

FINAL

Office of River Protection
Tri-Party Agreement
Project Summary Report
January 2012



Office of River Protection
Tri-Party Agreement Milestone Review
January 2012

Page	Topic	Leads
1	Administrative Items / Milestone Status	James Lynch / Dan McDonald / Jeff Lyon
2	Single-Shell Tank Corrective Action; M-45, -50, -60	Bob Lober / Jeff Lyon
4	Single-Shell Retrieval and Closure Program TPA Milestones Status; M-45-00 series, - Tank in Appendix H Status - Tank Retrievals with Individual Milestones	Chris Kemp / Jeff Lyon
7	C-Farm Critical Path	Kathy Higgins / Jeff Lyon
11	242-A Evaporator Status	Glyn Trenchard / Jeff Lyon
12	SST Integrity Assurance; M-45-91	Jeremy Johnson/ Michelle Hendrickson
14	In Tank Characterization and Summary	Jeremy Johnson / Michael Barnes
15	Tank Operations Contract (TOC) Overview	Dan Knight / Jeff Lyon
20	Acquisition of New Facilities; M-90-00; M-47-00	Janet Diediker / Jeff Lyon / Dan McDonald
21	Supplemental Treatment and Part B Permit Applications; M-62-00, -20, -30, -45	Steve Pfaff / Jeff Lyon / Dan McDonald
22	System Plan; M-62-40	Dabrisha Smith / Jeff Lyon / Dan McDonald
23	WTP Overall TPA and CD Summary and Milestones Status; M-62-01; M-62-49	Delmar Noyes / Dan McDonald
25	WTP Pretreatment (PT) Facility	Wahed Abdul / Dan McDonald
27	WTP High-Level Waste (HLW) Facility	Gary Olsen / Dan McDonald
28	WTP Low-Activity Waste (LAW) Facility	Jeff Bruggeman / Dan McDonald
30	WTP Analytical Laboratory (LAB)	Jason Young / Dan McDonald
31	WTP Balance of Facilities (BOF)	

Milestone	Title	Due Date	Completion Date	Status
Fiscal Year 2012				
M-062-40B	Submit System Plan	10/31/2011	10/21/2011	Completed
M-062-49	Sub. Report to ECY Demonstrating WTP Design Meets Vit. Criteria	10/31/2011	10/27/2011	Completed
M-045-91B	DOE Submit a Sampling and Analysis Plan to Ecology	12/30/2011	9/20/2011	Completed
M-045-92F	Meet Yearly on Performance of Barrier	12/31/2011	11/30/2011	Completed
M-045-91F-T01	Provide Report of the Liquid Leak Rate Assessments	1/31/2012		To Be Missed
M-045-91G-T02	Provide AOR Final Doc. for SSTs on 750,000 Gallon Tanks	1/31/2012	11/18/2011	Completed
M-062-01X	Submit Semi-Annual Project Compliance Report	1/31/2012		On Schedule
M-045-91D	Submit Analytical Test Plan for Cores Removed from C-107 Plug	3/31/2012	6/27/2011	Completed
M-045-91G-T06	Provide Report of the Visual Inspection of 12 SSTs M-045-91G-T05	3/31/2012		On Schedule
M-045-92M	Barrier 2 Design/Monitoring Approval From Ecology	6/30/2012	5/19/2011	Completed
M-047-06	Comp. Neg's of No More Than 2 Interim Milestones	6/30/2012		On Schedule
M-062-01Y	Submit Semi-Annual Project Compliance Report	7/31/2012		On Schedule
M-045-91G-T03	Provide AOR Final Doc. for SSTs on 1,000,000 Gallon Tanks	9/30/2012		To Be Missed
Fiscal Year 2013				
M-045-92L	Barrier 1 Construction Complete	10/31/2012		To Be Missed
M-045-92G	Meet Yearly on Performance of Barrier	12/31/2012		On Schedule
M-090-11	Comp. Neg's No More Than 2 Canister Storage Fac. Const. Int. M/S	12/31/2012		On Schedule
M-062-01Z	Submit Semi-Annual Project Compliance Report	1/31/2013		On Schedule
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		On Schedule
M-045-92O	Barrier 3 Design/Monitoring Approval From Ecology	6/30/2013		On Schedule
M-045-91F-T02	Provide Report of Liner Failures for SSTs	7/31/2013		On Schedule
M-045-91F-T04	Provide Report on 100-Series SSTs as having Leaked in RPP-32681	7/31/2013		On Schedule
M-045-91E	Provide SST Farms Dome Deflection Surveys Every Two Years	9/30/2013		On Schedule

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. Continue field sampling with decommissioning of angle push under C203 underway. ORP and Ecology met for review of sampling results and draft workplan modifications and sampling optimization strategy on September 22, 2011. September meeting minutes, which document efforts, were signed 11/09/2011 by parties and were subsequently entered into the administrative record. A draft Workplan/SAP Modification and TPA Change Notice was formally submitted to Ecology on 1/05/2012 with a requested response by 2/10/2012.

M-045-56, Complete Implementation of Agreed to Interim Measures, Due: TBD, Status: On schedule. Annual DOE/Ecology meeting to discuss interim measures for 2011 was held on July 13, 2011, completing milestone M-045-56G. Meeting minutes have been signed by the parties and entered into the TPA administrative record. FY2012 funding budget authorization has been received, and constraints will impact FY2012 scheduled work. This possibility was noted in previous meeting minutes.

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-45-92B, DOE shall submit to Ecology for approval, a final design and monitoring plan for TY farm interim barrier, Due: 03/31/2010, Status: Complete. A revision will be made to

the monitoring plan and submitted to Ecology with a TPA Change Notice, based on current evaluation of data as documented in meeting minutes signed by the parties as part of M-045-92F.

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: Complete. Meeting was held 11/30/11. Meeting notes have been prepared, signed on 12/19/11, and have been entered into the TPA Administrative Record.

M-045-92L, Construct Barrier 1 Due: 10/31/12, Status: To Be Missed. Change Package in preparation. See issues below.

Significant Past Accomplishments:

- Automated data collection system for T-Farm interim barrier monitoring continues gathering data.
- Automated data collection system for TY Interim Barrier monitoring continues gathering data.
- Analysis of barrier monitoring data collected to date has been performed and results are being documented.
- Completed direct push campaign near C-200 tanks in C Farm.
- Continued laboratory analysis of direct push soil samples previously obtained in C farm and other farms

Significant Planned Actions in the Next Six Months:

- Perform additional updates to WMA C RFI/CMS workplan and SAP based on requested changes from Ecology.
- Publish results of evaluation of barrier monitoring data, and recommend changes to future monitoring plan for TY barrier.
- Continue laboratory analysis of direct push soil samples previously obtained in C farm and other farms.

Issues:

- FY2012 funding constraints will impact FY2012 scheduled work. Final Congressional appropriation information has been received. Changes to the baseline are being prepared and will be followed by applicable TPA Change Packages.

SST Retrieval and Closure Program

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 the comment resolution period in to December 5, 2011. Resolutions have been identified for all comments and the RCRs and redline provided to Ecology on 11/14/2011. Document to be revised following review by Ecology.

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 December 5, 2011. Ecology requested additional time to review *Radioactive Waste Determination Process Plan for Waste Management Area C Tank Waste Residual* via 11-NWP-049. ORP transmitted responses on the C-301 Catch Tank Retrieval Feasibility Study (RPP-RPT-45723) to Ecology on November 8, 2011, via 11-TDP-085. ORP transmitted responses on the 241-C Tank Removal Study (RPP-RPT-47167) on November 9, 2011, via 11-TPD-084. ORP received Ecology comments on the *Radioactive Waste Determination Process Plan for Waste Management Area C Tank Waste Residuals* on December 7, 2011 and is evaluating comments. ORP transmitted responses for *The Waste Management Area C RCRA/CERCLA Integration White Paper* (RPP-PLAN-46459) on January 17, 2012 via 11-TF-151.

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: Complete. 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 December 5, 2011. Ecology and ORP met on 11/1, 11/14, and 11/17/2011 to resolve comments. ORP requested an extension to January 31, 2012 to incorporate comment resolutions.

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-45-101, 80, and 81.

Issues:

- 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

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 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:

None

Issues:

None

SLCS-CUR / OPER-CUR		C-Farm Critical Path by WBS						Data Date 26-Dec-11																							
Activity ID	Activity Name	Orig Dur	Rem Dur	Current Start	Current Finish	Total Float	Chg Since Last Month	FY2010				FY2011				FY2012				FY2013				FY2014				FY2015			
								FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4
5.02.02.06.01 C-101 Retrieval		941	643	18-Oct-10 A	14-Jul-14	35	0																								
HHA-3C001B	C-101 Retrieval Design	144	7	18-Oct-10 A	06-Jan-12	92	-22																								
HHA-3C001CA	C-101 Retrieval Procurement - Receive Equipment	60	114	08-Aug-11 A	06-Jun-12	115	-22																								
HHA-3C001E	C-101 Retrieval System Installation	48	0	16-May-11 A	02-Nov-11 A	0	0																								
HHA-3C001E2	C-101 Retrieval System Installation - FY12	40	7	03-Oct-11 A	05-Jan-12	35	-13																								
HHA-3C001EA	C-101 Retrieval System Installation - FY12	187	187	06-Jan-12	28-Sep-12	35	0																								
HHA-3C001F	C-101 Retrieval Startup and Readiness - FY12	47	47	25-Jul-12	28-Sep-12	35	0																								
HHA-3C001F1	C-101 Retrieval Startup and Readiness - FY13	23	23	01-Oct-12	31-Oct-12	35	0																								
HHA-3C001G	C-101 Retrieval Operations (MS)	84	84	01-Nov-12	06-Mar-13	35	0																								
HHA-3C001M1	C-101 Sample for Hard Heel Removal Decision	107	107	07-Mar-13	06-Aug-13	35	0																								
HHA-3C001T	C-101 Hard Heel Rmvl Design & Engineering Support	195	195	07-Aug-13	15-May-14	35	0																								
HHA-3C001R	C-101 Hard Heel Rmvl Procurement	125	125	03-Oct-13	03-Apr-14	35	0																								
HHA-3C001S	C-101 Hard Heel Rmvl Installation	70	70	06-Feb-14	15-May-14	35	0																								
HHA-3C001M	C-101 Hard Heel Rmvl Operations	40	40	16-May-14	14-Jul-14	35	0																								
5.02.02.06.02 C-102 Retrieval		945	681	07-Dec-10 A	05-Sep-14	17	0																								
HHA-1C002B	C-102 Retrieval Design	108	8	07-Dec-10 A	06-Jan-12	57	-9																								
HHA-1C002C	C-102 Retrieval Procurement	80	92	15-Aug-11 A	08-Jun-12	98	71																								
HHA-1C002E	C-102 Retrieval System Installation	185	198	10-Oct-11 A	04-Oct-12	17	-10																								
HHA-1C002F	C-102 Retrieval Startup and Readiness FY12	46	46	23-Jul-12*	25-Sep-12	17	0																								
HHA-1C002F1	C-102 Retrieval Startup and Readiness FY13	24	24	26-Sep-12	29-Oct-12	17	0																								
HHA-1C002G	C-102 Retrieval Operations (MS)	170	170	02-Nov-12	20-Apr-13	24	0																								
HHA-1C002R	C-102 Sample for HHR Decision	113	113	22-Apr-13	30-Sep-13	17	0																								
HHA-1C002H	C-102 Hard Heel Rmvl Design & Engineering Support	195	195	01-Oct-13	10-Jul-14	17	0																								
HHA-1C002J	C-102 Hard Heel Rmvl Procurement	125	125	26-Nov-13	28-May-14	17	0																								
HHA-1C002K	C-102 Hard Heel Rmvl Installation	70	70	02-Apr-14	10-Jul-14	17	0																								
HHA-1C002M	C-102 Hard Heel Rmvl Operations	40	40	11-Jul-14	05-Sep-14	17	0																								
5.02.02.06.04 C-104 Retrieval		561	529	14-Nov-11 A	30-Jan-14	109	0																								
HHA-1C004C	C-104 Caustic Dissolution	165	108	14-Nov-11 A	29-May-12	64	-20																								

C-Farm Retrieval Critical Path
Current Schedule
December 2011

Page 1 of 4

TASK filters: ! - C-Farm CP
Exclude, C-Farm - Critical Path.

SLCS-CUR / OPER-CUR		C-Farm Critical Path by WBS						Data Date 26-Dec-11																							
Activity ID	Activity Name	Orig Dur	Rem Dur	Current Start	Current Finish	Total Float	Chg Since Last Month	FY2010				FY2011				FY2012				FY2013				FY2014				FY2015			
								FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2		
5.02.02.06.08 C-108 Retrieval		487	79	01-Feb-10 A	17-Apr-12	215	-56																								
HHA-1C008J	C-108 Hard Heel Rmvl Procurement	125	9	01-Feb-10 A	09-Jan-12	285	-30																								
HHA-1C008K	C-108 Hard Heel Rmvl Installation	75	79	22-Feb-10 A	17-Apr-12	115	-94																								
HHA-1C008M	C-108 Hard Heel Rmvl Operations	57	58	13-Oct-11 A	19-Mar-12	236	-35																								
5.02.02.06.09 C-109 Retrieval		122	136	28-Nov-11 A	09-Jul-12	236	-27																								
HHA-1C009HA	C-109 Hard Heel Rmvl Design & Engineering Support	41	71	28-Nov-11 A	05-Apr-12	243	-23																								
HHA-1C009K	C-109 Hard Heel Rmvl Installation	49	71	21-Dec-11 A	05-Apr-12	243	-20																								
HHA-1C009M	C-109 Hard Heel Rmvl Operations	58	58	17-Apr-12	09-Jul-12	236	-27																								
5.02.02.06.10 C-110 Retrieval		169	169	01-Aug-12	03-Apr-13	131	-130																								
HHA-1C010H1	C-110 Hard Heel Rmvl Engineering Support FY12	109	109	01-Aug-12	08-Jan-13	131	-178																								
HHA-1C010K	C-110 Hard Heel Rmvl Installation	109	109	01-Aug-12	08-Jan-13	131	-139																								
HHA-1C010M	C-110 Hard Heel Rmvl Operations	60	60	09-Jan-13	03-Apr-13	131	-130																								
5.02.02.06.11 C-111 Retrieval		358	307	11-Oct-11 A	14-Mar-13	251	0																								
HHA-1C011R	C-111 Sample for HHR Decision	107	110	11-Oct-11 A	31-May-12	335	-80																								
HHA-1C011H	C-111 Hard Heel Rmvl Design & Engineering Support FY12	122	122	09-Apr-12	28-Sep-12	251	0																								
HHA-1C011H1	C-111 Hard Heel Rmvl Design & Engineering Support FY13	73	73	01-Oct-12	16-Jan-13	251	0																								
HHA-1C011J	C-111 Hard Heel Rmvl Procurement FY12	82	82	05-Jun-12	28-Sep-12	251	0																								
HHA-1C011J1	C-111 Hard Heel Rmvl Procurement FY13	43	43	01-Oct-12	30-Nov-12	251	0																								
HHA-1C011K	C-111 Hard Heel Rmvl Installation	70	70	04-Oct-12	16-Jan-13	251	0																								
HHA-1C011M	C-111 Hard Heel Rmvl Operations	40	40	17-Jan-13	14-Mar-13	251	0																								
5.02.02.06.12 C-112 Retrieval		919	452	18-Feb-10 A	08-Oct-13	146	0																								
HHA-1C012B	C-112 Retrieval Design	125	0	18-Feb-10 A	16-Dec-11 A	-15																									
HHA-1C012E	C-112 Retrieval System Installation	144	0	03-Jan-11 A	22-Dec-11 A	-9																									
HHA-1C012F	C-112 Retrieval Startup and Readiness	57	0	11-Jul-11 A	21-Dec-11 A	-14																									
HHA-1C012G	C-112 Retrieval Operations (MS)	58	58	26-Dec-11	21-Feb-12	315	-25																								
HHA-1C012R	C-112 Sample for HHR Decision FY12	84	84	01-Jun-12	28-Sep-12	146	0																								
HHA-1C012R1	C-112 Sample for HHR Decision FY13	23	23	01-Oct-12	31-Oct-12	146	0																								
HHA-1C012H	C-112 Hard Heel Rmvl Design & Engineering Support	195	195	01-Nov-12	12-Aug-13	146	0																								
HHA-1C012J	C-112 Hard Heel Rmvl Procurement	125	125	03-Jan-13	28-Jun-13	146	0																								

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

242-A Campaign strategy:

No campaigns were conducted in FY2011 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 6, 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 conducted in FY11 due to ongoing 242-A and Tank Farm facility life extension and ARRA funded upgrades.
FY12	12-01	AP-107	AP-107	Estimated start August 2012. May require two (2) passes to achieve waste volume reduction.
FY13	13-01	AP-104	AP-107	Estimated start March 2013.
FY13	13-02-	AW-106	AP-107	Estimated start September 2013.
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-045-91F-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: To Be Missed. See issues. TPA change package M-45-12-01, moving M-45-91F-T01 and G-T03 out one year was provided to Ecology on 1/11/2012.

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: Complete 11/18/11. (ORP letter 11-TPD-091)

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)

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: To Be Missed. See issues. TPA change package M-45-12-01, moving M-45-91F-T01 and G-T03 out one year was provided to Ecology on 1/11/2012.

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 pending final appropriations.

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 pending final appropriations.

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 pending final appropriations.

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 pending final appropriations.

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 pending final appropriations.

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 pending final appropriations.

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

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 pending final appropriations.

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 pending final appropriations.

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 pending final appropriations.

Significant Past Accomplishments:

- SST Integrity Milestones and Target Dates Remaining Workscope Durations provided to Ecology on 12/20/2011. Change Package M-45-12-01 to move target dates M-045-91F-T01 and M-045-91G-T03 was provided to Ecology on 01/11/2012.

Significant Planned Actions in the Next Six Months:

- Approval and signature of Change Package M-45-12-01 to move target dates M-045-91F-T01 and M-045-91G-T03 out one year.
- Complete target M-045-91G-T06, provide report to Ecology documenting and evaluating the visual inspection of the 12 SSTs per criteria in M-045-91G-T05.
- Complete target M-045-91F-T03, provide Ecology the Ionic Conductivity Feasibility Report.
- Prepare and issue demonstration test report for the sidewall coring demonstration to support M-045-91B-T01.

Issues:

- FY2012 funding constraints will impact FY2012 scheduled work. Final Congressional appropriation information has been received. Changes to the baseline are being prepared and will be followed by applicable TPA Change Packages.

In Tank Characterization and Summary

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

Accomplishments:

- Collected the fifth set of liquid grab samples from tank C-108 to support the heel retrieval (the first four sets were taken in October and November).
- Completed RPP-PLAN-51289, *Tank 241-AN-101 Grab Sampling and Analysis Plan after the Completion of Tank 241-C-112 Sluicing*. The data will be used to evaluate corrosion chemistry during C-112 retrieval.
- Collected stack gas samples at the start of tank C-112 waste retrieval. The data will be used to evaluate emissions of Toxic Air Pollutants identified in RPP-PLAN-50993, *Sampling and Analysis Plan for Tank 241-C-112 Stack Chemical Emissions during Retrieval*.

Planned Action within the next Six Months:

- Tank Sampling
 - Continue to sample C-108 to support heel retrieval.
 - Tank AN-101 grab samples for corrosion chemistry control taken at 50% of the retrieval of tank C-112 scheduled for February 2012
 - Tank AN-101 grab samples for chemistry control after completion of C-112 sluicing scheduled for March 2012
 - Tank C-108 off- riser samples scheduled for April 2012
 - Tank 204-AR-TK-1 compatibility grab samples scheduled for February 2012
 - Tank AN-102 grab samples for chemistry control scheduled for March 2012
 - Tank C-104 grab samples to support heel retrieval scheduled for March 2012
 - Tank C-109 grab samples to support heel retrieval scheduled for March 2012
 - Tank SY-102 grab samples for chemistry control scheduled for May 2012
- BBI Updates
 - Ten tanks have been identified for updates in FY12 Quarter1. The BBI updates will be issued in January 2012.
- Data Quality Objectives (DQO)
 - Revision of the PCB Management DQO (RPP-7614) and the Compatibility DQO (HNF-SD-WM-DQO-001) in April 2012
 - Revision of the Strategic Planning DQO (RPP-44057) in April 2012

Development of DQOs to support removal of hard heels in C-104 and C-109 in March 2012

Issues:

None

TANK OPERATIONS CONTRACT (TOC) OVERVIEW

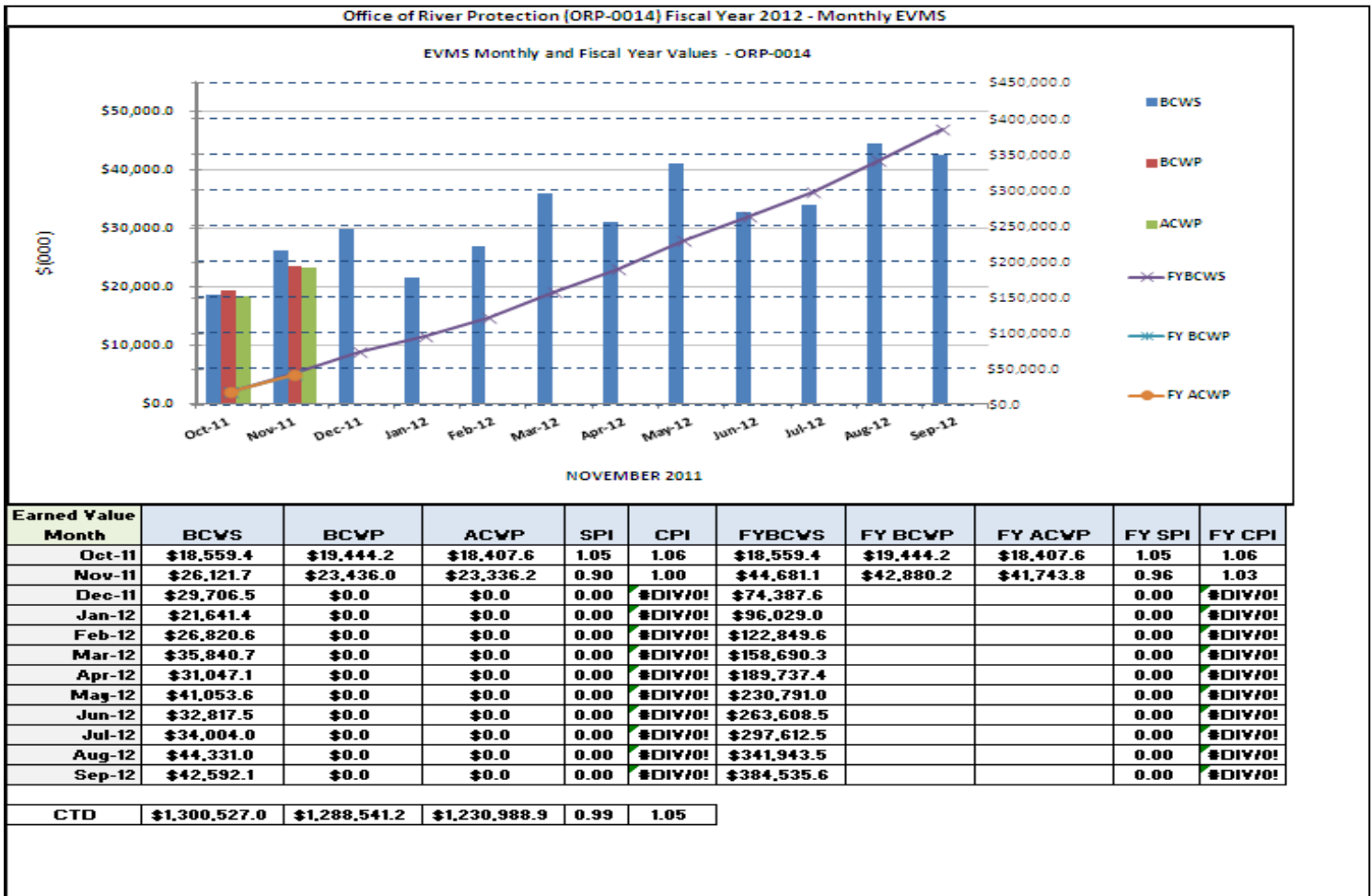
Project Performance

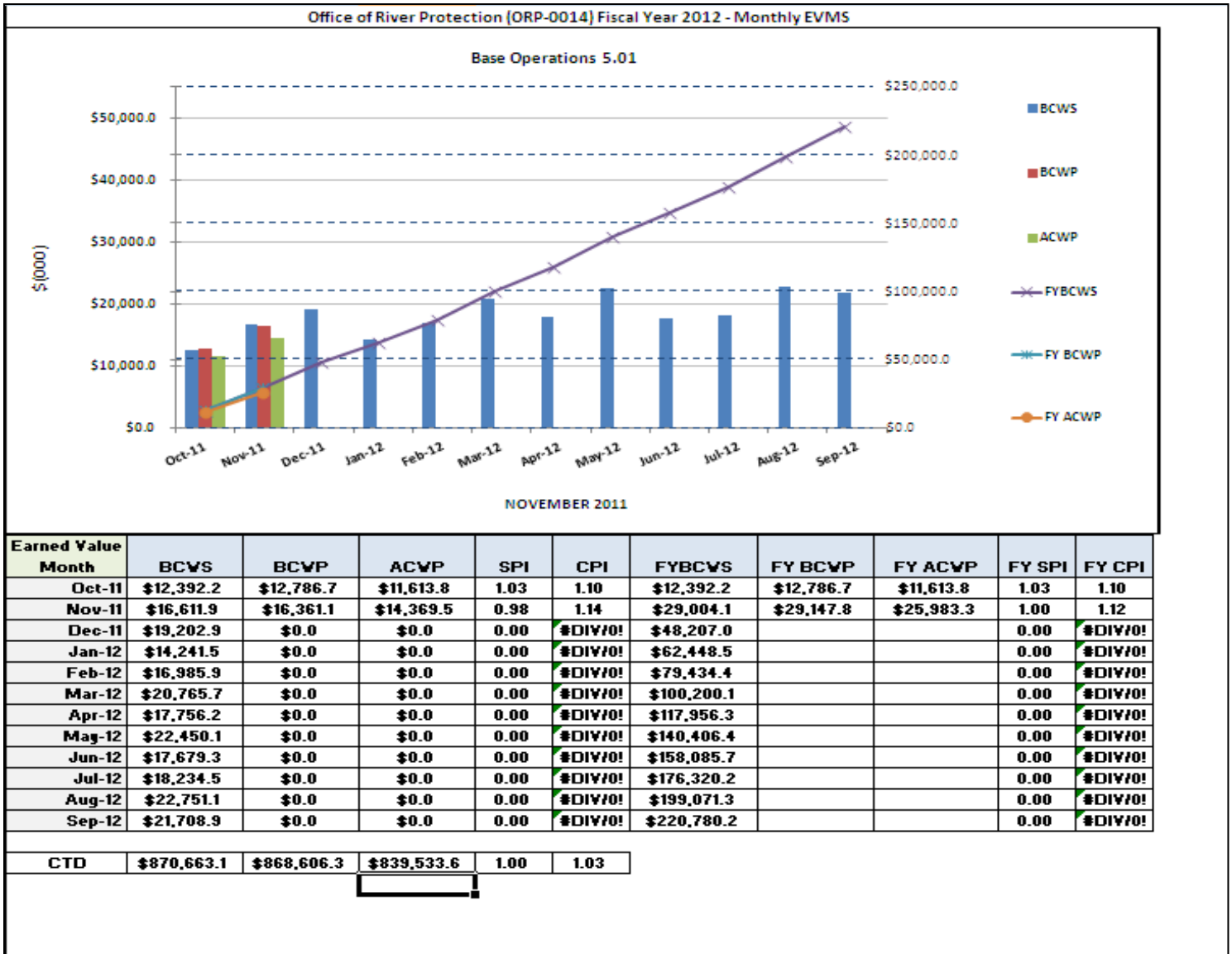
The earned value analysis is a comparison of cost and schedule contract-to-date performance. The earned value performance reporting reflects the format, Work Breakdown Structure (WBS) reporting levels, and variance thresholds as agreed to with the Tank Farms Operations Contractor (TOC) for monthly performance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

As of November 30, 2011, the TOC team has worked 2,383,303 hours (233 days) without a Lost Time Workday Injury or DART case and achieved 991,531 hours (105 days) since the last Recordable case. There were no Recordable cases in November 2011. The FY 2012 Total Recordable Case rate is 0.00, which is below the company goal of 0.87 and below the DOE, Office of Environmental Management goal of 1.50. See the following Total Recordable FY 2012 Cumulative Summary chart.

	BCWS	BCWP	ACWP	\$V	CV	\$PI	CPI	BAC	EAC	VAC
CM	26,121.7	23,436.0	23,336.2	(2,685.8)	998	0.90	1.00			
FYTD	44,681.1	42,880.2	41,743.8	(1,800.9)	1,1364	0.96	1.03	384,535.8	367,811.6	16,724.2
CTD	1,289,848.6	1,261,930.0	1,204,874.0	(7,918.6)	37,0560	0.99	1.05	2,140,083.8	2,065,574.3	74,509.5

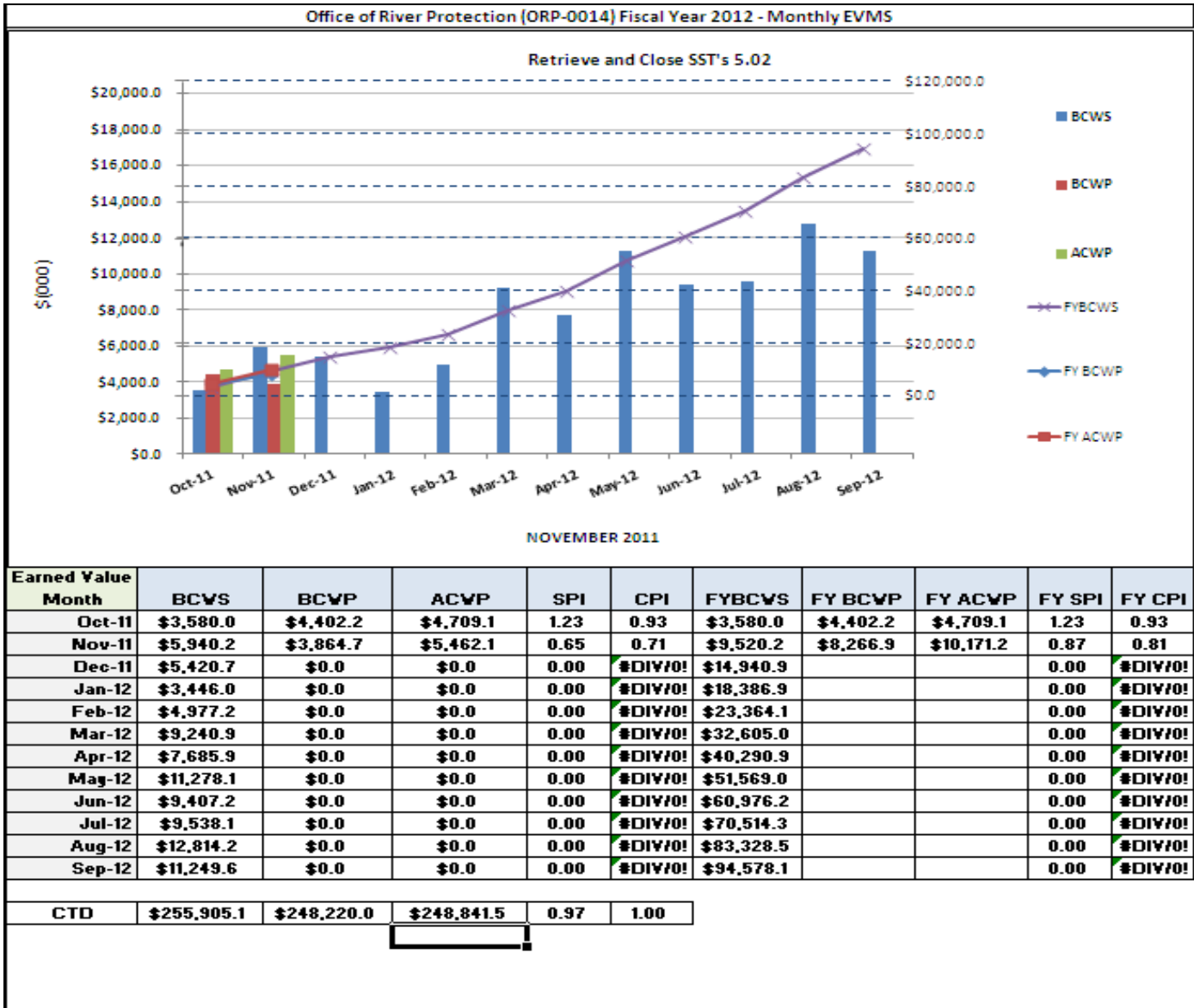
Red shaded cells indicates a SPI/CPI less than 0.90
 Green shaded cells indicate a SPI/CPI between 0.90 and 0.99
 Blue shaded cells indicate a SPI/CPI greater than or equal to 1.0





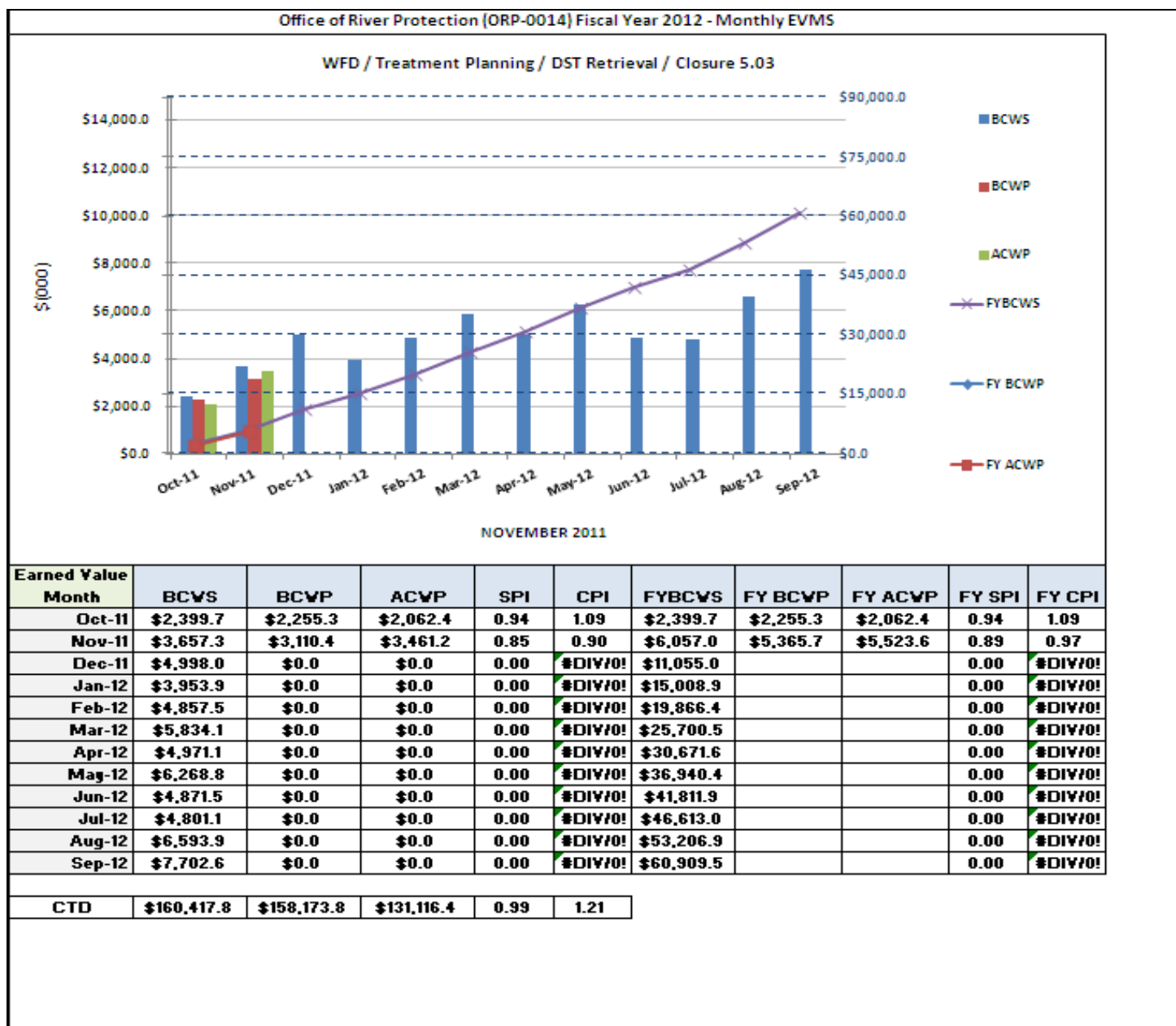
- **Base Operations Farms AW/AP (\$415k) CM (SV)** driven by two root causes:
 - Progress earned for completion of multiple noncomplex corrective maintenance work packages primarily associated with the AW Farm electrical outage (\$323k),
 - Completion of multiple preventive maintenance work packages on equipment due to the proximity of instruments.

- **Base Operations Farms A/AX/AY/AZ (\$307k) CM (SV)** driven by two root causes:
 - AZ Farm preventive and corrective maintenance resource constraints due to training and qualification of bargaining unit personnel after the workforce restructuring bump and role
 - Labor resources reassigned to support higher priority workscope.

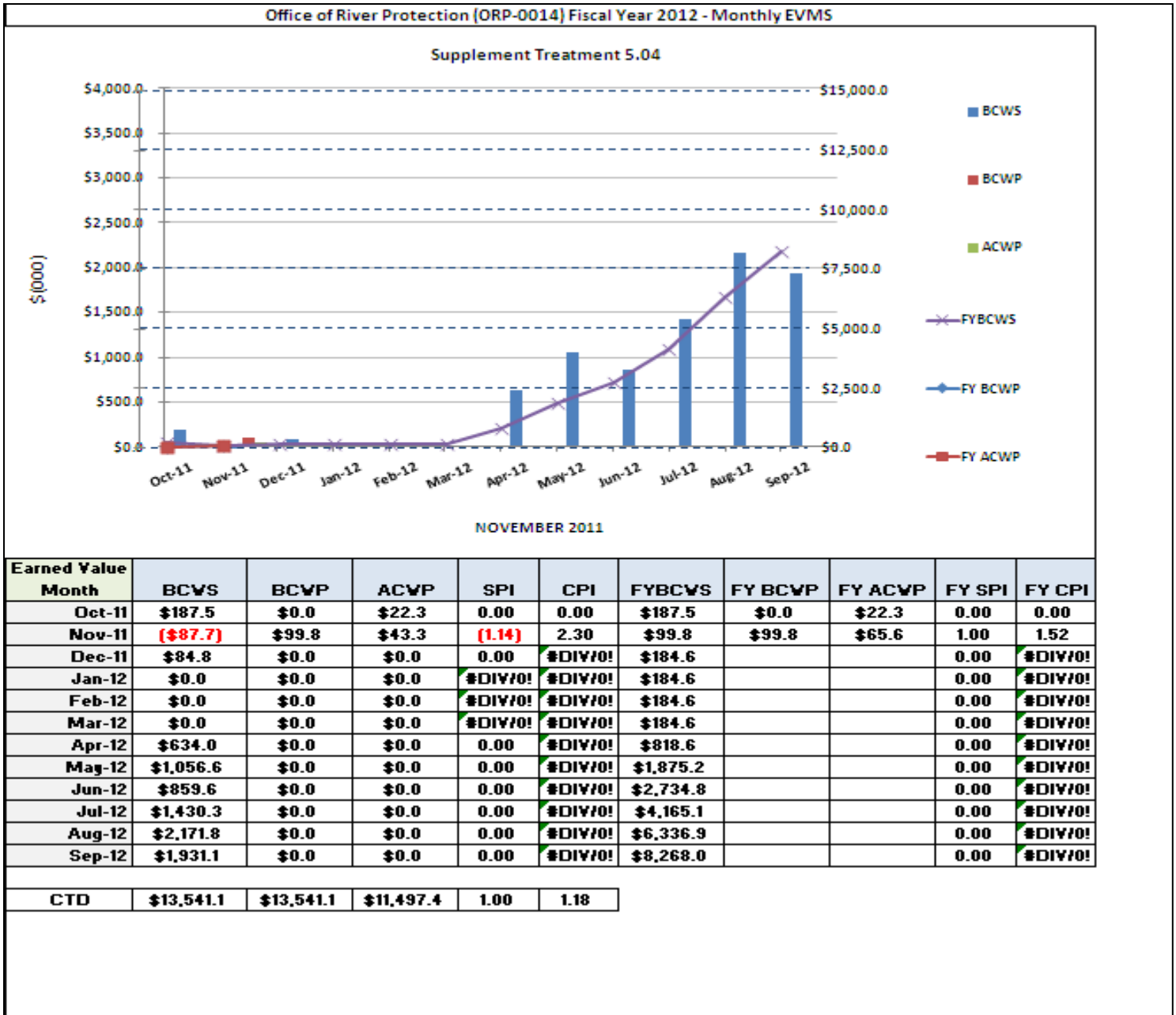


- **C-112 Retrieval, (\$727k) CM (SV)** Retrieval operations did not start for the second scheduled month due to continued emphasis on completion of construction punch list items and startup/readiness (\$1123k).

 - Readiness has been hampered by the JCO for potential failure of waste transfer systems due to freezing and solids participation/deposition. This issue is expected to be resolved in December and retrieval operations started. The unfavorable variance for operations was partially offset by schedule recovery on startup/readiness (\$359k)
- **C-107 Retrieval (\$1859k) CM (SV)** Retrieval operations were prevented due to issues with the AN-106 receiver tank supernate pump. Attempts to restart the pump with the aid of water flushes and a new motor starter have been unsuccessful, and replacement of the pump will be required.
- **C-102 Retrieval (\$327k) CM (CV)** ahead of schedule on retrieval system installation work packages, foam removal, and riser inspections (\$247k), and design/engineering/procurement (\$80k).



- **Mixer Pump Procurement (\$263k) CM (SV)** The mixer pump procurement, planned in October, has still pending evaluation of corrosion erosion test results (additional testing may be required and is being discussed).
- **Tank Waste Sampling (\$210k) CM (SV)** driven by two root causes:
 - Early completion of a grab sample to support SST C-107 retrieval (\$121k)
 - CM point adjustment for implementation of BCR RPP-12-020, “Core Sampling Platform - Transfer and Deferral,” which deferred and replanned BCWS for the platform readiness activities consistent with the need to perform core sampling activities in FY 2013 (\$89k).



- *WTP Pre-Treatment Alternative Studies, (\$55k), CM (CV) from self-performing WTP technology development baseline studies, reducing subcontractor cost with less than expected 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:

Conceptual Design activities continue on the Interim Hanford Storage and Secondary Liquid Waste Treatment Projects.

The Secondary Liquid Waste Treatment Project conducted a two-day Alternatives Analysis workshop the week of December 5, 2011 to evaluate four different waste package sizes and corresponding waste mixing equipment and package handling alternatives associated with the different waste package sizes. The workshop resulted in the selection of a ¼ height ISO container as the preferred waste package size that will be further developed during Conceptual Design.

Significant Planned Actions in the Next Six Months:

- Continue Conceptual Design for both the Interim Hanford Storage and Secondary Liquid Waste Treatment Projects.
- Issue the Value Engineering Reports for the Interim Hanford Storage and Secondary Liquid Waste Treatment Projects.
- Issue the Safety Design Strategy and Process Hazard Analysis Report for the Interim Hanford Storage Project.
- Issue Environmental & Communication Plans for both the Interim Hanford Storage and Secondary Liquid Waste Treatment Projects.
- Complete the Conceptual Safety Design Report for the Interim Hanford Storage project.
- Complete Conceptual Design for both the Interim Hanford Storage and Secondary Waste Treatment Projects.

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:

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: 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:

None

Issues:

None

WASTE TREATMENT AND IMMOBILIZATION PLANT (WTP) PROJECT

Number	Title	Due Date	Status
M-062-01X	Submit Semi-Annual TPA Project Compliance Report	01/31/2012	On Schedule

The WTP Project currently employs about 3,613 Full-Time Equivalent (FTE) contractor (Bechtel National, Inc. [BNI]) and subcontractor personnel, including 961 craft, 513 non-manual, and about 194 subcontractor personnel FTEs working at the WTP construction site (all facilities). As of November 2011, the project was 62 percent complete, design and engineering was 84 percent complete, procurement was 66 percent complete, construction was 59 percent complete, and startup and commissioning was 14 percent complete.

The overall WTP Project schedule variance in November was a positive \$23.6M; the cost variance was a negative \$26.1M. The cost variance was due to Engineering Design, Construction Crafts, Plant Equipment, and Construction Subcontracts; and the schedule variances primarily were related to Plant Equipment and Plant Material.

Following is the status through the end of November for current project issues.

Significant Past Accomplishments:

- Aerosol testing to determine realistic entrainment coefficient for the Process Vessel Vent Exhaust (PVV) system has been started for PT.
- Completed facility concrete design and design of 35 Hot Cell Jumper Frames in PT.
- Completed 83% of the concrete in the HLW facility with 58ft elevation walls continuing.
- Substantially completed mechanical systems design for the LAW facility.
- Receipt of the ammonia storage vessels at the construction site for BOF

Significant Planned Actions in the Next Six Months:

- Complete erection of 4th-tier structural steel in PT (77ft to 98ft elevation).
- Perform Large Scale Integrated Testing in 4ft and 8ft vessels to resolve PT mixing issues.
- Set in-place two piping modules (PA07 upper, PA01 lower) in the PT black cells.
- Receive Plant Wash and Drains vessel for HLW (RLD-VSL-8).
- Complete installation of LAW melter power supplies
- Complete installation of the LAW autosampler (ASX system).
- Complete installation of the LAB autosampler System.
- Complete construction of the BOF cooling tower.
- Complete construction of BOF switchgear building.

Issues:

- PT Facility:
 - The reduction in the amount of funding for FY 2012 has caused a significant amount of work to be pushed out into the future. Trends and Baseline Change Proposals (BCP) are being processed to incorporate these changes

- PVP Aerosol testing at Parsons is taking longer than expected. Due to unforeseen complications during testing execution, full results of the testing effort may not be available until mid-February 2012. The impact of this schedule slip is not well defined at this time, due to simultaneous impacts of the FY 2012 funding reduction.
- No significant issues in HLW, LAW, LAB or BOF at this time.

PRETREATMENT (PT) FACILITY

The Pretreatment (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 November 2011, the PT Facility is 51 percent complete overall, with engineering design 79 percent complete, procurement 49 percent complete, and construction 41 percent complete.

Significant Past Accomplishments:

On-going work includes installation of rebar for the placement of Control Building basemat and 98ft elevation slabs, 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, and structural steel at the 77ft elevation.

Completed facility concrete design and completed design of 35 Hot Cell Jumper Frames. Completed Informational testing for validation of the assumption that Newtonian fluid model bounds non-Newtonian fluids. Test results are being evaluated by BNI. Project Execution Plan for the Large Scale Integrated Testing program (LSIT) was updated. Aerosol testing to determine realistic entrainment coefficient for the Process Vessel Vent Exhaust (PVV) system has been started at Parsons Facility in Pasco.

BNI is actively working to resolution of the issues raised by DOE regarding vessel material selection. Draft report of the BNI evaluation is scheduled to be available to DOE in January 2012.

Completed as-built measurements of on-site Waste Feed Receipt Process (FRP) vessels, in preparation of the modifications resulted from the changes in the seismic criteria and chemical processes. Successfully completed Verification and Validation (V&V) of Quantitative Risk Analysis (QRA) for Hydrogen in Piping and Ancillary Vessels (HPAV). Completed HAZOP's for the HLW Lag Storage and Feed Blending Process (HLP) and the FRP systems.

PT critical paths primarily flows through the vessel Lag Storage and Feed Blending Process (HLP)-22 installations. The next critical path flows through CXP vessel alterations, followed by the hot cell vertical pumps, integrated pump frames, and rigid electrical jumpers. The tertiary critical path flows through installation of HVAC PVV fans and blowers, followed by completion of the Filter Cave. BNI is updating their plans for the FY 2012 activities based on the reduced funding plan that impacts PT facility. The re-plan (BCP 06-05858) is targeted to be completed by the end of January 2012.

Significant Planned Actions in the Next Six Months:

- Complete aerosol testing to determine entrainment coefficient for the PVV system
- Obtain Ecology approval of the permit packages to proceed with the alteration of the on-site vessels FRP -2A/B/C/D and UFP-62A/B/C
- Set in-place 2 piping modules (PA07 upper, PA01 lower) in the black cells
- Complete removal of the vessel CXP-001 from the black cell in accordance with the modified CXP system design
- Set Hot Cell Vertical door drive mechanism replacement gearbox and switch
- Complete fabrication of Lag Storage and Feed Blending Process (HLP) vessels-27A/B

- Perform LSIT in 4ft and 8ft vessels for resolving mixing issues
- Complete placements for the Control Building basemat, and make initial 98ft elevation slab placements
- Complete remaining mechanical systems re-committed design packages
- Continue erection of 4th tier structural steel (77ft to 98ft elevation)
- Complete resolution of the material selection issues with the vessels

Issues:

- The reduction in the amount of funding for FY 2012 has caused a significant amount of work to be pushed out into the future. Trends and Baseline Change Proposals (BCP) are being processed to incorporate these changes
- PVP Aerosol testing at Parsons is taking longer than expected. Due to unforeseen complications during testing execution, full results of the testing effort may not be available until mid-February 2012. The impact of this schedule slip is not well defined at this time, due to simultaneous impacts of the FY 2012 funding reduction.

HIGH-LEVEL WASTE (HLW) FACILITY

The High Level Waste (HLW) Facility will receive the separated high-level waste from the Pretreatment (PT) Facility. The concentrate is blended with glass formers and converted into molten glass in one of the two HLW melter 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 57 percent complete overall, with engineering design 86 percent complete, procurement 72 percent complete, and construction 38 percent complete.

Significant Past Accomplishments:

Following re-sequencing of the slab over the Filter Cave and the associated walls, the critical path has shifted to Melter Cell #2 build out. This will increase installation unit rates for commodities in the Filter Cave as it extends the use of overhead cranes for setting steel. The near term critical path activities now include two Melter Cave walls, installation of 4 wall modules, and steel liner plate and insulation on the floor. The submerged bed scrubber and High Efficiency Mist Elimination vessels are the major procurements associated with the build out. Current scheduled set date is May 2013. The vessels are in production and 50% and 60% complete respectfully with the last to deliver in January of 2013.

The remaining four of the 32 Dampers have arrived on site, closing a multinational coordination effort to design, fab, and construct dampers for the C5 Ventilation, Melter Offgas, and Pulse Jet Offgas systems. Electrical and piping commodities are progressing throughout the -21ft, 0ft and 14ft elevation, including cooling water, cable trays and supports, and fire protection piping. Sub-Contractors are also continuing with applying special coatings, installing Heating, Ventilation, and Air Conditioning (HVAC), fire protection piping, and liner plate installations. 83% of the concrete has been poured in the facility with 58ft elevation walls continuing.

Significant Planned Actions in the Next Six Months:

- C5V Housing and Remote-Operated Damper Installations
- Receive Plant Wash and Drains Vessel (RLD-VSL-8)
- Receive Primary Offgas Vessel HEME Vessel
- Stage Rinse Bogie with Rinse Vessel in Canister Rinse Tunnel

Issues:

No significant issues at this time.

LOW-ACTIVITY WASTE (LAW) FACILITY

The Low-Activity Waste (LAW) Facility will vitrify LAW from the Pretreatment (PT) Facility. Waste will be mixed with glass formers, vitrified into glass at a design capacity of 30 metric tons per day, and placed in stainless steel containers that will be disposed on the Hanford Site in the Integrated Disposal Facility. The LAW Facility is 67 percent complete, with engineering design 88 percent complete, procurement 85 percent complete, and construction 67 percent complete.

Significant Past Accomplishments:

Electrical systems design continues in support of all equipment, controls, and lighting throughout the facility. For example, several instrument data sheets were issued for the LAW Melter Process (LMP) system. Several architectural floor plans and finishing schedules were issued. A committed calculation was issued - *Fatigue Assessment for the LAW Thermal Catalytic Oxidizer (TCO)* for the LAW Secondary Off-gas/Vessel Vent Process (LVP) system. This month BNI Engineering also issued an engineering specification - *Engineering Specification for Exhausters and Hoses*. Piping isometric drawings were issued for the LMP and LVP systems. Piping and Instrumentation Diagrams (P&IDs) were issued for the Low Pressure Steam (LPS), Secondary Off-gas/Vessel Vent Process (LVP), Instrument Service Air (ISA), and Concentrate Receipt Process (LCP) systems. Pipe support drawings were issued for the Chilled Water (CHW) and Radioactive Liquid Waste Disposal (RLD) systems.

Procurement activities for the LAW facility are currently focused on the LVP system components. Engineering review of vendor calculations and vendor interactions continued as a major emphasis during the ongoing procurement of the LVP system components. Those BNI/vendor interactions progressed well through the month. The contract was awarded for High-Efficiency Particulate Air (HEPA) pre-heaters. Many process monitoring instruments were received during the month including Flow Transmitters (FT), Pressure Differential Transmitters (PDT), and Temperature Transmitters (TT) for the C2V ventilation system; PTs for the Autosampling (ASX), High-Pressure Steam (HPS), ISA, Plant Service Air (PSA), and RLD systems; and PDTs for the C3V and C5V systems.

The primary areas of construction focus continued to be facility partition wall installation and equipment installation for the Container Finishing Handling (LFH) system. For example, installation of the decontamination manipulators and south finishing line dual-rail hoist for the LFH system continued. Other on-going construction activities during December included installation of the pour cave monorail hoists for the Container Pour Handling (LPH) system, Medium-Voltage Electrical (MVE) transformers, and Low-Voltage Electrical (LVE) equipment.

Integrated Control Network (ICN) development continued with software design and testing for the following systems:

- Melter Feed Process (LFP)
- Container Finishing Handling (LFH)
- Auto Sampling (ASX)
- Secondary Off-gas/Vessel Vent Process (LVP)

Significant Planned Actions in the Next Six Months:

- Complete installation of melter power supplies
- Complete installation of auto sampling (ASX) system
- Receive Exhausters for LVP system
- Receive HEPA Pre-heaters for LVP system
- Receive HEPA Housings for LVP system

Issues:

No major issues at this time

ANALYTICAL LABORATORY

The Analytical Laboratory (LAB) will support the Hanford Tank Waste Treatment and Immobilization (WTP) operations by analyzing feed, vitrified waste, and effluent streams. The LAB is 50 percent complete overall, with engineering design 79 percent complete, procurement 75 percent complete, and construction 73 percent complete.

Significant Past Accomplishments:

As construction marches forward towards the substantially complete milestone numerous key procurements have arrived to keep the construction team on schedule. One example of these procurements included several key control valves for the autosampling system. The primary focus still remains on the installation of partition walls and the build out of radiological labs.

The LBL engineering team continues to tackle design changes as needed, and the team is currently engaged in Heating, Ventilation, and Air Conditioning (HVAC) work to accommodate additional heat loads not originally anticipated.

As the facility continues to take shape, procedural and method development is progressing. The LAB team provided comments for consolidation on the Tank Mixing-Sampling Demonstration Plan, which provides a discussion of how the Waste Acceptance Criteria (WAC) sample is to be taken.

Significant Planned Actions in the Next Six Months:

- Install Autosampler HEPA filter housings frames
- Complete installation of Autosampler System
- Install can crusher
- Set pumps in C5 pit
- Install Hot Cell import/export motors

Issues:

No major issues.

BALANCE OF FACILITIES (BOF)

The Balance of Facilities (BOF) provides services and utilities to support operation of the main production facilities – PT, HLW, LAW, and LAB. The BOF is 47 percent complete overall, with engineering design 69 percent complete, procurement 47 percent complete, and construction 63 percent complete.

Significant Past Accomplishments:

The Defense Nuclear Facility Safety Board (DNFSB) was on site for several days to complete a review of the WTP electrical design with added focus on the Emergency Turbine Generator (ETG). Fortunately, On Power and Rolls Royce were here for a separate set of meetings, and several of their technical experts were able to attend the DNFSB meeting, and answer several of the technical questions asked by the board.

The receipt of the ammonia storage vessels at the construction site marked a major accomplishment for the BNI engineering and procurement team.

Significant efforts continued to be applied in preparation for the turnover of B87 and B91 this year. Additional walk-downs of the building were performed to evaluate any potential safety concerns, and hazards analysis meetings are beginning to ensure all documentation is updated and in alignment for the facility turnover.

An area of current concern is the impacts of high energy sources, such as a failure of a compressed air storage tank, on safety significant equipment. Engineering has completed the calculations, determined potentially affected equipment, and mitigating strategies are currently being developed.

Significant Planned Actions in the Next Six Months:

- Complete construction of cooling tower
- Complete construction of BOF switchgear building
- Install structural steel for anhydrous ammonia facility
- Receive anhydrous ammonia system

Issues:

No major issues.

Waste Treatment Plant Project - Percent Complete Status															
Through November 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
Facilities															
Low-Activity Waste	963.8	644.9	67%	231.8	204.8	88%	240.7	205.4	85%	343.2	228.3	67%	148.1	6.5	4%
Analytical Lab	352.4	175.1	50%	55.5	43.6	79%	56.2	42.1	75%	105.4	76.6	73%	135.2	12.6	9%
Balance of Facilities	538.9	255.3	47%	90.8	62.6	69%	81.3	37.9	47%	230.6	144.2	63%	136.1	10.6	8%
High-Level Waste	1,505.6	853.3	57%	348.7	299.1	86%	457.7	330.4	72%	581.4	219.2	38%	117.8	4.5	4%
Pretreatment	2,529.8	1,294.6	51%	728.3	572.6	79%	713.1	346.8	49%	905.8	368.3	41%	182.6	6.8	4%
Shared Services	4,729.3	3,394.3	72%	1,025.3	906.6	88%	472.1	378.2	80%	1,428.0	1,070.8	75%	455.7	121.7	27%
Total WTP w/o UB	10,619.8	6,617.4	62%	2,480.5	2,089.3	84%	2,021.2	1,340.8	66%	3,594.4	2,107.3	59%	1,175.6	162.7	14%
Undistributed Budget	0.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total WTP	10,619.8	6,617.4	62%	2,480.5	2,089.3	84%	2,021.2	1,340.8	66%	3,594.4	2,107.3	59%	1,175.6	162.7	14%

Source: WTP Contract Performance Report - Format 1, Data for November 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.