submit a Final Design and Monitoring Plan for Interim Barrier 3 Due: 06/30/15, Status: On Schedule. The decision to move forward with construction/design of additional barriers is dependent on discussions per M-045-22.**

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

- Provided the revised interim measures investigation Work Plan for M-045-20 and final TPA change package for M-045-22 and its targets via ORP letter 13-TF-0014 on 03/18/2013.
- Automated data collection systems for T-Farm and TY Farm interim barrier monitoring continue gathering data.
- Direct push field work continues south of SX farm under the M-045-20 work plan.
- The Sample Analysis Plan for 241-TX Farm was transmitted to Ecology via ORP letter 13-TF-0013 on 03/11/13.
- Direct push equipment was mobilized in C Farm to begin pushing near the C-200 tanks to place deep electrodes for resistivity evaluations.
- The TY Interim Surface Barrier Monitoring Plan was revised per approved TPA Change Notice 2012-09.

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

- Provide a summary report of the 2012 T and TY barrier monitoring data.
- Initiate direct push field work in TX farm under the M-045-20 work plan.
- Initiate electrical resistivity field work in U farm under the M-045-20 work plan.
- Complete direct push field work near the C-200 tanks per the WMA C Phase 2 RFI/CMS Work Plan.
- Perform electrical resistivity field work near the C-200 tanks per the WMA C Phase 2 RFI/CMS Work Plan.

## SST Retrieval and Closure Program

**M-045-82, Submit complete permit mod requests for Tiers 1, 2, & 3 of the SST, Due:** 9/30/2015 Status: To Be Missed. Please see Issues.

**M-045-84, Complete negotiations of TPA interim MS for closure of second WMA, Due:** 1/31/2017, Status: On Schedule

**M-045-83, Complete the closure of WMA C, Due:** 6/30/2019, Status: On Schedule

**M-045-85, Complete negotiations of TPA interim MS for closure of remaining WMAs, Due:** 1/31/2022, Status: On Schedule

**M-045-70, Complete waste retrieval from all remaining SSTs, Due:** 12/31/2040, Status: On Schedule

**M-045-00, Complete Closure of all Single Shell Tank Farms, Due:** 1/31/2043, Status: On Schedule

**M-045-86, Submit retrieval data report to Ecology for 19 tanks retrieved, Due:** TBD (12 months after retrieval certification), Status: On Schedule. The CD Retrieval Completion Certification for SST Tank C-104 was sent to Ecology on 03/21/13 via ORP letter 13-TF-0018.

### Significant Past Accomplishments:

- Completed post-retrieval sampling, analysis and reporting of results for tank C-108 in support of the M-045-86 retrieval data report.
- Completed post-retrieval sampling of tank C-104 in support of the M-045-86 retrieval data report.
- See discussions above and related discussions in Consent Decree report.

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

- Perform post-retrieval logging of drywells near C-108 in support of the M-045-86 retrieval data report.
- Continue analysis of the post-retrieval samples from tank C-104.
- See discussions above and related discussions in Consent Decree report.

### Issues:

The WMA-C performance assessment (PA) is not currently funded in fiscal year 2013. ORP has reported previously that the WMA-C PA would need to be funded by March 31, 2013 in order to maintain milestone schedule. As a result of the continued non-funding of the WMA-C PA, TPA Milestones M-045-61, M-045-62, and M-045-82 are now To Be Missed.

ORP began discussions with Ecology about a TPA project manager-level agreement to determine an alternative path forward for M-045-61 and M-045-62 on 03/14/13. ORP has provided 03/14/13 meeting minutes and a draft TPA project manager agreement to Ecology for their review and approval.

ORP and Ecology will meet separately to discuss TPA milestone M-045-82 for the Tier 1, 2, and 3 WMA C SST closure submittal. ORP and Ecology will discuss impacts to this work scope and the potential for a Tier 1 submittal.

## Tank Waste Retrieval Work Plan (TWRWP) Status

| Tank  | TWRWP                 | Expected Revisions | Retrieval Technology                                 | Second Technology             | Third Technology    |
|-------|-----------------------|--------------------|--|-------------------------------|---------------------|
| C-101 | RPP-22520,<br>Rev. 7  | Complete           | MRS (per 10/7/10 agreement, to be Modified Sluicing) | High-Pressure Water with ERSS | -                   |
| C-102 | RPP-22393,<br>Rev. 6A | In Process         | Modified Sluicing                                    | High-Pressure Water with ERSS | -                   |
| C-104 | RPP-22393,<br>Rev. 6A | Complete           | Modified Sluicing                                    | Chemical Dissolution          | -                   |
| C-105 | RPP-22520,<br>Rev. 7  | Complete           | MARS-V   | MARS-High Pressure Water      | -                   |
| C-107 | RPP-22393,<br>Rev. 6A | Complete           | MARS-S   | MARS-High Pressure Water      | -                   |
| C-108 | RPP-22393,<br>Rev. 6A | Complete           | Modified Sluicing                                    | Chemical Dissolution          | -                   |
| C-109 | RPP-21895,<br>Rev. 5  | Complete           | Modified Sluicing                                    | Chemical Dissolution          | -                   |
| C-110 | RPP-33116,<br>Rev. 2  | Complete           | Modified Sluicing                                    | Mechanical Waste Conditioning | High Pressure Water |
| C-111 | RPP-37739,<br>Rev. 1  | In process         | Modified Sluicing                                    | None                          | -                   |
| C-112 | RPP-22393,<br>Rev. 6A | In process         | Modified Sluicing                                    | Chemical Dissolution          | -                   |

### Significant Accomplishments:

None.

### Significant Planned Activities in the Next 6 Months:

Work with Ecology on updates to TWRWPs RPP-22520 and RPP-37739 for tanks C-105 and C-111.

### 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 (RAI) 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: 9/30/22 Status: On schedule. Change package M-45-11-04 replaced tank S-102 with tank A-103 and changed to milestone completion date for M-045-15 to 09/30/2022.

**M-045-15A, Embedded Milestone, Submit a Retrieval Data Report Pursuant to Agreement Appendix I**, Due: 9/30/22, Status: On schedule. Updated with tank A-103 and due date of 9/30/22 per M-45-11-04 Change Package.

**M-045-15D, Embedded Milestone, if appropriate, DOE will request an exception to waste retrieval criteria pursuant to Agreement Appendix H**, Due: 9/30/22, Status: On Schedule. Updated with A-103 tank and due date of 9/30/22 per M-45-11-04 Change Package.

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

Change Package M-45-11-04 was signed by ORP and Ecology on 04/19/11.

#### **Significant Planned Activities in the Next Six Months and Issues:**

None

### **Tank 241-S-112**

**M-045-13, Interim Completion of Tank S-112 SST Waste Retrieval and Closure Demonstration Project**, Due: TBD (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: TBD 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.

#### **Significant Planned Activities in the Next Six Months or Issues:**

None.

## **WASTE TREATMENT AND IMMOBILIZATION PLANT (WTP) PROJECT**

| <b>Number</b> | <b>Title</b>                                     | <b>Due Date</b> | <b>Status</b> |
|---------------|--|-----------------|---------------|
| M-062-01Z     | Submit Semi-Annual TPA Project Compliance Report | 01/31/2013      | Complete      |
| M-062-01AA    | Submit Semi-Annual TPA Project Compliance Report | 7/31/2013       | On Schedule   |

**\*SEE THE APRIL 2013 ORP CONSENT DECREE 08-5085-FVS  
MONTHLY SUMMARY REPORT FOR WTP FACILITY-SPECIFIC  
INFORMATION**