

**FINAL**

Office of River Protection

Tri-Party Agreement

Project Summary Report

August 18, 2011



Office of River Protection  
Tri-Party Agreement Milestone Review Meeting  
August 18, 2011

Page	Topic	Leads	Time
TPA 1 / CD 1	Statistics / Status	Woody Russell / Dan McDonald / Jeff Lyon	8:30
TPA 6	Single-Shell Tank Corrective Action; M-45, -50, -60	Bob Lober / Jeff Lyon	8:35
TPA 8 / CD 5	Single-Shell Retrieval and Closure Program TPA Milestones Status; M-45-00 series, <ul style="list-style-type: none"> <li>- Tank in Appendix H Status</li> <li>- C-Farm Critical Path</li> <li>- Tanks with Individual Milestones</li> <li>- Double-Shell Tank Closure</li> <li>- 242-A Evaporator Status</li> </ul> SST Retrieval and Closure CD Milestones and TWRWP Status; D-00B series	Chris Kemp / Dan Knight / Jeff Lyon	8:50
TPA 18	SST Integrity Assurance; M-45-91	Jeremy Johnson / Michelle Hendrickson	9:10
TPA 21	In Tank Characterization and Summary	Jeremy Johnson / Michael Barnes	9:15
TPA 22	Tank Operations Contract (TOC) Overview	Dan Knight / Jeff Lyon	9:20
TPA 27	Acquisition of New Facilities; M-90-00; M-47-00	Janet Diediker / Jeff Lyon / Dan McDonald	9:35
TPA 28	Supplemental Treatment and Part B Permit Applications; M-62-00, -20, -30, -45	Steve Pfaff / Jeff Lyon / Dan McDonald	9:40
TPA 29	System Plan; M-62-40	Dabrisha Smith / Jeff Lyon / Dan McDonald	9:45
<b>BREAK</b>			
TPA 30 / CD 8	WTP Overall TPA and CD Summary and Milestones Status; M-62-01; M-62-49; D-00A-01, -06, -17	Delmar Noyes / Dan McDonald	10:00
TPA 31 / CD 10	WTP Pretreatment (PT) Facility; D-00A-13, -14, -15, -16, -19	Wahed Abdul / Dan McDonald	10:10
TPA 33 / CD 13	WTP High-Level Waste (HLW) Facility; D-00A-02, -03, -04, -21	Jason Young / Dan McDonald	10:20
TPA 34 / CD 16	WTP Low-Activity Waste (LAW) Facility; D-00A-07, -08, -09	Gary Olsen / Dan McDonald	10:30
TPA 36 / CD 19	WTP Analytical Laboratory (LAB); D-00A-05		10:35
TPA 38 / CD 22	WTP Balance of Facilities (BOF); D-00A-12		10:40

Fiscal Year 2011 Tri-Party Agreement Milestone Status													
Milestone No.	Description	Due Date	Date Completed	On Schedule	At Risk	Recoverable	To Be Missed	Missed	In Litigation	Deleted	In Program Planning	In Abeyance	Dispute Resolution
M-062-40A	Select a Minimum of 3 scenarios	10/31/10	10/27/10										
D-001-00-R46	Quarterly Report	10/31/10	10/28/10										
M-045-100	Submit to Ecology an Agreement Primary Document a Catch Tank "Assumed Leak" Response Plan.	12/28/10	12/28/10										X
M-045-101	Submit to Ecology as an Agreement Primary Document a Report on all Catch Tanks and Pipelines Used for SST Operations	12/28/10	12/28/10										
M-045-91A	Submit an Agreement Change Package with Interim Milestones to Implement the Panel's Recommendations M-045-91	12/27/10	09/27/10										
M-045-92D	Complete Negotiations to Schedule Remaining 4 Additional Barriers	12/31/10	12/07/10										
M-045-92E	Meet Yearly on Performance of Barrier	12/31/10	12/07/10										

**Fiscal Year 2011 Tri-Party Agreement Milestone Status**

Milestone No.	Description	Due Date	Date Completed	On Schedule	At Risk	Recoverable	To Be Missed	Missed	In Litigation	Deleted	In Program Planning	In Abeyance	Dispute Resolution
M-062-20	Complete All 28 Issues in Independent WTP Flowsheet & Throughput Assessment	12/31/10	08/20/10										
M-045-80	Complete those Portions of C-200 Closure Demonstration Plan Necessary to Complete Closure Plan Development for SST System	01/31/11	12/28/10										
M-062-01V	Submit Semi-Annual Project Compliance Report	01/31/11	01/27/11										
D-001-00-R47	Quarterly Report	01/31/11	01/28/11										
M-045-91G-T05	Provide Report of the Visual Inspections of 12 SSTs in Table 3.3	03/31/11	03/11/11										
M-045-92K	Barrier 1 Design/Monitoring Approval from Ecology	06/30/11	05/19/11										
M-036-01A	Submit to EPA & Ecology Lifecycle, Scope, Schedule & Cost for Hanford Site (RL is DOE Lead)	07/25/11	07/21/11										

**Fiscal Year 2011 Tri-Party Agreement Milestone Status**

Milestone No.	Description	Due Date	Date Completed	On Schedule	At Risk	Recoverable	To Be Missed	Missed	In Litigation	Deleted	In Program Planning	In Abeyance	Dispute Resolution
M-045-56G	Ecology and DOE Agree to Meet, at a Minimum, Yearly (by July)	07/31/11	07/13/11										
M-062-01W	Submit Semi-Annual Project Compliance Report	07/31/11	07/28/11										
M-045-91C	Implement DQO Process, Test Plan to Evaluate the Chemistries	09/30/11		X									
M-045-91G-T01	Provide AOR Final Doc. For SSTs on 530,000 Gallon Tanks	09/30/11		X									
M-045-13	Interim Completion of Tank S-112 SST Waste Retrieval and Closure	TBD [In accordance with M-045-84 or -85]		X									
M-045-13E	Complete Negotiations for Interim Milestones for Closure of S-112	TBD [In accordance with M-045-84 or -85]		X									

### Fiscal Year 2012 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Date Completed	On Schedule	At Risk	Recoverable	To Be Missed	Missed	In Litigation	Deleted	In Program Planning	In Abeyance	Dispute Resolution
M-062-30	Complete Negotiations Establishing Milestones for Near-Term Actions	10/25/11								X 07/18/11			
M-062-40B	Submit System Plan	10/31/11		X									
M-062-49	Submit Report to Ecology Demonstrating WTP Design Meets Vit. Criteria	10/31/11		X									
M-045-91B	Submit a Sampling and Analysis Plan to Ecology	12/30/11		X									
M-045-92F	Meet Yearly on Performance of Barrier	12/31/11		X									
M-045-91G-T02	Provide AOR Final Doc. For SSTs on 750,000 Gallon Tanks	01/31/12		X									
M-045-91F-T01	Provide Report of the Liquid Leak Rate Assessments	01/31/12		X									
M-062-01X	Submit Semi-Annual Project Compliance Report	01/31/12		X									
M-045-91D	Submit Analytical Test Plan for Cores Removed from C-107 Plug	03/31/12	06/27/11										

**Fiscal Year 2012 Tri-Party Agreement Milestone Status**

Milestone No.	Description	Due Date	Date Completed	On Schedule	At Risk	Recoverable	To Be Missed	Missed	In Litigation	Deleted	In Program Planning	In Abeyance	Dispute Resolution
M-045-91G-T06	Provide Report of the Visual Inspection of 12 SSTs per criteria in M-045-91G-T05	03/31/12		X									
M-045-92M	Barrier 2 Design/Monitoring Approval from Ecology	06/30/12	05/19/11										
M-047-06	Complete Negotiation of No More Than 2 Interim Milestones	06/30/12		X									
M-062-01Y	Submit Semi-Annual Project Compliance Report	07/31/12		X									
M-045-91G-T03	Provide AOR Final Doc for SSTs on 1,000,000 Gallon Tanks	09/30/12		X									

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

**M-045-58, Submit to Ecology for Review and Approval as an Agreement primary document, a phase 2 CMS Master Work Plan, Due: 12/31/08 Status: Complete.**

Master Work Plan is in the Primary document revision process. ORP transmitted its response to Ecology on August 18, 2010. Ecology extended review of comment responses to October 29, 2010. Ecology requested at the October PMM a two week extension from October 27, 2010. ORP acknowledged that Ecology's comment response will be considered in abeyance until DOE-ORP, Ecology, and EPA complete their negotiation of the AIP applicable to Appendix I. Ecology assumed that negotiations would be done December 24, 2010. They have been extended.

**M-045-60, Submit to Ecology for review and approval as an Agreement primary document DOE's Phase 2 RFI/CMS Work Plan and Sampling and Analysis Plan (SAP) for WMA C, Due: 12/31/08, Status: Complete.**

ORP and Ecology continue to meet monthly to identify and manage changes in the work plan. The last meeting was held July 29, 2011. Meeting minutes for the June 23, 2011 sessions have been signed by the parties and have been entered into the TPA administrative record.

**M-045-56G, Complete Implementation of Agreed to Interim Measures, Due: 07/31/11, Status: On Schedule.** Meeting for 2011 was held on July 13, 2011. Draft meeting minutes have been developed, and will be signed by the parties and entered into the TPA administrative record.

**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: 12/31/14, Status: On Schedule**

**M-045-62, Submit to Ecology for review and approval as an Agreement primary document a Phase 2 Corrective Measures Study Report for WMA C, Due: 06/30/2015, Status: On Schedule**

**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: 9/30/2016, Status: On Schedule.**

**M-045-92K, Barrier 1 Design/Monitoring Approval from Ecology, Due: 6/30/2011, Status: Complete.**

**M-045-92M, Barrier 2 Design/Monitoring Approval from Ecology, Due: 6/30/2012, Status: Complete.** If negotiated, complete installation of 4 additional interim barriers at a rate of one per year, with the first being completed by October 31, 2012. Prior to beginning construction and at least sixteen months before construction is to be complete, DOE will submit to Ecology a final design and monitoring plan for each interim barrier. The barrier design and monitoring plans will

be consistent with those developed for WMA T and TY unless DOE and Ecology agree otherwise. Ecology will authorize construction upon approval of these submittals. Ecology letter, 11-NWP-044, dated May 19, 2011, approved the actions associated with these milestones. ORP sent letter 11-TF-064 to ECY on June 15, 2011 to formally close these milestones.

**M-045-92F, DOE and Ecology will meet yearly to review the monitoring data, agree to changes in monitoring (if needed) and assess the performance of the demonstration barrier,**  
Due: 12/31/2011, Status: On Schedule

**Significant Past Accomplishments:**

1. T-Farm interim barrier monitoring continues.
2. TY Interim Barrier monitoring continues.
3. Continued direct push characterization in C Farm at various planned locations and completed the angled direct push campaign beneath tank C-101
4. Continued the joint process with Ecology and other regulatory agencies and stakeholders to define the inputs, approaches, assumptions and methods that will be used for development of a performance assessment for Waste Management Area C.
5. Continued remediation technology assessments in support of a Corrective Measures Study for WMA C.
6. Completed analysis of 3-D Surface Geophysical Exploration (SGE) data set for UPR-200-E-82 in C farm.
7. Electrical resistivity data was collected from surface and deep electrodes in eastern BY farm and is being analyzed.
8. Continued direct push campaign in S-farm in support of a future interim barrier.

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

1. Continue direct push campaign in C Farm.
2. Continue direct push campaign in S-Farm in support of a future interim barrier.
3. Complete 3-D SGE data analysis in eastern BY farm.
4. Complete resistivity data analysis for 3-D SGE characterization of UPR-82 in C Farm.
5. Continue remediation technology assessments in support of a Corrective Measures Study for WMA C.
6. Perform additional updates to WMA C RFI/CMS workplan based on requested changes from Ecology.
7. Initiate construction of the evapotranspiration basin for the interim surface barriers for SX farm.

**Issues:**

ORP is in internal discussions in consideration of Ecology's request for additional RFI/CMS milestones.

## SST Retrieval and Closure Program

**M-045-100, Submit as a primary document a Catch Tank "assumed leak response plan,** Due: 12/27/10, Status: In Dispute. Transmitted from ORP to ECY via letter 10-TPD-176 on 12/28/10. Ecology issued a Notice of Violation on May 24, 2011, via letter 11-NWP-038, indicating that the deliverable did not fulfill the milestone. The ORP initiated dispute resolution on June 1, 2011, via letter 11-TF-065. ORP also requested an extension, to August 31, 2011, of the comment resolution period, via letter 11-TF-067.

**M-045-101, Submit to Ecology as a primary document a report on all catch tanks and associated pipelines in the SST System Part A,** Due: 12/27/10, Status: Complete. Transmitted from ORP to Ecology via letter 10-TPD-176 on 12/28/10. Comments were transmitted from Ecology to ORP on May 27, 2011, via letter 11-NWP-048. ORP requested an extension, to August 31, 2011, of the comment resolution period, via letter 11-TF-067.

**M-045-80, Complete those portions of C-200 Closure Demonstration Plan,** Due: 1/31/2011 Status: Complete. Four primary documents transmitted from ORP to Ecology via letter 10-TPD-166 on 12/28/10. Comments on three of the four documents were transmitted from Ecology to ORP on May 27, 2011, via letters 11-NWP-045, 11-NWP-047, and 11-NWP-051. ORP requested an extension, to September 25, 2011, of the comment resolution period for those three documents via letter 11-TF-067. Ecology requested additional time to review *Radioactive Waste Determination Process Plan for Waste Management Area C Tank Waste Residual* via 11-NWP-049.

**M-045-81, Implement & complete all remaining activities in C-200 Closure Demonstration Plan and provide a report of the results of those activities,** Due: 9/30/2014, Status: On Schedule. The first deliverable specified in the closure demonstration plan was formally transmitted from ORP to ECY via letter 10-TPD-166 on 12/28/10. Comments were transmitted from Ecology to ORP on June 1, 2011, via letter 11-NWP-052. ORP requested an extension, to September 25, 2011, of the comment resolution period for those three documents via letter 11-TF-067.

**M-045-82, Submit complete permit mod requests for Tiers 1, 2, & 3 of the SST,** Due: 9/30/2015 Status: On Schedule

**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**

**Significant Past Accomplishments:**

- See discussions above and related discussions in Consent Decree report.

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

- See discussions above and related discussions in Consent Decree report.
- Work to discuss and resolve issues and comments associated with deliverables for M-45-100, 101, 80, and 81.

**Issues:**

- M-045-100 Notice of Violation (NOV): Ecology has given ORP an NOV (letter 11-NWP-038, dated 5/24/11) for a determination that the primary document for the Single-Shell Tank System Catch Tank Assumed Leak Response Plan (RPP-RPT-48438, Revision 0) does not fulfill the intent of milestone M-045-100. ORP initiated dispute resolution on June 1, 2011, via letter 11-TF-065.
- Tank Farm Soil Cleanup: Unsigned draft Tentative Agreement and unsigned draft Change Packages C-11-01 (for WMA C soil to be addressed as RCRA/CERCLA Past Practice Unit) and M-45-11-02 (title changes to M-045-61 and -62 to allow CAD/ROD process) were presented to Ecology on 03/29/11. Ecology preference is to address soils through a 3116 and RCRA process.
- The Richland Office of USDOE has proposed an IS-1 alternate to the planned deliverable, as we understand the "IS-1 Common Vision" discussion on 1-18-11. IS-1 requires the delivery of an RFI/CMS that would include Tank Farm Pipelines. This should be included in the critical path as well.
- C-106 Closure Plan approval and SST radiological Categorical Notice of Construction (NOC) Phase 3 (closure) and a toxics categorical NOC application are pending completion of the Tank Closure and Waste Management Environmental Impact Statement (EIS) and associated Record of Decision (ROD); forecast completion for the final EIS is in the Winter of 2011/2012.
- USDOE is delaying the final numeric modeling supporting the WMA C performance assessment to align the timing with completion of the Tank Closure and Waste Management EIS. Impacts of this delay are being incorporated into the critical path schedules.

## **Tank in Appendix H. Status - Single Shell Waste Retrieval Criteria**

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

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

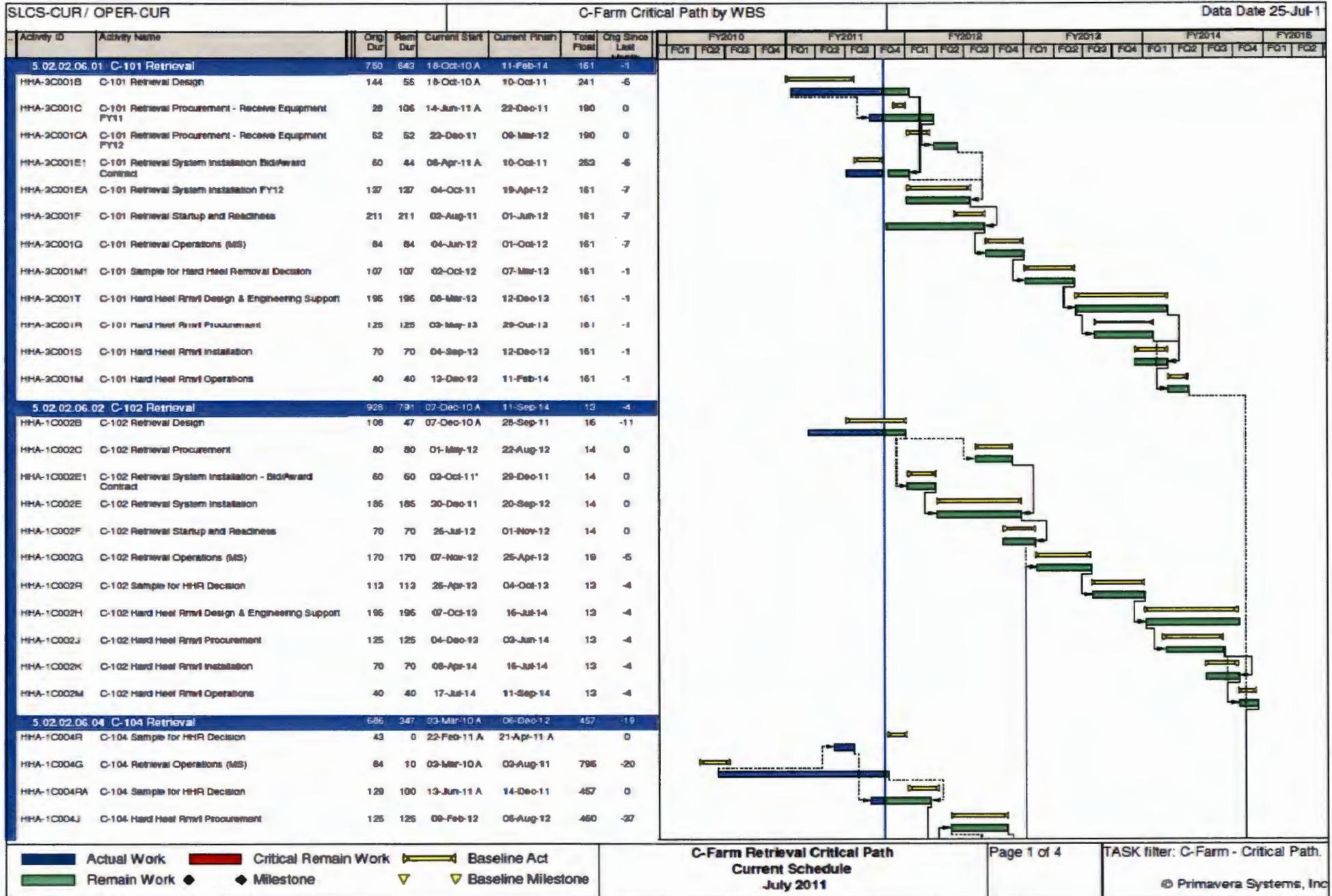
None

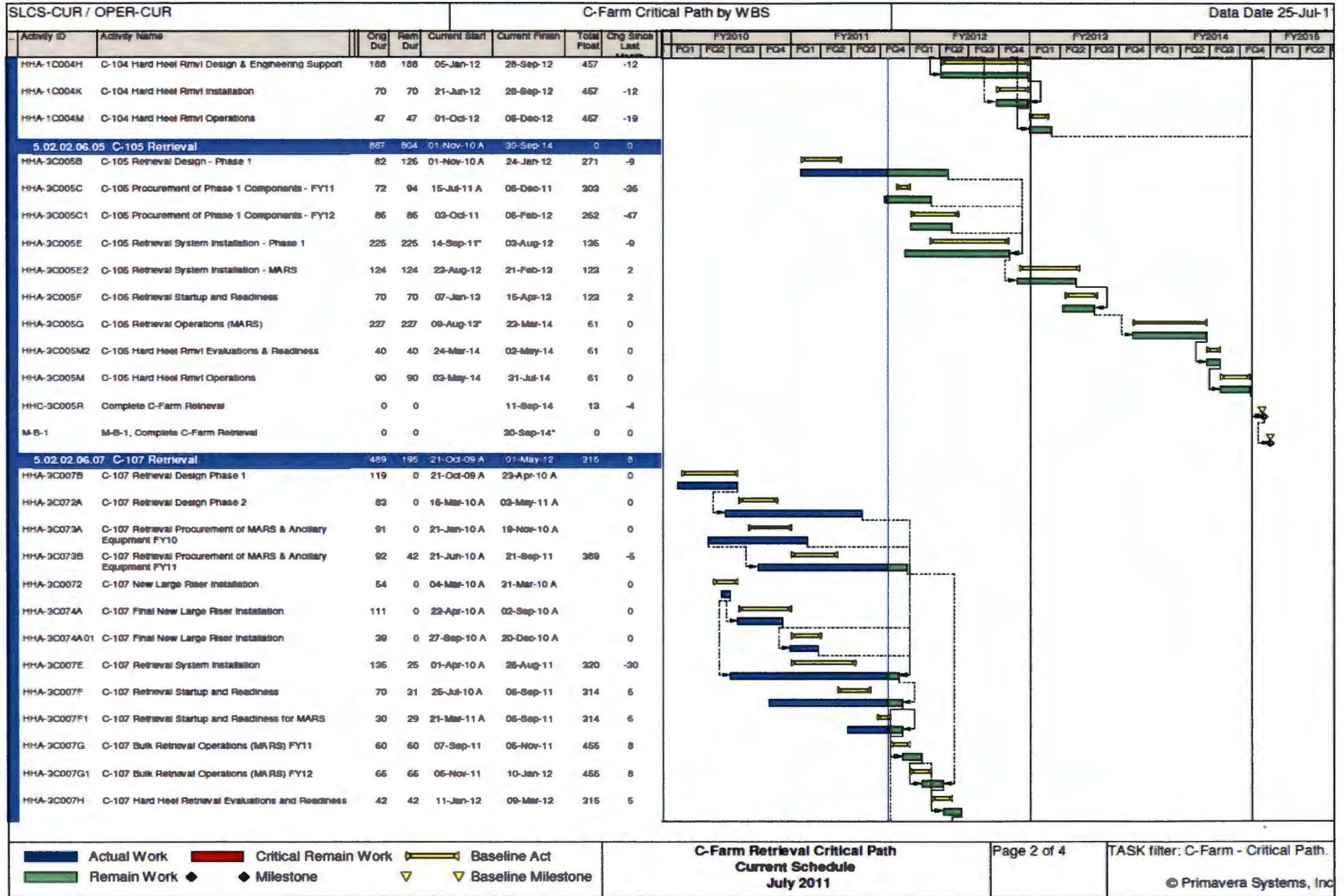
#### **Significant Planned Activities in the Next Six Months:**

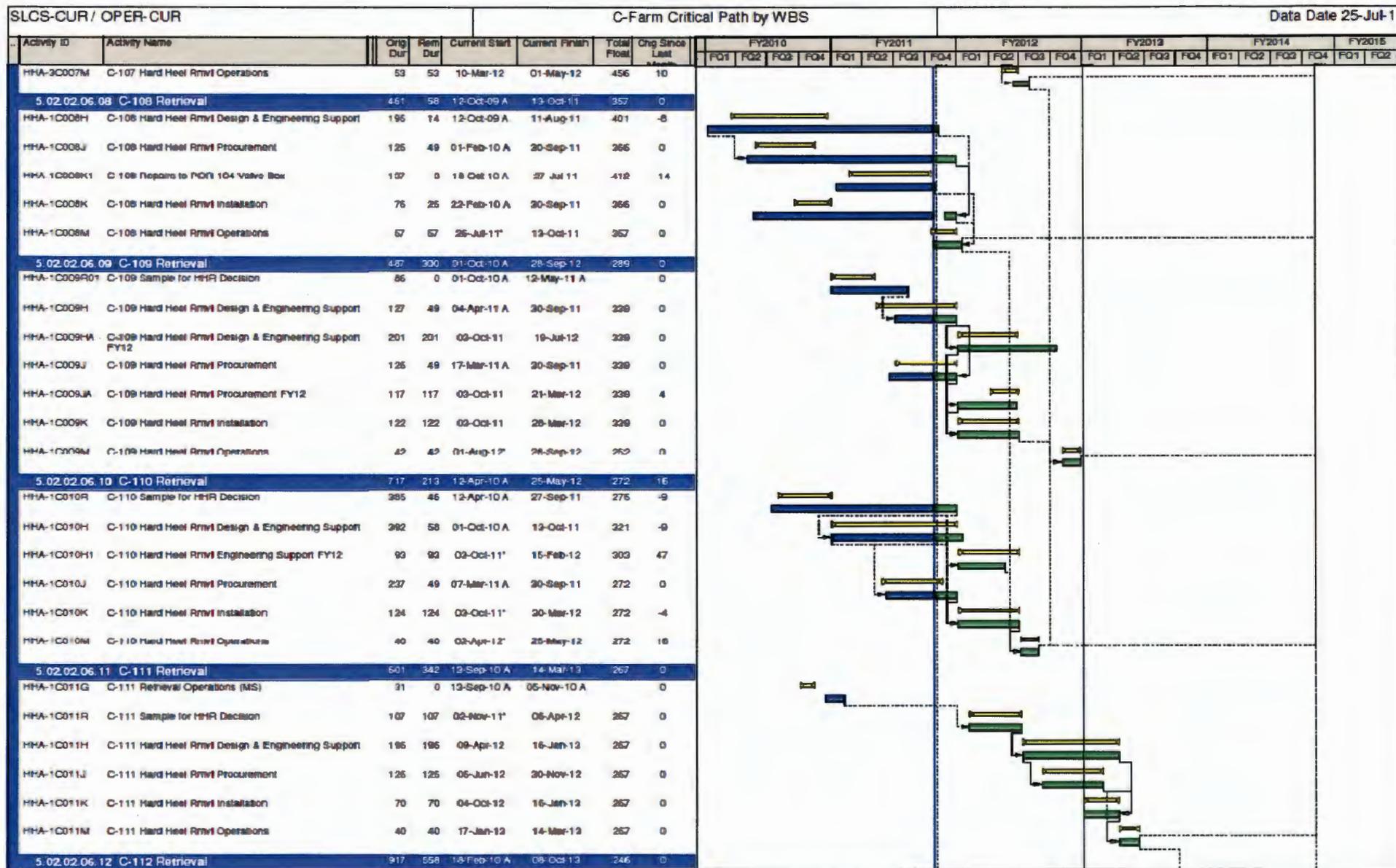
- Continue U.S. Nuclear Regulatory Commission (NRC) review of the C-106 exception request. A Request for Additional Information (RAI) was received from the NRC in February 2009. (It has been discussed with the NRC that much of the additional information requested is dependent upon development of C-Farm residual waste PA and, therefore, cannot be provided until the PA is published.)

#### **Issues:**

None







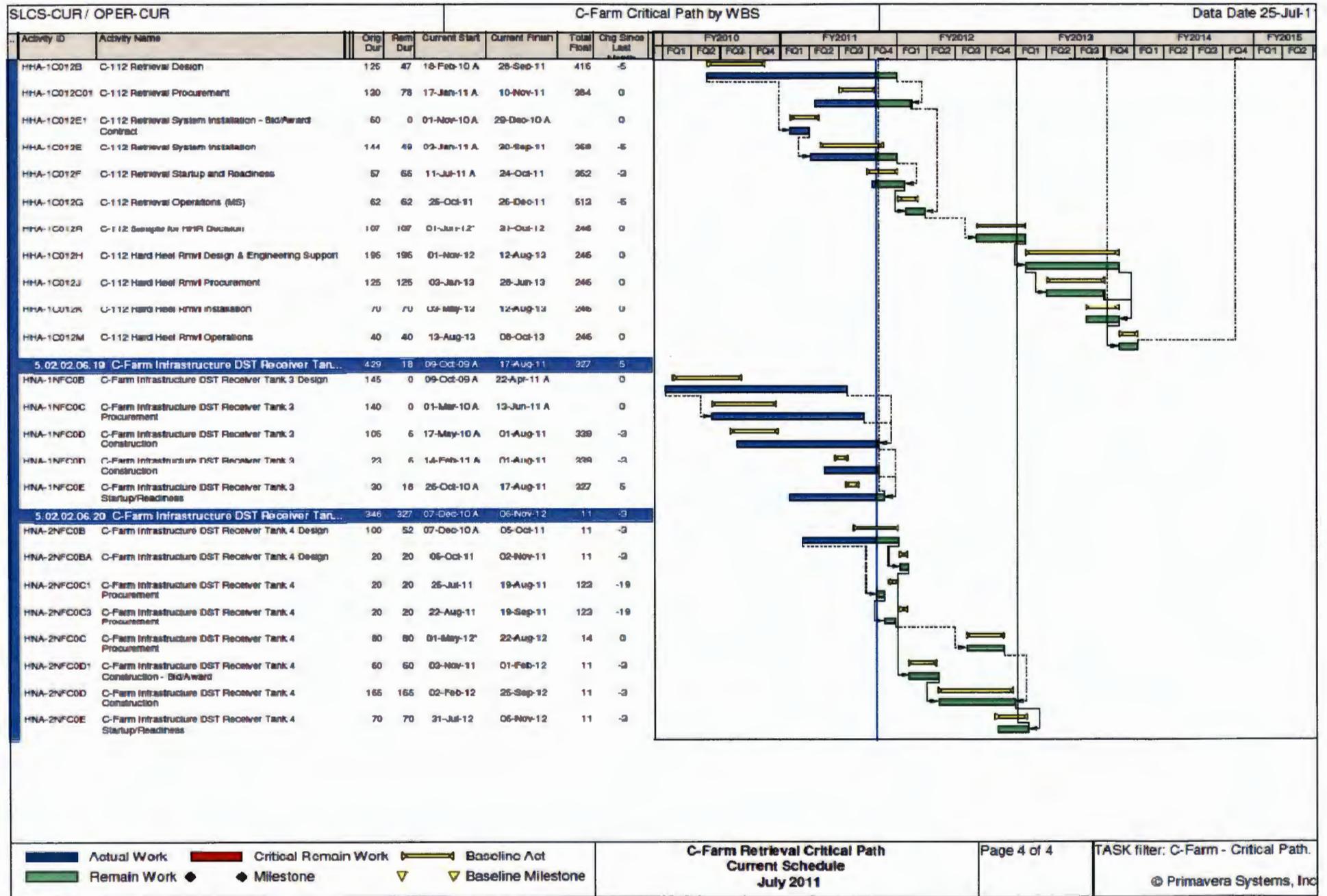
■ Actual Work    ■ Critical Remain Work     Baseline Act  
■ Remain Work    ◆ Milestone     Baseline Milestone

C-Farm Retrieval Critical Path  
Current Schedule  
July 2011

Page 3 of 4

TASK filter: C-Farm - Critical Path.

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■ Actual Work   
 ■ Critical Remain Work   
 ■ Remain Work   
 ◆ Milestone   
 —◆— Baseline Act   
 —◆— Baseline Milestone

C-Farm Retrieval Critical Path  
Current Schedule  
July 2011

Page 4 of 4

TASK filter: C-Farm - Critical Path.

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## 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 switched tank S-102 to A-103 with a completion date of 09/30/2022 for M-045-15.

**M-045-15A, Embedded Milestone, Submit a Retrieval Data Report Pursuant to Agreement Appendix I**, 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.

**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:**

None

#### **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 and 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:**

None

#### **Issues:**

None

## **Complete Closure of Double Shell Tanks**

**M-042-00A, Complete closure of all double shell tank farms, Due: TBD, based upon completion of retrieval under M-62-45 plus 5 yrs but no later than 9/30/2052 Status: On Schedule**

### **Significant Past Accomplishments:**

None

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

None

### **Issues:**

None

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

### 242-A Campaign strategy:

No campaigns are anticipated in CY2011 due to ongoing 242-A and Tank Farm Life Extension and ARRA funded facility upgrades. The 242-A Campaign Strategy for FY2010 through FY2015 depicted below has been updated based on ORP-11242, River Protection Project Plan, Revision 5, and ongoing schedule integration efforts.

Fiscal Year	Campaign No.	Feed Source	Slurry Tank	Comments
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. Campaign 10-02 was an acceleration of previously planned Campaign 11-01.
FY10	10-02	AW-106	AW-106	
FY11	NA	NA	NA	No campaign planned in FY11 due to ongoing 242-A and Tank Farm facility life extension and ARRA funded upgrades.
FY12	12-01	AP-107 AZ-102	AP-104 AP-107	Estimated start June 2012. Anticipates blending AZ-102 high cesium concentration with AP-107 waste. May require two (2) passes to achieve waste volume reduction.
FY12	12-02	AP-107 AZ-102	AP-107	Estimated start August 2012. Anticipates blending AZ-102 high cesium concentration with AP-107 waste. May require two (2) passes to achieve waste volume reduction.
FY13	13-01	AW-106	AP-107	Estimated start March 2013. Two (2) passes required.
FY13	13-02	AZ-101 AN-101 AW-106	AP-107	Estimated start September 2013. Two (2) passes required.
FY14	14-01	AN-106 AZ-102 AW-106	AP-107	Estimated start March 2014. Two (2) passes required.
FY15	15-01	AY-101 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-045-91G-T05, Provide to Ecology a report documenting and evaluating the visual inspection of 12 SSTs per the criteria listed in Table 3.3 in RPP-PLAN-46847, Rev.0, Due: 3/31/2011, Status: Complete 03/11/11 (Letter 11-TF-039). Ecology completed review and sent an approval letter stating ORP had met this milestone on 5/12/2011.**

**M-045-91C, implement the DQO process to develop and provide Ecology a Test Plan to evaluate the chemistries as specified in RPP-RPT-43 116. Rev 0, Due: 9/30/2011, Status: On Schedule**

**M-045-91G-T01, Provide to Ecology the Structural Analyses of Record final documentation for SSTs for 530, 000 gallon tanks (B, BX. C, T and U Farms), Due: 9/30/2011, Status: On Schedule**

**M-045-91B, Submit a Sampling and Analysis Plan to Ecology for the sampling of sidewall cores from tank 241-A-106 or alternate tank approved by Ecology, Due: 12/30/2011, Status: On Schedule**

**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: 1/31/2012, Status: On Schedule**

**M-045-91G-T02, provide to Ecology the Structural Analyses of Record final documentation for SSTs for 750,000 gallon tanks (BY, S, TX and TY Farms), Due: 1/31/2012, Status: On Schedule**

**M-045-91D, Submit to Ecology an analytical test plan for the cores removed from the C-107 plug, Due: 3/31/2012, Status: Complete 06/27/11. ORP letter 11-TPD-043 transmitted the test plan to Ecology on June 27, 2011.**

**M-045-91G-T06, Provide to Ecology a report documenting and evaluating the visual inspection of 12 SSTs per the criteria in M-045-91G-T05, Due: 3/31/2012, Status: On Schedule**

**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: 9/30/2012, Status: On Schedule**

**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: On Schedule**

**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: On Schedule.**

**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: On Schedule, date changed with M-45-11-05 Change Control Form.**

**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: On Schedule**

**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: On Schedule**

**M-045-91G, Provide a Summary Conclusions Report of Structural Analysis of Record (AOR) for SSTs, Due: 4/30/2014, Status: On Schedule**

**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:**

- Approved M-045-91D on July 29, 2011 by Ecology letter 11-NWP-077.
- Specimens for the M-045-91D milestone are ready for testing at CTL in Skokie, Illinois.
- Draft of Test Plan required by M-045-91C provided to Ecology on 7/12/11 for informal review and comment. Ecology's informal review completed. DQO released, RPP-49674.
- In support of M-045-91G-T02, development of the AOR is in progress.
- M-045-91F-T04: The examination of 241-TY and 241-BY farms continues. Two tank reports for the 241-TY farm have been drafted for discussion with Ecology. Background information for the examination of the 241-BY farm has been collected.

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

- Complete milestone M-045-91C, implement the DQO process to develop and provide Ecology a Test Plan to evaluate the chemistries as specified in RPP-RPT-43 116. Rev 0, Due: 9/30/2011.
- Complete M-045-91D specimen testing at CTL in Skokie, Illinois.
- Complete milestone M-045-91F-T03, plan to provide Ecology, Ionic Conductivity Feasibility Report in September 2011. Due: 5/31/2013.
- M-045-91F-T04: Leak assessments are ongoing with meetings every other week through 2012.
- Complete milestone M-045-91G-T01, Provide to Ecology the Structural Analyses of Record final documentation for SSTs for 530, 000 gallon tanks (B, BX, C, T and U Farms), planned submittal to Ecology in August 2011. Due: 9/30/2011.
- Complete milestone M-045-91G-T02, Provide to Ecology the Structural Analyses of Record final documentation for SSTs for 750, 000 gallon tanks (BY, S, TX, and TY Farms), planned submittal to Ecology in November 2011. Due: 1/31/2012.
- Complete the demonstration document of the ability to obtain concrete core samples to support M-045-91B-T01. Complete milestone M-045-91F-T01 leak assessment rate for Hanford and Savannah River Site tanks.
- Complete 241-SX leak assessment report for the M-045-91F-T04 milestone.

**Issues:**

None

## In Tank Characterization and Summary

For the period from July 1 – July 31, 2011:

### Accomplishments:

- Completed revision 2 of RPP-RPT-46618, *Hanford Waste Mineralogy Reference Report* on July 19.
- Completed revision 0, of SVF 2319, *USOF FY2011 PAC Reevaluation* on July 21
- Completed revision 1 of data package RPP-RPT-46180, *Final Report for Tank 241-AN-101 Mid-Retrieval Grab Samples in Support of Corrosion Mitigation During Tank 241-C-104 Retrieval* on July 19, 2011.
- Completed revision 0 of data package RPP-RPT-50027, *Final Report for Tank 241-AP-105 Liquid Grab Samples Collected in Support of the Corrosion Mitigation and Compatibility Program* on July 25.
- Completed revision 0 of TSAP RPP-PLAN-49885, *Tank Sampling and Analysis Plan for 241-C-108 Hard Heel Dissolution* on July 11.

### Planned Action within the next Six Months:

- Tank Sampling
  - Tank 241-C-108 *hard heel dissolution samples* scheduled for August 2011.
  - *Tank 204-AR-TK-1 compatibility* samples scheduled for August 2011.
  - Tank 241-AN-106 grab samples for chemistry control taken at 50% of the retrieval of tank 241-C-107 scheduled for October 2011.
  - Tank 241-C-104 off riser sampling scheduled for November 2011.
  - Tank 241-AW-106 evaporator samples scheduled for November 2011.
  - Tank 241-C-108 off riser sampling scheduled for November 2011.
  - Tank 241-AN-101 grab samples for chemistry control taken at 50% of the retrieval of tank 241-C-112 scheduled for November 2011.
- BBI Updates
  - Seven tank updates are planned for FY11 Quarter 4.
    - Updates for three of the tanks have been started.
- Data Quality Objectives (DQO)
  - Complete revision 3 of the PCB Management DQO in September 2011.

### Issues:

None

## TANK OPERATIONS CONTRACT (TOC) OVERVIEW

### Project Performance

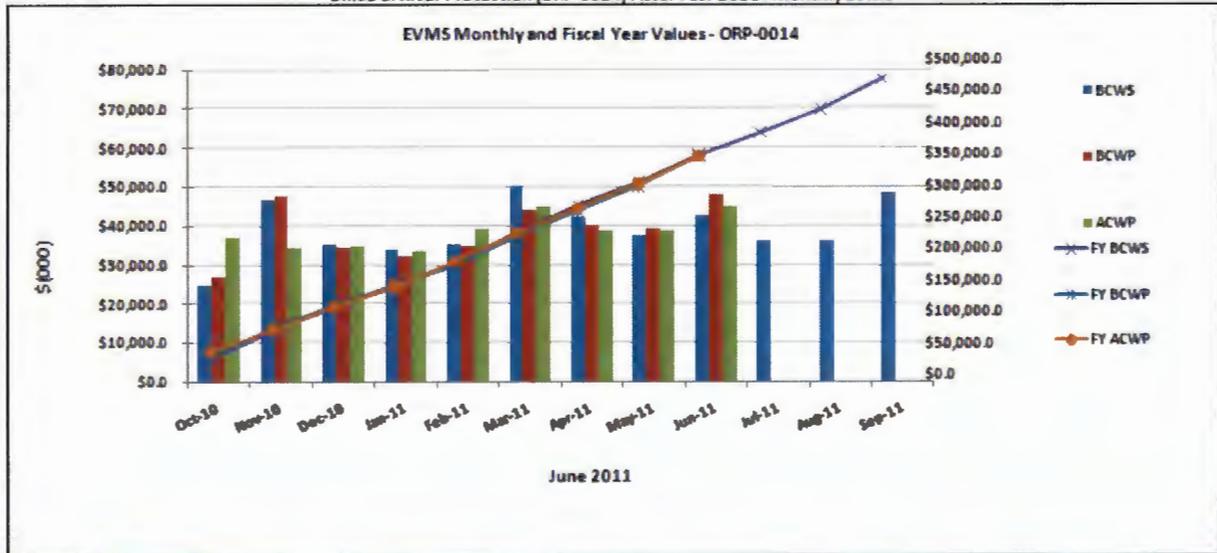
The earned value analysis is a comparison of cost and schedule contract-to-date performance. The earned value performance reporting reflects the format, Work Breakdown Structure (WBS) reporting levels, and variance thresholds as agreed to with the Tank Farms Operations Contractor (TOC) for monthly performance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

	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC	EAC	VAC
CM	42,816.6	48,027.1	44,871.5	5,210.5	3,155.7	1.12	1.07			
FYTD	348,808.3	347,455.3	346,692.1	(1,353.0)	763.2	1.00	1.00	469,595.0	474,127.7	(4,532.7)
CTD	1,108,864.0	1,100,689.0	1,038,815.0	(8,175.0)	61,874.0	0.99	1.06	2,108,247.8	2,046,227.7	62,020.1

Red shaded cells indicates a SPI/CPI less than 0.90  
 Green shaded cells indicate a SPI/CPI between 0.90 and 0.99  
 Blue shaded cells indicate a SPI/CPI greater than or equal to 1.0.

### Current Month Significant Variance Contributors

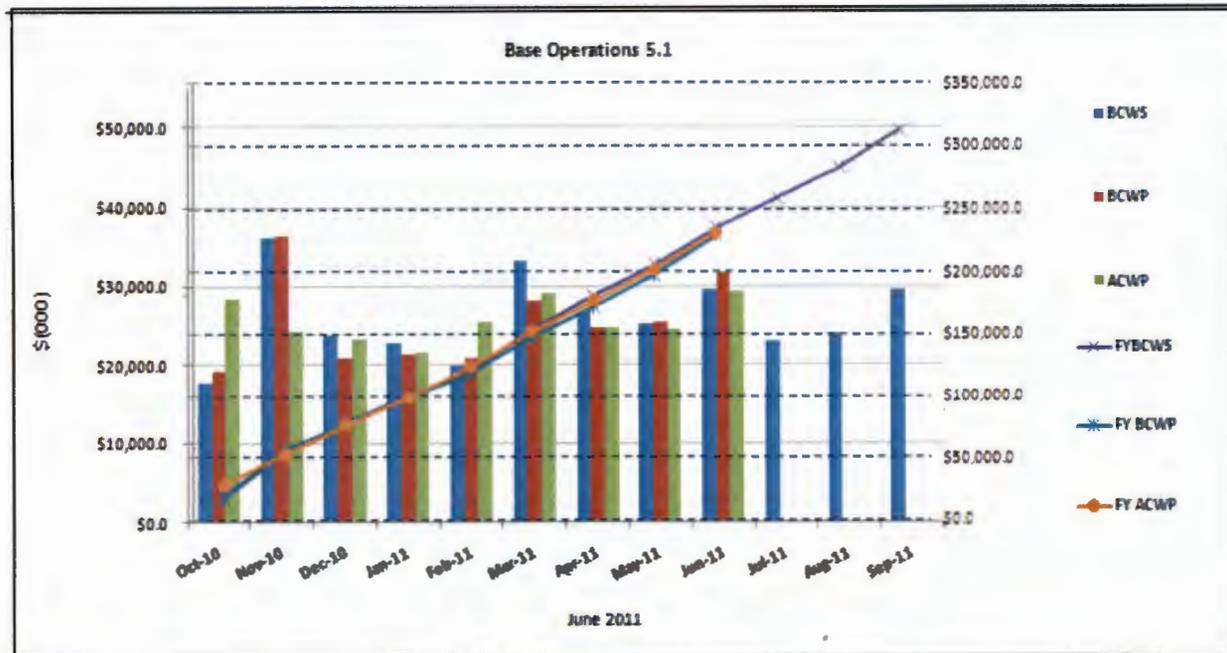
Office of River Protection (ORP-0014) Fiscal Year 2011 - Monthly EVMS



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct-10	\$24,918.8	\$26,782.0	\$37,083.6	1.07	0.72	\$24,918.8	\$26,782.0	\$37,083.6	1.07	0.72
Nov-10	\$46,528.0	\$47,510.9	\$34,301.0	1.02	1.39	\$71,446.8	\$74,292.9	\$71,384.5	1.04	1.04
Dec-10	\$35,469.5	\$34,558.3	\$35,056.5	0.97	0.99	\$106,916.3	\$108,851.1	\$106,441.0	1.02	1.02
Jan-11	\$33,862.5	\$32,115.2	\$33,376.8	0.95	0.96	\$140,778.8	\$140,966.4	\$139,817.8	1.00	1.01
Feb-11	\$35,187.1	\$34,800.5	\$39,288.6	0.99	0.89	\$175,935.9	\$176,766.8	\$179,106.4	1.00	0.98
Mar-11	\$50,219.3	\$44,202.5	\$45,898.7	0.88	0.98	\$226,155.2	\$219,969.3	\$224,205.1	0.97	0.98
Apr-11	\$42,344.0	\$40,218.8	\$38,772.0	0.95	1.04	\$268,499.2	\$268,188.1	\$262,977.1	0.97	0.99
May-11	\$37,492.6	\$39,240.0	\$38,843.5	1.05	1.01	\$305,991.8	\$299,428.1	\$301,820.6	0.98	0.99
Jun-11	\$42,816.6	\$48,027.1	\$44,871.5	1.12	1.07	\$348,808.4	\$347,455.2	\$346,692.1	1.00	1.00
Jul-11	\$35,958.2					\$384,766.6				
Aug-11	\$36,269.3					\$421,035.9				
Sep-11	\$48,559.2					\$469,595.1				
CTD	\$1,108,864.0	\$1,100,689.0	\$1,038,815.0	0.99	1.06					

- **Effective through June 30, 2011** – The overall project performance is going very well; SPI is slightly under 1.00 with a CPI of 1.06; thus – ORP 0014 is on schedule and under budget.

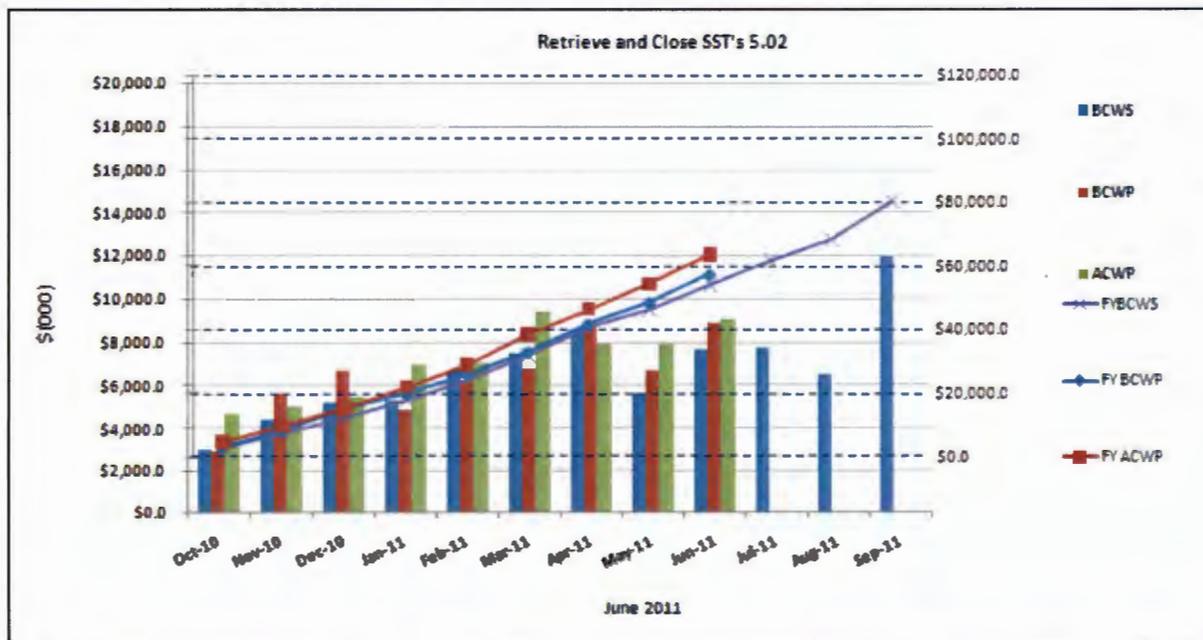
Office of River Protection (ORP-0014) Fiscal Year 2011 - Monthly EVMS



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FYBCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct-10	\$17,777.2	\$19,285.1	\$28,549.6	1.08	0.68	\$17,777.2	\$19,285.1	\$28,549.6	1.08	0.68
Nov-10	\$36,143.1	\$36,366.3	\$24,452.2	1.01	1.49	\$53,920.3	\$55,651.4	\$53,001.8	1.03	1.05
Dec-10	\$23,775.6	\$20,995.7	\$23,448.8	0.88	0.90	\$77,695.9	\$76,647.1	\$76,458.6	0.99	1.00
Jan-11	\$22,876.6	\$21,378.0	\$21,705.1	0.93	0.98	\$100,572.5	\$98,017.1	\$98,155.7	0.97	1.00
Feb-11	\$20,031.0	\$21,023.0	\$25,607.6	1.05	0.82	\$120,603.5	\$119,040.1	\$123,763.3	0.99	0.96
Mar-11	\$33,329.2	\$28,292.6	\$29,059.6	0.85	0.97	\$153,932.7	\$147,332.7	\$152,822.9	0.96	0.96
Apr-11	\$26,817.9	\$24,728.9	\$24,769.1	0.92	1.00	\$180,750.6	\$172,061.6	\$177,592.0	0.95	0.97
May-11	\$25,422.8	\$25,669.7	\$24,548.6	1.01	1.05	\$206,173.4	\$197,731.3	\$202,140.6	0.96	0.98
Jun-11	\$29,540.0	\$31,789.1	\$29,306.5	1.08	1.08	\$235,713.4	\$229,520.4	\$231,447.1	0.97	0.99
Jul-11	\$23,168.0					\$258,881.4				
Aug-11	\$24,147.8					\$283,029.2				
Sep-11	\$29,554.9					\$312,584.1				
<b>CTD</b>	<b>\$748,697.6</b>	<b>\$743,853.7</b>	<b>\$715,573.7</b>	<b>0.99</b>	<b>1.04</b>					

- **Contract Management and Compliance, \$556k:** CM (SV) ahead of schedule on the contract reconciliation phases 2 change proposals. Three of the sub-CLIN proposals were delivered ahead of schedule. This work was previously unbudgeted, but BCR RPP-11-180, "Contract Reconciliation Phase 2," was implemented in June 2011.
- **DST Integrity Project, \$390k:** CM (SV) is driven by two root causes: (1) the schedule recovery on DST encasement pressure checks of \$314k for the AZ-02A pit inspections and pressure checks on two lines in the AZ-01A pit (previously impacted by removal of the jumpers in the pits to support valve funnel work); and (2) the nondestructive examination equipment storage and support is ahead of schedule by \$110k.
- **Information Resource Management, \$227k:** the CM (CV) is driven by two root causes: (1) adjustment of over-accruals and deferral of computer purchases (level-of-effort account); and (2) budget cost work performed was less than planned for root cause analysis on legacy and non-legacy software quality assurance.

Office of River Protection (ORP-0014) Fiscal Year 2011 - Monthly EVMS

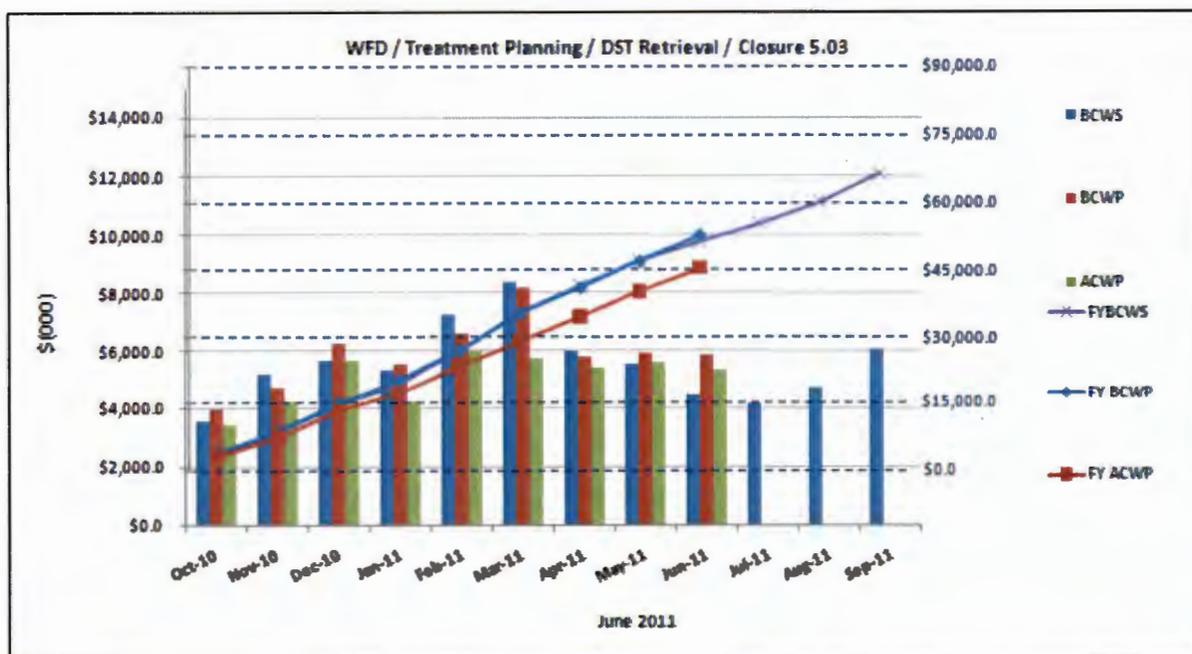


Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FYBCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct-10	\$2,991.6	\$2,932.6	\$4,707.6	0.98	0.62	\$2,991.6	\$2,932.6	\$4,707.6	0.98	0.62
Nov-10	\$4,412.7	\$5,622.7	\$5,006.7	1.27	1.12	\$7,404.3	\$8,555.3	\$9,714.3	1.16	0.88
Dec-10	\$5,209.7	\$6,682.7	\$5,494.0	1.28	1.22	\$12,614.0	\$15,238.0	\$15,208.3	1.21	1.00
Jan-11	\$5,310.0	\$4,820.2	\$6,975.6	0.91	0.69	\$17,924.0	\$20,058.2	\$22,183.9	1.12	0.90
Feb-11	\$6,670.0	\$6,253.2	\$7,006.6	0.94	0.89	\$24,594.0	\$26,311.4	\$29,190.5	1.07	0.90
Mar-11	\$7,513.3	\$6,825.3	\$9,447.6	0.91	0.72	\$32,107.3	\$33,136.7	\$38,638.1	1.03	0.86
Apr-11	\$8,613.5	\$8,766.1	\$7,914.2	1.02	1.11	\$40,720.8	\$41,902.8	\$46,552.3	1.03	0.90
May-11	\$5,638.9	\$6,687.7	\$7,937.1	1.19	0.84	\$46,359.7	\$48,590.5	\$54,489.4	1.05	0.89
Jun-11	\$7,638.7	\$8,905.0	\$9,080.1	1.17	0.98	\$53,998.4	\$57,495.5	\$63,569.5	1.06	0.90
Jul-11	\$7,729.6					\$61,728.0				
Aug-11	\$6,540.3					\$68,268.3				
Sep-11	\$11,951.1					\$80,219.4				

CTD	\$215,268.5	\$211,848.8	\$206,098.7	0.98	1.03
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- **C-107 Retrieval, \$538k:** CM (SV) schedule recovery on the SST C-107 retrieval system procurement of \$134k, installation of \$282k, and exhauster refurbishment of \$203k; includes MARS installation (electrical) and ventilation system/exhauster installation (stack erection and duct installation/tie-in).
- **Retrieval Technology Development, \$418k:** CM (SV) is driven by two root causes: (1) a CM point adjustment to the baseline BCWS resulting from funding constraint-driven implementation of BCR RPP-11-177, "Defer Slurry Pump Development." This BCR resulted in a negative CM BCWS of (\$338k) and an SV of \$338k; and (2) the technology development roadmap revision is ahead of schedule.
- **Interim Barrier, \$253k:** CM (CV) the labor efficiencies on the setup of electrodes for SGE characterization of \$178k (work completed faster and with fewer labor resources than planned); and subcontract costs for electrode setup were understated.

Office of River Protection (ORP-0014) Fiscal Year 2011 - Monthly EVMS

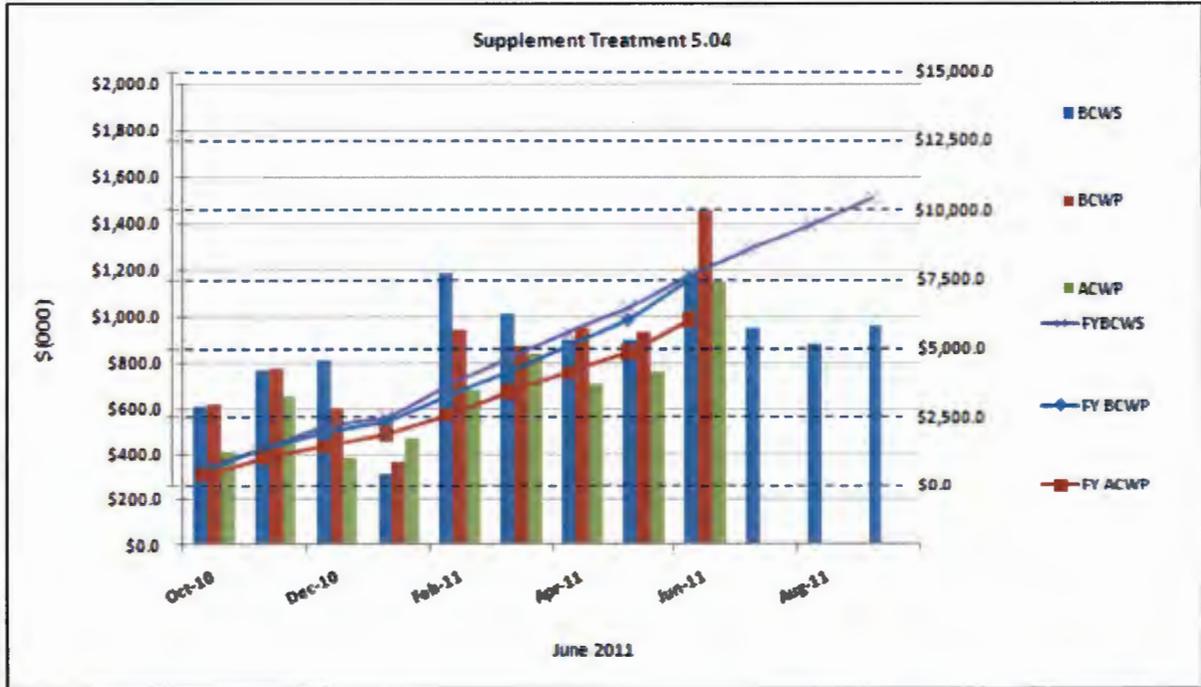


Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FYBCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct-10	\$3,540.0	\$3,944.3	\$3,413.8	1.11	1.16	\$3,540.0	\$3,944.3	\$3,413.8	1.11	1.16
Nov-10	\$5,203.6	\$4,748.8	\$4,184.7	0.91	1.13	\$8,743.6	\$8,693.1	\$7,598.5	0.99	1.14
Dec-10	\$5,677.1	\$6,277.7	\$5,689.4	1.11	1.10	\$14,420.7	\$14,970.8	\$13,287.9	1.04	1.13
Jan-11	\$5,366.1	\$5,557.1	\$4,225.6	1.04	1.32	\$19,786.8	\$20,527.9	\$17,513.5	1.04	1.17
Feb-11	\$7,269.3	\$6,582.6	\$5,993.5	0.91	1.10	\$27,056.1	\$27,110.5	\$23,507.0	1.00	1.15
Mar-11	\$8,362.9	\$8,213.8	\$5,757.0	0.98	1.43	\$35,419.0	\$35,324.3	\$29,264.0	1.00	1.21
Apr-11	\$6,011.0	\$5,778.2	\$5,384.6	0.96	1.07	\$41,430.0	\$41,102.5	\$34,648.6	0.99	1.19
May-11	\$5,533.4	\$5,946.3	\$5,595.9	1.07	1.06	\$46,963.4	\$47,048.8	\$40,244.5	1.00	1.17
Jun-11	\$4,456.7	\$5,875.8	\$5,335.3	1.32	1.10	\$51,420.1	\$52,924.6	\$45,579.8	1.03	1.16
Jul-11	\$4,110.8					\$55,530.9				
Aug-11	\$4,703.9					\$60,234.8				
Sep-11	\$6,091.6					\$66,326.4				

CTD	\$134,330.3	\$134,580.0	\$108,286.0	1.00	1.24
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- **RA-Secondary Waste Form Testing, \$1,643k:** CM (SV) contractors completing additional DM-10 testing in parallel, labor efficiencies associated with Ceramicrete and FBSR test plan development, and completing the waste acceptance test plan using prior knowledge from previous and similar plans.
- **RA-SY Transfer Line Upgrades, \$288k:** CM (CV) direct labor and subcontract cost efficiencies in construction are due to consolidation of transfer line and pit work resulting in reduced durations and need for project support and engineering oversight.
- **RA-Electrical Upgrades, (\$353k):** CM (CV) contract for the SY Farm Power Operations Center, and unplanned additional labor costs to SST upgrades completed in U/B/BX/BY Farms (**\$75k**).

Office of River Protection (ORP-0014) Fiscal Year 2011 - Monthly EVMS



Earned Value Month	BCWS	BCVP	ACVP	SPI	CPI	FYBCWS	FY BCVP	FY ACVP	FY SPI	FY CPI
Oct-10	\$610.0	\$619.9	\$412.6	1.02	1.50	\$610.0	\$619.9	\$412.6	1.02	1.50
Nov-10	\$768.6	\$773.1	\$657.3	1.01	1.18	\$1,378.6	\$1,393.0	\$1,069.9	1.01	1.30
Dec-10	\$807.0	\$602.2	\$384.2	0.75	1.57	\$2,185.6	\$1,995.2	\$1,454.1	0.91	1.37
Jan-11	\$309.8	\$368.0	\$470.6	1.19	0.78	\$2,495.4	\$2,363.2	\$1,924.7	0.95	1.23
Feb-11	\$1,186.8	\$941.8	\$680.9	0.79	1.38	\$3,682.2	\$3,305.0	\$2,605.6	0.90	1.27
Mar-11	\$1,013.9	\$870.9	\$834.5	0.86	1.04	\$4,696.1	\$4,175.9	\$3,440.1	0.89	1.21
Apr-11	\$901.6	\$945.5	\$704.0	1.05	1.34	\$5,597.7	\$5,121.4	\$4,144.1	0.91	1.24
May-11	\$897.5	\$936.3	\$761.9	1.04	1.23	\$6,495.2	\$6,057.7	\$4,906.0	0.93	1.23
Jun-11	\$1,180.7	\$1,457.2	\$1,149.5	1.23	1.27	\$7,675.9	\$7,514.9	\$6,055.5	0.98	1.24
Jul-11	\$949.9					\$8,625.8				
Aug-11	\$877.3					\$9,503.1				
Sep-11	\$961.7					\$10,464.8				

CTD	\$10,567.6	\$10,406.4	\$8,856.7	0.98	1.17
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- **WTP Pre-Treatment Alternative Studies, \$581k:** CM (CV) efficiencies realized from self-performing WTP technology development baseline studies, reducing subcontractor cost and utilizing technology demonstrations from SRNL, requiring less labor.

## **Acquisition of New Facilities**

**M-090-11, Complete the Negotiation of No More Than Two Canister Storage Facility Construction Interim Milestones, Due: 12/31/12, Status: On Schedule.** Negotiations are not yet underway.

**M-090-00, Acquire/modify facilities for storage of IHLW, Due: 12/31/2019, Status: On Schedule**

**M-047-06, Complete negotiation of no more than two interim milestones governing work necessary to support completion of M-047-00, Due: 06/30/12, Status: Negotiations are not yet underway.**

**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:**

None

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

The down-selection process to evaluate the alternatives for both the Interim Hanford Storage Facility and Secondary Waste Treatment will be held the last week of August 2011.

### **Issues:**

None

## Supplemental Treatment and Part B Permit Applications

**M-062-30, Complete negotiations establishing milestones for near term actions, Due:** 10/25/11, Status: Deleted. Change Package M-62-11-01 deleted this milestone and elements required by this milestone may now be considered during the M-62-40 or M-62-45 negotiations. M-62-11-01 notes that no further obligations remain to be performed under M-062-30.

**M-062-45ZZ, Negotiate a one-time supplemental treatment selection, Due:** 4/30/2015, Status: On schedule. Negotiations are not yet underway. See “Issues” below for further discussion.

**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:

- ORP and Ecology signed change package M-62-11-01, deleting milestone M-62-30.

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

None

### Issues:

None

## System Plan

**M-062-40B, Submit a system plan describing the disposition of all tank waste managed by ORP, Due: 10/31/2011, Status: On Schedule**

**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-062-40ZZ, 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-062-45-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:**

The 90% draft of SP6 review was completed on July 14, 2011 by ORP, WRPS and Ecology. WRPS provided proposed dispositions to an estimate of 525 comments generated by approximately 30 reviewers during the review of SP6 90% in July. The comment resolution and close out period was extended to August 9, 2011.

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

ORP is schedule for a three week contractual review of the System Plan Revision 6 document. The finalized document will be approved by ORP, released by WRPS, and transmitted from ORP to Ecology in time to meet the Oct. 31, 2011 milestone due date.

### **Issues:**

None

## Hanford Waste Treatment and Immobilization Plant (WTP) Project

**M-062-01W, Submit Semi-Annual Project Compliance Report, Due: CD - 7/28/2011 – Complete, TPA – 7/27/2011, Complete.**

**M-062-49, Submit a report to Ecology demonstrating that the WTP is designed to accomplish, pretreat 100% of retrievable waste, vitrify 100% of separated hi level waste, WTP LAW with Supplemental treatment can vitrify 100% of separated low level waste stream, Due: 10/31/2011, Status: BNI was provided direction to prepare this report on March 30, 2011, document in preparation, briefing to ecology of approach and outline scheduled for August 11, 2011.**

There are about 3,400 FTE equivalent contractor [Bechtel National Inc. (BNI)] and subcontractor personnel working on the WTP Project, including 1,200 craft, 500 non-manual, and about 180 subcontractor personnel FTE equivalents working at the WTP construction site (all facilities). Overall project percent complete through June 2011 is 59%, design and engineering is 82% complete, procurement is 62% complete, construction is 56% complete and Start-Up and Commissioning is 13% complete.

The overall WTP Project Schedule Variance (SV) in June was a positive \$6.0M, the Cost Variance (CV) was a positive \$2.7M. The positive cost variance was due to Plant Equipment and Construction control accounts and the schedule variances came primarily from Plant Equipment and Construction control accounts.

Design/Engineering facility percent complete values went down due to a baseline change proposal to align the specific Engineering functions scope with the respective facility that the work scope supported. This BCP resulted in an increase to the facility engineering budgets, which correspondingly reduced the to-date percent complete values.

Following is the status through the end of July for current project issues:

### Significant Past Accomplishments:

- Successfully completed placement of the first black cell piping module.

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

- Complete erection of 4<sup>th</sup> tier structural steel (77-ft to 98-ft elevation)
- Complete analytical results from the Low Order Accumulation Model (LOAM) validation testing for the non-Newtonian vessel configuration
- Complete Fabrication and Delivery of C5V Dampers
- Complete Siding of HLW Annex
- Complete installation of the LAW and LAB Autosampler systems
- Install hot cell monorail airlocks in the LAB
- Complete construction of the BOF switchgear facility, cooling tower and fuel oil pumphouse

### Issues:

No significant issues at this time.

## Pretreatment (PT) Facility

The PT Facility will separate radioactive tank waste into High Level Waste (HLW) and Low-Activity Waste (LAW) fractions and transfer each waste type to the respective vitrification facility for immobilization. Through June 2011, overall PT Facility percent complete is 48%, engineering is 77% complete, procurement is 45% complete, and construction is 37% complete.

### Significant Past Accomplishments:

In July, overall construction continues to perform well. Rebar and embed installation and fabrication of rebar wall curtains continues to support additional slab and wall placements at the 56ft to 98ft elevations. Construction completions for July include placement of three 5<sup>th</sup> lift (77ft to 98ft elevation) walls and one 56-ft elevation slab for a total of 894 CY. Accomplished the first placement of a piping module for the PT Facility, by completing the over the wall lift and set of the lower pipe module in the Plant Wash and Disposal System black cell. Completed excavation for the control building and poured mud mats.

On-going work includes fabrication of piping modules, installation of drain piping, service air piping, cable trays and supports, ductwork, conduit, wall liner plates, and sparge tubing in the hot cell, structural steel at the northwest corner of the facility at the 77ft elevation.

Engineering continues to implement changes from the technical issue resolutions into Piping and Instrumentation Design (P&ID) and piping isometric drawings. Instrumentation location drawings were issued for the 56ft elevation, as well as 180 piping isometric drawings, and the framing drawings and supporting calculations for hot cell Planning Area 11. Evaluations of the PVP/PVV system to meet functional requirements during an off-normal condition are ongoing, which requires: revision of the aerosol generation model; performance testing of High Efficiency Mist Eliminator (HEME) and scrubber to function during off-normal conditions; and aerosol testing to determine entrainment factor for the WTP-specific conditions. DOE completed the evaluation and approved BNI's request to weld the vessel heads onto the five Non-Newtonian vessels (UFP-VSL-0002A/B, HLP-VSL-00027A/B, and HLP-VSL-00028).

Completed planning, and initiated Request for Proposal (RFP) for fabrication and testing related to Large Scale Integrated Testing (LSIT). A Material Requisition (MR) was issued to purchase racks for the plant wash, fluidics, and utilities. Twenty four jet pump pairs and two Coriolis density transmitter were released to ship.

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

- Completion of Milestones for re-Committed design of the CXP and FRP vessels
- Install hot cell piping PJV header
- Complete nineteen mechanical systems re-committed design packages
- Fabricate and deliver ten hot cell equipment frames
- Complete analytical results from the Low Order Accumulation Model (LOAM) validation testing for the non-Newtonian vessel configuration
- Complete 5<sup>th</sup> lift wall placements and make initial placements for the Control Building slab, totaling approximately 3,590 CY of concrete
- Complete erection of 4<sup>th</sup> tier structural steel (77ft to 98ft elevation)
- Award contract for High Efficiency Mist Eliminator (HEME)

- Make first 98ft elevation slab concrete pour by end of 2011
- South tunnel elevation slab placement
- Control building first slab placement

**Issues:**

- Vessel Critical Path: Fabrication of vessel HLP-22 continues to be the primary critical path for the PT Facility. The fabrication of the vessel is in progress, but the completion date has slipped from October to December 2012. Construction need date is January 2013. Fabricator is pursuing opportunities to improve the HLP-22 completion date.
- Ecology approval of the permit packages is required to proceed with the vessel alteration for vessels FRP -2A/B/C/D and UFP-62A/B/C in December 2011. These packages are scheduled to begin a public comment period August 22<sup>nd</sup>.

## High-Level Waste (HLW) Facility

The HLW Facility will receive the separated high-level waste from the PT Facility. The concentrate is blended with glass formers and converted into molten glass in one of the two HLW melters and then poured into cylindrical stainless steel canisters. After cooling, the canisters are sealed and decontaminated prior to shipment to interim storage. The HLW Facility is 54% complete overall, with engineering design 85% complete, procurement 67% complete, and construction 35% complete.

### Significant Past Accomplishments:

The HLW Filter Cave build-out remains critical path with a majority of the activities being construction and installation. Installation of support steel to the +8ft elevation continues to support the setting of the C5V, HOP, and PJV filter housings. Fabrication of the final pair of filter housings is nearing completion. The first set of C5V dampers from Switzerland has been shipped and fabrication continues on the remaining dampers.

Several concrete pours have taken place during the month of July, including the #1 Melter Cave walls which were some of the most difficult in the building. Siding of the Annex has commenced and roofing activities continue with the parapet walls being formed and the decking being placed working toward the goal of weathering in by the end of the year.

Numerous procurements arrived in the month of August:

- Two 25ton shield plates;
- Canister rinse boggie decon vessel;
- First set C5V dampers;
- HLW Melter assemblies (80%);
- Canister Handling Cave Crane.

Electrical and piping commodities are progressing throughout the -21ft elevation including cooling water, cable trays and supports, and fire protection piping. Permanent lighting installation has progressed through the lower elevations. Vendors are also continuing with special coatings, HVAC, and liner plate.

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

- Complete fabrication and delivery of C5V dampers
- Complete siding of HLW Annex
- C5V housing and remote-operated damper installations
- Receive major components of Melters #1 and #2
- Receive RLD-VSL-8

### Issues:

No significant issues at this time.

## Low-Activity Waste (LAW) Facility

The LAW Facility will vitrify low-activity waste from the PT Facility. Waste will be mixed with glass formers, vitrified into glass at an average daily rate of 30 metric tons, and placed in stainless-steel canisters that will be disposed on site in the Integrated Disposal Facility. Overall facility percent complete is 65%, engineering is 88% complete, procurement is 84% complete, and construction is 63% complete.

### Significant Past Accomplishments:

LAW secondary offgas treatment system component procurement activities continued. Vendor activities are progressing as scheduled for all offgas system components. Other procurement activities included issuance of a material requisition to purchase expansion joints for the LAW offgas system and progress toward procurement of LAW Controls and Instrumentation (C&I) and related equipment.

A drawing was issued for miscellaneous equipment anchorage, which releases the High-Efficiency Particulate Air (HEPA) filter housing for anchorage. Piping isometric drawings were issued for the Low-Pressure Steam (LPS), Steam Condensate Water (SCW), and LAW melter process (LMP) systems. Piping and Instrumentation Diagrams (P&IDs) were issued for the Instrument Service Air (ISA) system. Confirmed calculations were issued for the *Liquid CO<sub>2</sub> Storage Vessel & Miscellaneous Equipment/Non-Building Structure Foundation Design* and for the *Girts and Sagrods Design for LAW Main Building*. Component Information System (CIS) lists for equipment, in-line components, valves, and pipelines were issued for the ISA system and for in-line components for the Breathing Service Air (BSA) system. A system description was issued for the LAW ventilation systems. Control logic diagrams for the drain valves in the LAW secondary offgas/vessel vent process (LVP) system and for the LMP system were issued to support software development and testing.

BNI completed the Thermite welding and setting of both sets of finishing line bogie rails, as well as installation of the lidding equipment in the north line for the container finishing handling (LFH) system. Construction continued with installation of the buffer storage area shield plates, the fire alarm system, Low-Voltage Electrical (LVE) system equipment, Medium-Voltage Electrical (MVE) equipment, humidifiers for the C2V ventilation system, liner in the pour caves, and container finishing line hoists, hatches, and lidding equipment. Other normal activities continued, including installation of piping for the MVE and Plant Cooling Water (PCW) systems within the LAW, as well as installation of cable tray, pipe and pipe hangers, transformers, electrical grounding, conduit and wiring, instrument enclosures, lighting fixtures, partition walls, and coatings.

Integrated Control Network (ICN) development continued with the review of software for the LAW Demineralized Water (DIW) system, Container Receipt Handling (LRH) system, Radioactive Liquid Waste Disposal (RLD) system, and LAW melter Equipment Support Handling (LSH) system. Software related to the following systems was accepted: LVP system, primary offgas process (LOP) system, and the LAW DIW system.

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

- Complete vendor fabrication of the Carbon Bed Adsorber (CBA)
- Award Annex Architectural Specialties Subcontract

- Install Inert Fill Drop Line
- Install Melter Power Supplies
- Complete installation of the Autosampling (ASX) system

**Issues:**

No major issues at this time.

## Analytical Laboratory

The LAB will support WTP operations by analyzing feed, vitrified waste, and effluent streams. Overall facility complete for LAB is 46%, engineering is 77% complete, procurement is 74% complete, and construction is 63% complete.

### Significant Past Accomplishments:

On-going construction work includes installation of piping for the Low Pressure Steam (LPS), High Pressure Steam (HPS), and Steam Condensate Water (SCW) system interfaces with BOF. Drop piping for LPS, chill water, SCW systems, and scheduled/unscheduled electrical raceway was installed in the radiological lab area. Domestic water piping was installed in multiple areas. Installation of instrumentation, schedule/unscheduled electrical raceway, bulk piping/hangers, and structural steel for the fireproof slab in the C5 fan room. HEPA filters are being installed on the top of the hot cell. In the exterior hot cell, the installation of bulk piping/hangers, electrical equipment, and scheduled/unscheduled conduit continued. In the interior hot cell, the installation of the trolley covers/motor assemblies and north gamma probes continued.

Engineering issued single line diagrams for the LVE system, equipment anchorage drawings for the electrical rooms A-0111 and A-0111A, a configuration data index for the stack discharge monitoring system, two instrument data sheets for pressure transmitters, architectural room finishing schedule, piping isometric drawings for plant service air, LPS, HPS, SCW, RLD, and the ASX. Drawings were issued for enlarged floor plan architectural drawings at elevation 0', building sections, wall sections, and interior elevations. Six instrument racks and three two-way valves were released to ship. Sequential function charts were issued for the Laboratory in-cell Handling (LIH) system's hot cell trolley east/west line movement sequence. Configuration data indices were issued for the CIV, LIH, environmental monitoring, bottled argon gas, bottled nitrogen gas, and bottled helium gas. Data sheets were issued for foundation field bus actuated on/off valves for the RLD system and foundation field bus resistance temperature detector transmitters for the LPS system.

Procurement issued material requisitions for quote on steam/air traps, and for purchase of mass-flow controller, static mixers, and blenders.

The operations staff provided comments on the draft Facility Description for the LAB, provided a presentation on the basic operations of the ASX System, reviewed the draft design for the high purity gas system, system operation to prevent the potential for a siphon or back flush from the C3/C5 sump, and provided references for projected radiological inventory and maximum number of samples allowed in the hot cells in the LAB.

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

- Install Drum Packing Fume Hood
- Install waste drum bogie transfer port
- Install Autosampler HEPA filter housings frames
- Install hot cell monorail airlocks
- Complete installation of Autosampler System
- Install hot cell monorail recovery hoists
- Install fireproofing slab in C5 fan room

**Issues:**

No major issues.

## Balance of Facilities (BOF)

BOF provides services and utilities to support operation of the main production facilities – PT, HLW, LAW, and LAB. Overall facility percent complete for BOF is 47%, engineering is 72% complete, procurement is 46% complete, and construction is 61% complete.

### Significant Past Accomplishments:

On-going construction work includes installation of Plant Service Air (PSA) system piping, transport piping/supports, scheduled conduit, cable tray, and form work for the controls and instrumentation duct bank at the Glass Former Storage Facility (GFSF). Piping was installed for the domestic water, fire service water, and non-radioactive liquid waste system in the Anhydrous Ammonia Storage Facility (AASF). Installation of cable terminations, scheduled conduit and cable in the main switchgear building, eyewash station water heater and expansion tank, plant service air spools in the LAB, booster pump for the LAB's chilled water system, and pressure safety valves in the chiller compressor plant continued. Concrete was placed for the 480-volt duct bank at the AASF building. Excavation began to connect domestic water to the water treatment facility and for the PT control building. The fire alarm/detection equipment has been installed in the T-52 warehouse.

Engineering issued instrument data sheets for two differential pressure gauges, two radar level transmitters/switches, and two displacer transmitter or controllers for the Ammonia Reagent (AMR) system. The technical evaluation of the Emergency Turbine Generator (ETG) was completed to support the award of the contract. C&I process and mechanical handling conduit layout plans for the AASF were issued, as well as C&I raceway plans for miscellaneous tanks and for the lower level of the GFSF. Piping isometric drawings were issued for the AMR system, and for the plant chill water system. Single line drawings for the medium voltage electrical system were issued.

Procurement received 27 linear feet of pipe, and issued the material requisition for the AMR system storage vessels.

The operations staff participated in a load energization timing evaluation in relation to the transition to an ETG. Operations staff continued work with engineering on component insulation design and requirements, which included a walk down of the steam plant to evaluate design and maintainability of the removable insulation pads.

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

- Complete construction of cooling tower
- Complete construction of fuel oil pumphouse
- Complete construction of BOF switchgear building
- Install structural steel for anhydrous ammonia facility

### Issues:

No major issues

Waste Treatment Plant Project - Percent Complete Status Through June 2011															
(Dollars - Millions)	Overall Facility Percent Complete Unallocated Dollars			Design/Engineering Unallocated Dollars			Procurement Unallocated Dollars			Construction Unallocated Dollars			Startup & Commissioning Unallocated Dollars		
	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete
Low-Activity Waste	952.8	620.6	65%	229.8	201.3	88%	234.9	197.1	84%	340.0	215.9	64%	148.1	6.3	4%
Analytical Lab	350.7	162.3	46%	54.8	42.5	78%	56.1	41.7	74%	104.6	66.3	63%	135.2	11.9	9%
Balance of Facilities	529.7	246.7	47%	84.4	60.5	72%	81.2	37.5	46%	227.9	139.6	61%	136.1	9.1	7%
High-Level Waste	1,471.4	793.9	54%	341.8	291.0	85%	454.8	305.1	67%	557.1	193.5	35%	117.8	4.3	4%
Pretreatment	2,493.6	1,192.8	48%	696.8	538.7	77%	715.4	319.5	45%	898.9	328.8	37%	182.6	5.9	3%
Shared Services	4,747.0	3,255.2	69%	1,051.3	886.4	84%	467.7	354.6	76%	1,423.0	1,027.6	72%	455.8	112.8	25%
<b>Total WTP w/o UB</b>	<b>10,545.2</b>	<b>6,271.5</b>	<b>59%</b>	<b>2,458.9</b>	<b>2,020.4</b>	<b>82%</b>	<b>2,010.1</b>	<b>1,255.5</b>	<b>62%</b>	<b>3,551.5</b>	<b>1,971.7</b>	<b>56%</b>	<b>1,175.6</b>	<b>150.3</b>	<b>13%</b>
Undistributed Budget	0.0	n/a	n/a	n/a	n/a	n/a									
<b>Total WTP</b>	<b>10,545.2</b>	<b>6,271.5</b>	<b>59%</b>	<b>2,458.9</b>	<b>2,020.4</b>	<b>82%</b>	<b>2,010.1</b>	<b>1,255.5</b>	<b>62%</b>	<b>3,551.5</b>	<b>1,971.7</b>	<b>56%</b>	<b>1,175.6</b>	<b>150.3</b>	<b>13%</b>

Source: WTP Contract Performance Report - Format 1, Data for June 2011

Note: Starting with the June 2009 report, facility Construction percent complete values decreased significantly, and a couple of Design/Engineering facility percent complete values went down as well. The decrease in values was tied to Phase I of BNI's elimination of WBS 1.08, Plant Wide EPCC; scope from WBS 1.08 was moved to facilities as appropriate or to WBS 1.90, Shared Services. This resulted in an increase in the facility construction budgets, which has correspondingly reduced the to-date percent complete values. In July 2010 the allocation of 1.90 to the facilities was removed to show true facility percent complete.

1

<sup>1</sup> Note: EVMS data is through June 2011.