Office of River Protection

Tri-Party Agreement
Project Summary Report
December 2010

Tri-Party Agreement

Office of River Protection
Tri-Party Agreement
Quarterly Milestone Review Meeting
December 2010

Page	Topic	Leads
3	M-45, -50, -60 Single-Shell Tank Corrective Action	Bob Lober / Joe Caggiano
6	M-45-00, Complete Closure of All Single-Shell Tank Farms, D-00B-01, -02, -03, -04 - TWRWP Status - Tank in Appendix H Status	Chris Kemp / Jeff Lyon
13	M-45-91, SST Integrity Status	Jeremy Johnson / Michelle Hendrickson
15	Interim Stabilization Consent Decree	Jeremy Johnson / Nancy Uziemblo
16	M-62-40, Tank Waste System Plan	Ron Koll / Dan McDonald
17	FY 2010 & FY 2011 ORP TPA Cost & Schedule Performance	Kathy Higgins/Dan McDonald /Jeff Lyon
14	Complete Acquisition of New Facilities and Submit Part B Permit Applications - M-90-00 - M-47-00 - M-62-00	Glyn Trenchard / Dan McDonald
	BREAK	
28	TPA Milestone Statistics	Woody Russell / Dan McDonald / Jeff Lyon
37	WTP - Immobilization Plant Project M-62-20, M-62-01U, -01V, M-062-49, D-00A-17, D-00A-01	Wahed Abdul /Jeff Trent / Gary Olsen/ Dan McDonald
40	WTP Pretreatment (PT) Facility D-00A-18, -19, -13, -14, -15, 16	Wahed Abdul/Dan McDonald
43	High-Level Waste (HLW) Facility D-00A-20, -21, 02, 03	Jeff Trent/Dan McDonald
45	Low-Activity Waste (LAW) Facility D-00A-07, -08, -09	Gary Olsen/Dan McDonald
47	Analytical Laboratory D-00A-005	Gary Olsen/Dan McDonald
49	Balance of Facilities (BOF) D-00A-12	Gary Olsen/Dan McDonald

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.

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 workplan. Last meeting was November 17, 2010. Meeting minutes have been drafted and are in review by the parties. Agreed to changes are documented via approved meeting minutes entered into TPA administrative record and applicable change requests.

M-045-92A, DOE and Ecology will establish, no later than March 31, 2010, selection criteria for installation of additional interim barriers at additional WMAs (beyond the T-106 and TY barriers), Due: 3/31/2010, Status: Complete

M-045-92B, DOE shall submit to Ecology for approval, a final design and monitoring plan for TY farm interim barrier, Due: 3/31/2010, Status: Complete

M-045-92C, Complete Installation of TY farm interim barrier, Due: 9/30/2010, Status: Complete

M-045-90, Complete interim barrier demonstration report for the T-106 interim barrier, which report shall include a recommendation and commitment on whether to proceed with additional interim barriers and an evaluation of the barrier's ability to reduce water infiltration that drives migration of subsurface contamination to groundwater, Due: 9/30/2010, Status: Complete

M-045-92D, Complete negotiations to schedule the remaining 4 additional barriers, unless DOE and Ecology agree that monitoring data does not support continued installation of interim barriers. Due: 12/31/2010, Status: On Schedule – ORP and Ecology met on December 7, 2010.

> If negotiated, complete installation of 4 additional interim barriers at a rate of one per year, with the first being completed by June 30, 2012. Prior to beginning construction and at least one year before construction is to be complete (06/30/2011), DOE will submit to Ecology a final design and monitoring plan for each interim barrier.

M-045-92E, 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: 12/31/2010, Status: On Schedule – ORP and Ecology met on December 7, 2010. A follow-up meeting will be scheduled.

M-045-56G, Complete Implementation of Agreed to Interim Measures, Due: 07/31/11, Status: On Schedule

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

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-045-59, 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

Significant Past Accomplishments:

- T-Farm interim barrier monitoring continues; annual monitoring report issued.
- TY Interim Barrier Construction completed. Monitoring initiated.
- Continued direct push characterization in C Farm at various planned locations
- 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.
- Continued remediation technology assessments in support of a Corrective Measures Study for WMA C.
- Initiated 3-D SGE data collection of western 241-BY farm, using depth electrodes placed by direct push.
- Continued design activities for a surface barrier in 241-SX farm.

Significant Planned Actions in the Next Six Months:

- Continue direct push campaign in C Farm. Initiate direct push campaign in Eastern BY Farm, supporting Interim Barrier Design and Placement.
- Complete resistivity data analysis for western BY Farm, supporting interim barrier design.
- Perform resistivity data collection for 3-D SGE characterization of UPR-82 in C Farm.
- Continue remediation technology assessments in support of a Corrective Measures Study for WMA C.
- Process the TPA change with the updates to the WMA C work plan.
- Perform additional updates to WMA C RFI/CMS workplan based on requested changes from Ecology.
- Continue design of interim surface barrier for SX farm.
- Initiate the Data Quality Objective process for the Phase 2 RFI/CMS work plan for waste management area A/AX.

Issues:

None

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: On Schedule

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: On Schedule

M-045-80, Complete those portions of C-200 Closure Demonstration Plan, Due: 1/31/2011 Status: On Schedule. The four deliverables required under M-045-80 have been completed and will be formally transmitted from ORP to Ecology in December of 2010 or January of 2011.

M-045-81, Implement & complete all remaining activities in C-200 Closure 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, a Pipeline Feasibility Study, has been completed and will be formally transmitted from ORP to Ecology in December of 2010 or January of 2011.

D-00B-01, Complete Retrieval of Tank Wastes from 10 Remaining SSTs in WMA-C, Due: 9/30/2014, Status: On Schedule

D-00B-01A thru J, Submit Tank Retrieval Complete Certification, Due: TBD
Pursuant to the requirement at IV(B)(5) of the Consent Decree (CD) DOE must submit to Ecology a written certification that DOE has completed retrieval of a tank in accordance with the requirements of Appendix "C", Part 1, of the CD. Tanks currently in retrieval status are C-108, C-109, C-110, C-104, and C-111.

D-00B-02, Advise Ecology of the 9 SST's from which Waste Will Be Retrieved by 2022, Due: 9/30/2014, Status: On Schedule

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

D-00B-03, Initiate Startup Retrieval in At Least 5 of 9 SSTs in D-00B-02, Due: 12/31/2017, 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

D-00B-04, Complete Retrieval of Tank Wastes from the 9 SSTs in D-00B-02, Due: 9/30/2022, Status: On Schedule

D-00B-04A thru I, Submit Tank Retrieval Complete Certification, Due: TBD

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

TWRWP Status

Tank	TWRWP	Retrieval Technology	Additional Technology	Additional Technology
C-101	RPP-22520	MRS (per 10/7/10 agreement, to be Modified Sluicing)	-	-
C-102	RPP-22393	Modified Sluicing	MS-ITV	-
C-103	**RPP-21895**	**Retrieval Completed**		
C-104	RPP-22393	Modified Sluicing	MS-ITV	-
C-105	RPP-22520	MARS-VAC	-	-
C-106		**Retrieval Completed**		
C-107	RPP-22393	MARS-S		
C-108	RPP-22393	Modified Sluicing	Chemical Dissolution	MS-ITV
C-109	RPP-21895	Modified Sluicing	MS-ITV	-
C-110	RPP-33116	Modified Sluicing	-	-
C-111	RPP-37739	Modified Sluicing	-	-
C-112	RPP-22393	Modified Sluicing	MS-ITV	-

Significant Past Accomplishments:

- Started electrical tie-ins for the restart of the C-104 retrieval. Prepared the technical sampling and analysis plan for 241-C-109, RPP-PLAN-47927.
- Started receiving sample analysis draft results of the hard heel material removed from C-110.
- Continued testing of a MARS sluice educator system at Columbia Energy in Pasco and continued testing of the Columbia Test Center for testing of the MARS sluicing system.
- Continued design activities for C-112 sluicing system.
- Completed excavation and started saltwell pad removal at the C-107 in preparation of the Mobile Arm Retrieval system vacuum end-effector.

Significant Planned Activities in the Next Six Months:

- Obtain C-109 heel samples
- Complete installation of the new large riser in C-107.
- Complete construction of MARs with a sluicing end-effector for C-107 retrieval.
- Initiate construction of C-108 hard heel retrieval system, and start up of retrieval activities.
- Complete C-111 retrieval.
- Complete C-112 design and initiate procurement.
- Operate hydraulic arm Articulating Mast System (AMS) into C-104 to aid removal of obstruction underneath slurry pump and resume and complete C-104 retrieval.
- Finish testing of the MARS with the vacuum educator.

Issues:

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 ROD is in the winter of 2011.

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

Tank 241-C-106

Significant Past Accomplishments:

None

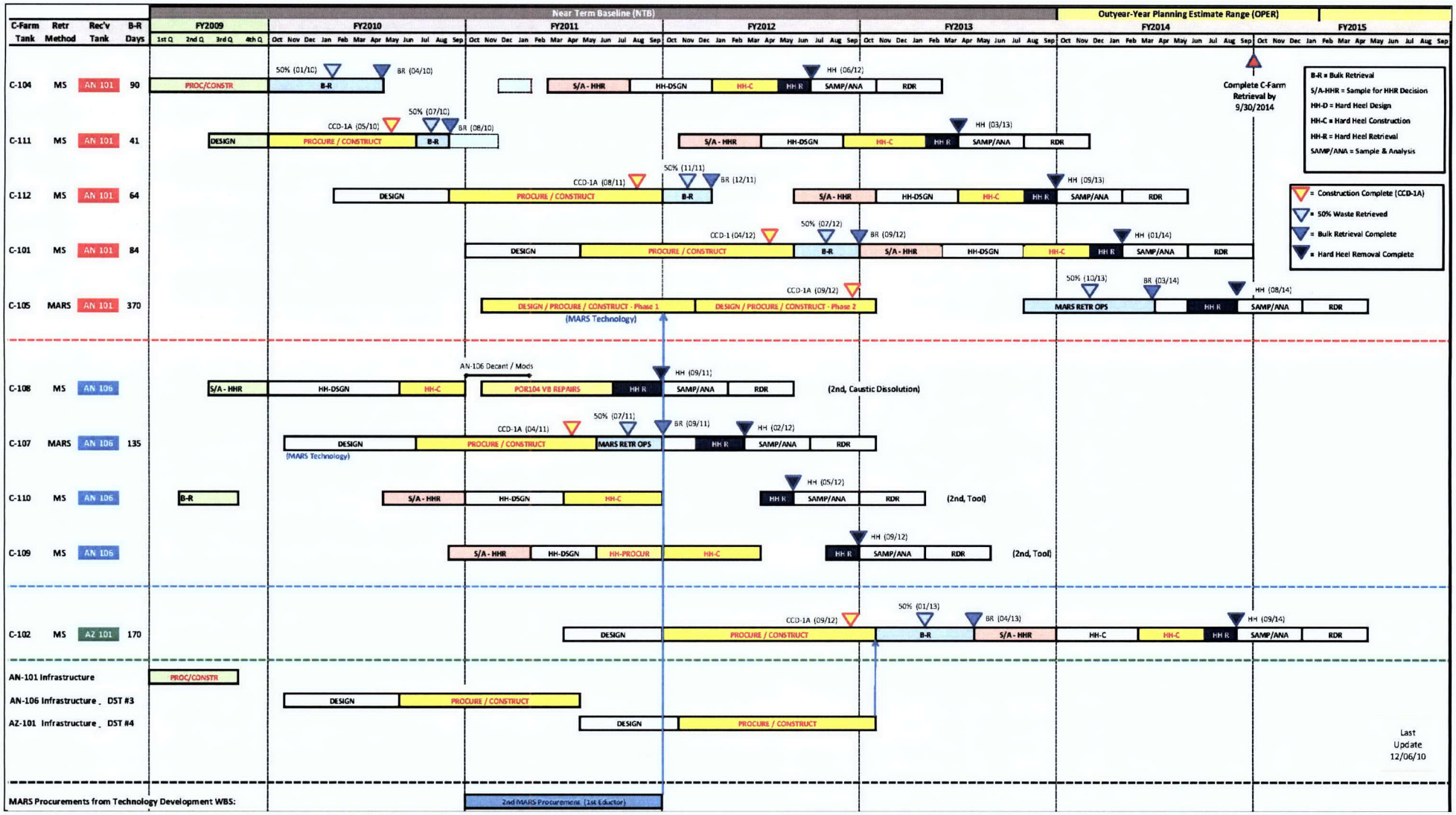
Significant Planned Activities in the Next Six Months:

- 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.)
- Continue PA workshops with Ecology, EPA, NRC, and DOE HQ focused on residual waste in C Farm tanks and pipelines following retrieval.

Issues:

C-Farm Life Cycle Baseline 2014 Compliance Schedule

C-Farm Retrieval 12/7/2010 Reflects Baseline as of 12/3/10 (incorporates BCRs-032 and 033)



Tank Retrievals with Individual Milestones

Tank 241-S-102

M-045-15, Interim Completion of Tank S-102 SST Waste Retrieval and Closure Demonstration Project, Due: 6/30/11 Status: At Risk. See discussion below under "Issues". Change Request M-45-07-01 approved by DOE and Ecology on December 4, 2007.

M-045-15A, Embedded Milestone, Submit a Retrieval Data Report Pursuant to Agreement Appendix I, Due: 6/30/11, Status: At risk. See discussion below under "Issues".

M-045-15B, Embedded Milestone, Remaining Wastes have been adequately Characterized, and a Risk Assessment has been completed for residuals that remain in the tank, Due: 6/30/11, Status: At risk. See discussion below under "Issues".

M-045-15C, Embedded Milestone, An update to the S-102 Component Closure Activity Plan has been submitted by DOE, Due: 6/30/11, Status: At risk. See discussion below under "Issues".

M-045-15D, Embedded Milestone, if appropriate, DOE has requested an exception to waste retrieval criteria pursuant to Agreement Appendix H, Due: 6/30/11, Status: At risk.

Significant Past Accomplishments:

None

Significant Planned Activities in the Next Six Months:

None

Issues:

- Retrieval of Tank 241-S-102 was not completed by TPA milestone date of March 31, 2007, due to pump failure. It is technically imprudent to attempt to accelerate retrieval of S-102, at this time, because of the rheological nature of the waste.

- In a letter dated August 15, 2006, Ecology stated that submittal of Component Closure Activity Plans, for retrieved tanks, should continue to be suspended until June 30, 2009, or within 120 days after the Final Tank Closure and Waste Management Environmental Impact Statement (TC&WM EIS) Record Of Decision (ROD) is issued, whichever is earlier. In a letter dated November 12, 2009, Ecology extended its suspension until 180 days after the issuance of the final TC&WM EIS. It is anticipated that the final TC&WM EIS will not be issued until the Spring or Summer of 2011. Submittal of the Closure Plan could not occur, then, until several months after the M-45-15 milestone is due.

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

SST Integrity Assurance

M-045-91, Establish panel and provide report on SST integrity assurance review, Due: 9/30/2010, Status: Completed

M-045-91A, Submit an agreement change package with interim milestones to implement the panels recommendations, Due: 12/29/2010, Status: Complete (9/27/10)

Significant Past Accomplishments:
Initial discussions with Ecology regarding the Panel's recommendations and draft TPA Change Package held on 9/27/10, 11/8/10, and 12/3/10. TPA negotiation meeting held 12/9/10. Package finalized by ORP and sent to Ecology for attorney review.
Continued Dome deflection surveys
Continued Visual analyses of SSTs
Continued work on the SST AOR modeling efforts for Type II tanks

Significant Planned Actions in the Next Six Months:
Ecology and ORP reach agreement on Final Change Package by 12/28/10.
Begin DQO sessions for side wall coring.
Begin analytical test plan development for C-107 dome core analyses efforts.
Begin developing a Test Plan to investigate chemistries as specified in RPP-43116.

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

Complete Acquisition of New Facilities and Submit Part B Permit Applications

M-090-11, Complete the Negotiation of No More Than Two Canister Storage Facility Construction Interim Milestones, Due: 12/31/12, Status: On Schedule.

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-045-00, 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

M-062-30, Complete negotiations establishing milestones for near term actions, Due: 10/25/11, Status: On schedule

M-062-45ZZ, Following negotiations convert M-062-31-T01 thru M-062-34-T01 to interim milestones per M-062-45.3, 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

Interim Stabilization Consent Decree

D-001-00, Complete Interim Stabilization of all 29 SSTs, Due: 09/30/04, Status: Completed on March 31, 2004, with discontinuation of pumping in U-108 and subsequent consultation with Ecology staff. Interim stabilization of S-102 and S-112 is held in abeyance by third amendment to the Consent Decree. ORP's obligation to interim stabilize S-112 was satisfied upon completion of retrieval operations. Retrieval of S-102 has been impacted by the spill at this tank. A review of the January 25, 2010, video of the tank has shown approximately 2,400 gallons of supernatant liquid remaining. This is below the criteria for interim stabilization of less than 5000 gallons supernatant liquid.

On October 21, 2010, ORP received a letter from Ecology notifying ORP of Ecology's decision to require ORP to Interim Stabilize tank 241-S-102 within 18 months of receipt of its notification. ORP is currently preparing the required documentation to demonstrate that tank 241-S-102 meets the requirements for interim stabilization, as set forth in Case Number CT-99-5076, Third Amendment.

Significant Accomplishments:

- **D-001-00-R46, Quarterly Written Report,** Due: 10/31/10, Status: Completed 10/28/2010
- Formal documentation for completion of S-102 interim stabilization submitted to Ecology 12/9/10.

Significant Planned Actions in the Next Six Months:

- **D-001-00-R47, Quarterly Written Report**, Due: 01/31/2011, Status: On Schedule

Issues:

- Tank S-102 retrieval not completed by milestone M-045-05A date of March 31, 2007.

SYSTEM PLAN

M-062-40A, Select a minimum of three scenarios that will be analyzed in the system plan, Due: 10/31/2010, Status: Completed 10/27/10

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:

Ten scenarios were agreed to on 10/27/10 for analysis in System Plan Rev. 6, thereby completing milestone M-062-40A. An additional four scenarios will be analyzed and documented as time and resources permit.

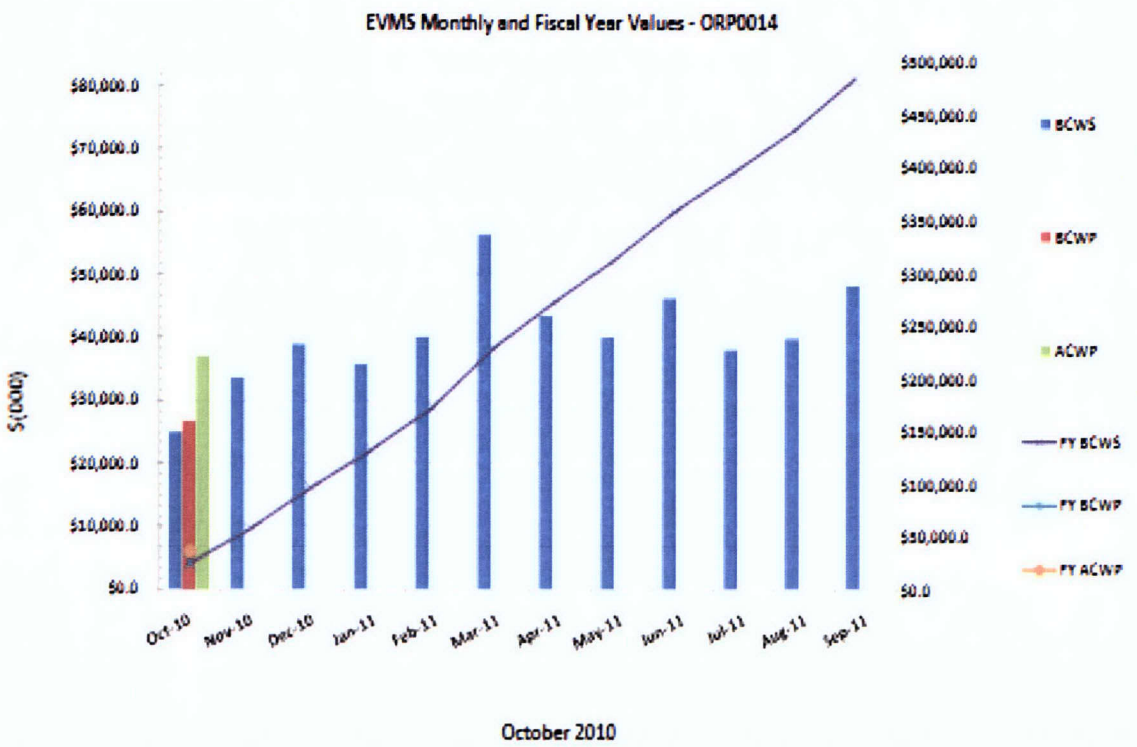
Significant Planned Actions in the Next Six Months:

Work on System Plan Rev. 6 supporting M-062-40B during the next six months will include the following activities: Develop a detailed work schedule, develop detailed assumptions for each scenario, prepare model modification requests, initiate HTWOS modeling, V&V and data analysis and perform periodic reviews with ORP and Ecology.

Issues:

None.

Tank Farm Project EVMS Status – October 2010



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	$33,556.9					$58,475.7				
Dec-10	$38,904.4					$97,380.1				
Jan-11	$35,766.1					$133,146.2				
Feb-11	$40,040.6					$173,186.8				
Mar-11	$56,397.3					$229,584.1				
Apr-11	$43,404.2					$272,988.3				
May-11	$39,960.9					$312,949.2				
Jun-11	$46,211.1					$359,160.3				
Jul-11	$38,060.7					$397,221.0				
Aug-11	$39,762.3					$436,983.3				
Sep-11	$48,147.5					$485,130.8				

CTD	$784,974.5	$780,015.7	$729,206.5	0.99	1.07

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.

WRPS October Project Performance - ($k)										
	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC	EAC	VAC
CM	24,918.8	26,782.0	37,083.6	1,863.2	(10,301.6)	1.07	0.72			
FYTD	24,918.8	26,782.0	37,083.6	1,863.2	(10,301.6)	1.07	0.72	485,130.8	482,423.6	2,707.2
CTD	784,974.5	780,015.7	729,206.5	(4,958.8)	50,809.2	0.99	1.07	2,094,328.3	2,027,701.1	66,627.2

Red shaded cells indicates a SPI/CPI less than .90;
Green shaded cells indicate a SPI/CPI between .90 and .99; and
Blue shaded indicates a SPI/CPI greater than or equal to 1.

The favorable current month (CM) schedule variance (SV) of $1.9M reflects continued schedule recovery on the Project. Significant contributors for the CM SV are: 1) DST Space Management ($1.0M) for early completion of an FY11 242-A Evaporator campaign; 2) SY Transfer Line Upgrades Project ($0.6M) schedule recovery (excavation, fabrication and pipe removal); and 3) Tank Farm Upgrades progress on exhauster upgrades, removal of obsolete equipment, and drawing reconstitution ($0.6M).

The CM cost variance (CV) of ($10.3M) is driven by: 1) the incorporation of a revised pension payment schedule of 10 months in October, one month in November and one month in December. The budget profile will be revised to reflect the agreed upon payment approach. 2) SST retrieval cost impacts in C-111 due to increased hot water additions and recirculation in attempt to dissolve the hard crust ($0.7M); C-107 due to exhauster downtime costs and refurbishment, labor costs for Mobile Arm Retrieval System (MARS) development, and unplanned procurement of an excavator ($0.5M); and 3) C-104 due to costs for required modifications to the Articulating Mast System (AMS) after testing ($0.4M). The unfavorable CVs are partially offset by a number of favorable variances in the areas of DST Space Management ($0.6M); Base Operations ($0.5M); and the SY Transfer System Modification Project, TOC Facility Operations, and Supplemental Treatment ($0.7M).

The unfavorable CTD SV of ($5.0M) is driven by: 1) SST retrievals related to C-104 pumping obstruction resulting in need to develop the AMS and transfer pump replacement ($2.0M); C-108 prioritization of resources to other retrievals ($1.8M); and C Farm Infrastructure DST Receiver Tank #3 progress impacted by change in designation of tank from AY-101 to AN-106 ($0.8M); and 2) Retrieval/Closure Program related to MARS development due to change to an eductor vacuum system ($0.8M); and Direct Push Sampling and Characterization ($0.4M) non-barrier work impacted by restricted access to C Farm due to retrieval activities and availability of field labor resources. The unfavorable SV is partially offset by favorable variances in the areas of Tank Farm Upgrades
($1.2M) for acceleration of DST Valve Assembly Upgrades and exhauster upgrades; DST Space Management ($1.0M) for acceleration of FY11 242-A evaporator campaign.

The unfavorable CTD SV will continue to improve in future months due to the following: 1) the "limits of technology" has been declared on SST C-111 which will result in additional progress and make resources available for other retrievals; 2) installation of the AMS in C-104 is nearing completion which will remove the pump obstruction necessary for retrieval; and 3) the large riser will soon be installed on SST C-107 allowing for installation of the MARS required for waste retrieval.

The favorable CTD CV of $50.1M is understated by approximately $10.8M due to costs for payment of 10 months of FY11 pensions without BCWP taken (see CM CV discussion above). The adjusted CV would be approximately $61.6M providing an adjusted CTD CPI of 1.08. Significant cost savings and efficiencies are reflected in the CTD CV focused in the areas of Tank Farm Upgrades ($12.3M), Retrieval/Closure Program Page 4 ($9.4M), Project Support ($8.1M), Next Generation Projects ($5.4M), TOC Facility Operations ($5.3M), and WTP Feed Delivery Program ($5.3M). However, CTD cost savings and efficiencies are not expected to be achieved at the same rate in FY11 due to incorporation of recognized efficiencies in future budgets and performance challenges imposed due to funding challenges.

WRP5 OctoberCTD Project Performance by Level 2 WBS ($k)										
	CTD BCWS	CTD BCWP	CTD ACWP	CTD SV	CTD CV	CTD SPI	CTD CPI	BAC	EAC	VAC
5.1- Base Operations	530,761.1	533,618.5	512,636.2	2,857.3	20,982.3	1.01	1.04	1,296,594.5	1,266,350.0	30,244.5
5.2- Retrieval and Close SSTs	164,261.7	157,285.9	147,236.7	(6,975.8)	10,049.2	0.96	1.07	414,875.0	402,616.1	12,258.9
5.3- WFD/Treatment Plng/DST Retrieval/Closure	86,450.1	85,599.8	66,120.0	(850.2)	19,479.8	0.99	1.29	346,320.7	318,332.9	27,987.8
5.4- Supplemental Treatment	3,501.6	3,511.5	3,213.6	9.9	297.9	1.00	1.09	23,452.3	27,316.2	(3,863.9)
5.5- Treat Waste	0.0	0.0	0.0	0.0	0.0	0.00	0.00	13,085.8	13,085.8	0.0
Total	784,974.5	780,015.7	729,206.5	(4,958.8)	50,809.2	0.99	1.07	2,094,328.3	2,027,701.0	66,627.3

The CTD SV was an unfavorable ($5.0M). The key contributors to the CTD SV are in the areas of:

Retrieval and Closure SSTs, ($7.0M):

- *C-104 Retrieval*, ($2.0M): due to an obstruction in the tank which is preventing the completion of waste retrieval. As a result, the AMS will be used to remove obstruction. The AMS is currently experiencing installation and testing delays. Additional delays occurred when the AN-101 supernatant pump failed.

- *C-108 Retrieval*, ($1.8M): due to delays in the fabrication of key equipment as the result of engineering and plant force resources being directed to higher priorities. Modifications, repairs, and inspections are needed to existing equipment prior to installation of new equipment.

- *C-Farm Infrastructure DST Receiver Tank 3*, ($0.8M): is the result of a change in designation of DST#3 receiver tank from AY-101 to AN-106; tank does not allow performance to be taken.

- *RA- Technology Development*, ($0.75M): is the result of a change in technical approach for the MARS Vacuum system to utilize an eductor based system, which caused additional testing and fabrication delays.

- *C-111 Retrieval*, ($0.7M): is the result of delays in construction due to the discovery of objects blocking several tank risers causing design changes and relocation of cameras and spray wands. While waiting on procured equipment, personnel were directed to higher priorities. Currently, personnel are working on the hard crust form remaining in the tank. In addition to the above variances, a favorable CTD SV of $1.2M was experienced in C-107 Retrieval resulting from the removal of C-107 obsolete equipment that was planned in FY11.

WFD/Treatment Plng/DST Retrieval/Closure, ($1.0M):

- *Next Generation Flow sheet/Glass Chemistry Suprt*, ($0.5M): due to delays in awarding design of the Cold Crucible Induction Melter (CCIM) technology scope that is based on resolution of outstanding Intellectual Property (IP) issues and access to WTP design information.

- *RA- AZ Condensate Line Upgrade*, ($0.5M): due to the inability to locate qualified vendor to perform NQA-1 standards which delayed procurement and installation of the new AZ-02A jumper. Additional field work execution delays of the AZ Condensate Line Upgrades due to the Ventilation Outage in the farm.

In addition to the above variances, a favorable CTD SV of $6.0M was experienced in *RA- AW COB Isolation* due to completion of the COB removal activities ahead of schedule by taking advantage of access available at AW Farm and securing required resources.

Offset by, Base Operations, $2.9M:

- *RA- DST Valve Assembly Upgrades*, $3.3M: is the result of the fabrication and installation of the AP/VP jumper ahead of schedule; a management decision that specific Startup and Testing activities identified in the project scope would not be required allowing full progress to be taken; accelerating engineering support for the Design Media and Fabrication Drawings for AN-A, AN-B, and AP Valve Pits, which was originally planned for FY11; early completion of the installation of the Valve Funnels and Positioning Plates in AZ-VP; and offset by delayed completion of procurement of spares.

- *242-A Evaporator Operation & Maintenance*, $1.7M: due to the accelerated completion of the first FY11 Campaign and implementation of a schedule correction for the Evaporator CM/PM activity.
In addition to the above variance, an unfavorable SV of ($1.2M) was experienced in *RA- Remove Obsolete Equipment* due to delays in field work for the DST Equipment Removal and Demolish. AN/AW Exhauster Project resulting from delayed work planning and competing resource needs.

The CTD CV was a favorable $50.8M. The key contributors to the CTD CV are in the areas of:

Base Operations, $20.9Mk:

- *SST Safe Storage & Operations*, $4.8M: due to continuous labor and subcontractor under runs as work did not materialize as planned; partially offset with maintenance over runs.

- *Liquidations*, $3.3M resulting from the accruals and the actuals at the FY11 provisional rates and the reversals are at the FY10 provisional rates.

- *Facility and Property Management*, $2.5M: due to FY09 savings resulting from unfilled positions and slow ramp up.

- *Finance Support*, $2.5M: Continuity of Service (COS) over liquidations in FY09; P-card volume credit; and material and labor under runs due to unfilled staff positions.

- *RA- Remove Obsolete Equipment*, $2.2M: due to less hours required to prepare the engineering documents to support the Demolish AN and AW Exhausters projects; use of lower cost engineering resources than planned to prepare the Engineering documentation for the DST Obsolete Equipment Removal Project; efficiency gained from experienced field support, and fewer field resources were needed to remove Area Radiation Monitor (ARM) in AP farm, and compressors in AP and AW farms;

and the use of similar planning packages which lessened review time for the DST Obsolete Equipment Removal projects.

- *RA- 222S Roof Replacement*, $2.1M: due to the completion of the 222-S roof replacement with significantly less cost than planned due to better conditions, less material removal, use of efficient roof removal equipment and less hazardous waste than planned.

- *Information Resource Management*, $2.0M: due to lower material expenditures as the result of receiving items from Yucca Mountain at a significant savings and Document Control's utilization of current staff.

- *RA - DST Valve Assembly Upgrades*, $1.7M: due to efficiencies and reduced pricing negotiated with the supply chain on the firm fixed price contract for the fabrication of the jumpers for the AP, AN-A, and AN-B Valve Pits, and condensed activities for the funnel replacements has resulted in savings on valve procurement and project support resources.

In addition to the above variances, an unfavorable CV was experienced in the *Hanford Pension Fund*, ($10.0M): due to October payment of 10 months of FY11 pension costs which was planned as a level of effort earned value method and did not allow for BCWP to be taken. The budget will be revised to reflect the agreed to payment schedule of 10 months in October, one month in November and one month in December.

WFD/Treatment Plng/DST Retrieval/Closure, $19.5M:

- *RA- WFE Technology Maturity Validation*, $4.6M: due to decreased procurement costs for WFE Component (304L Stainless Steel versus baseline cost for Hastelloy); lease versus buy for subsystem equipment; accomplished tasks with less hours than planned; lower contract rates; and PrHA and Nuclear Safety activities were completed with direct labor instead of higher priced contract resources.

- *WFD PE/Flow Sheet*, $1.5M: due to lack of contract support and hiring delays until scope was defined.

- *RA- AW COB Isolation*, $1.3M: due to efficiencies gained by awarding the competitive firm fixed-price contract to an experienced tank farm contractor, as well as the use of fewer resources than planned, this was the result of a strong, efficient working relationship between the HAMTC, Engineering, subcontractor, and construction craft.

- *TDD- RMF/SCIX/FNSR Technology/Evaluations*, $1.3M: due to the de-obligation of WRPS funds to direct fund both SNNL and Advanced Technologies and Laboratories (ATL/222-S Lab) in support of FBSR sample analysis and product testing.

- *WFD Technical Baseline*, $1.03M: due to technical tasks being completed with fewer engineering hours than expected. Higher priority scope has also pulled resources away delaying the completion of some of the technical documents.

- *RA- Secondary Waste Form Testing*, $0.9M: due to efficiencies associated with Ceramicrete® and FBSR test plan development, lower costs for purchasing chemicals for testing, and labor efficiencies in laboratory testing of samples.

- *Hanford IHLW Storage Project Support*, $0.5M: due to the utilization of prior knowledge within current staff which eliminated the need for additional engineering support.

- *IDF Glass Testing*, $0.6M: due to efficiencies associated with executing Glass Dissolution modeling by utilizing prior knowledge from similar activities; reduced scope by concentrating on select glass compositions; and efficiencies associated with initial set-up, calibration for testing, and economy of scale efficiencies from analyzing a large number of samples per day.

- *RPP System Plan*, $0.5M: efficiencies gained through G2 training, Hanford Tank Waste Operations Simulator (HTWOS) model improvements, limited use of overtime, and enabling completion of HTWOS Modeling and System Plan Reporting in parallel.

- *RA- WFE Application Viability*, $0.5M: due to efficiencies from completing the SST consolidation pilot-scale testing, test plans, and procedures in parallel; lower rates for subcontractor work; and less labor than planned.

- *Tank Waste Database Management*, $0.5M: due to the use of fewer and lower cost resources to complete the Tank Waste Information Network System (TWINS) database diagnostic activities.

- *Secondary Waste Treatment/ETF Project Mgmt*, $.05M: resulting from budgeted resources charging to Secondary Waste Treatment/ETF Project Support. Charges will be corrected in November.

- *RA-WFE-Specific Site & Regulatory Interfaces*, $.05M: due to the completion of the Specific Site Interfaces and Requirements report with current staff utilizing prior knowledge eliminating the need for engineering support; lower rates for subcontractor work; revised strategy for only a single identified interfacing system specification; less subcontract work on the Environmental Plan; and less labor than planned.

- *RA- AWA Project Planning and Mobilization*, $0.4M: due to the lack of contract support and hiring delays until scope was established. Work scope is now complete.

- *RA- SY D&D (SHMS-GCS)*, $0.4M: due to efficiencies gained in designing the removal of obsolete equipment that is similar in AW and SY Farms and use of smaller work crew.

Retrieval and Closure SSTs, $10.1M:

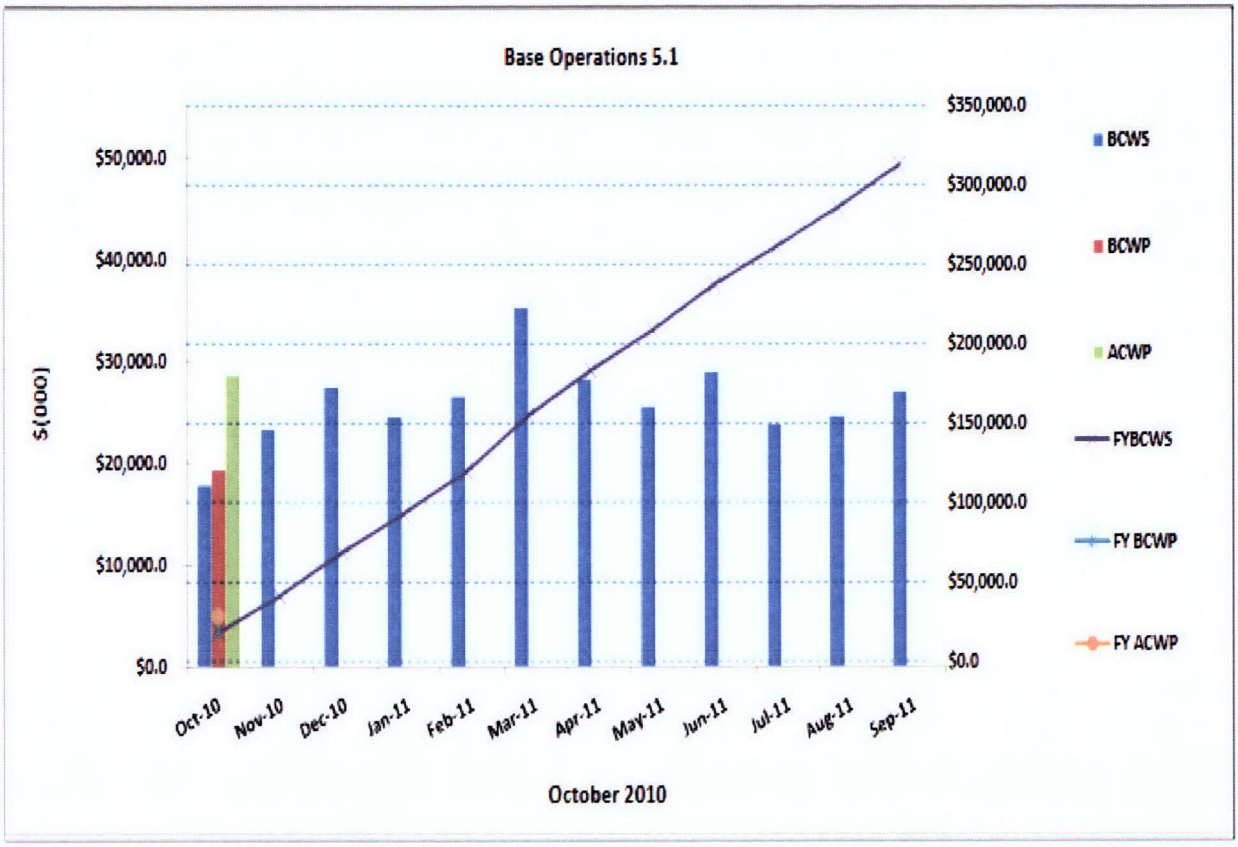
- *Hose in Hose Transfer Line (HIHTL) Disposition (SST)*, $4.2M: due to efficiencies realized in engineering and field by grouping multiple hoses together to work in parallel and several HIHTLs were less contaminated than anticipated, therefore not requiring flushing or high radiation controls.

- *C-Farm Infrastructure DST Receiver Tank 3*, $2.4M: due to efficiencies realized from changing the designation of the receiver tank from AY-101 to AN-106. Current infrastructure setup to AN Farm avoids duplicating efforts to AY Farm which saves resources and reduces the amount of materials and equipment to purchase and install.

- *C-110 Retrieval*, $1.9M: due to efficiencies captured during C-110 waste retrieval operations because of the amount of slurry being greater than model predicted.

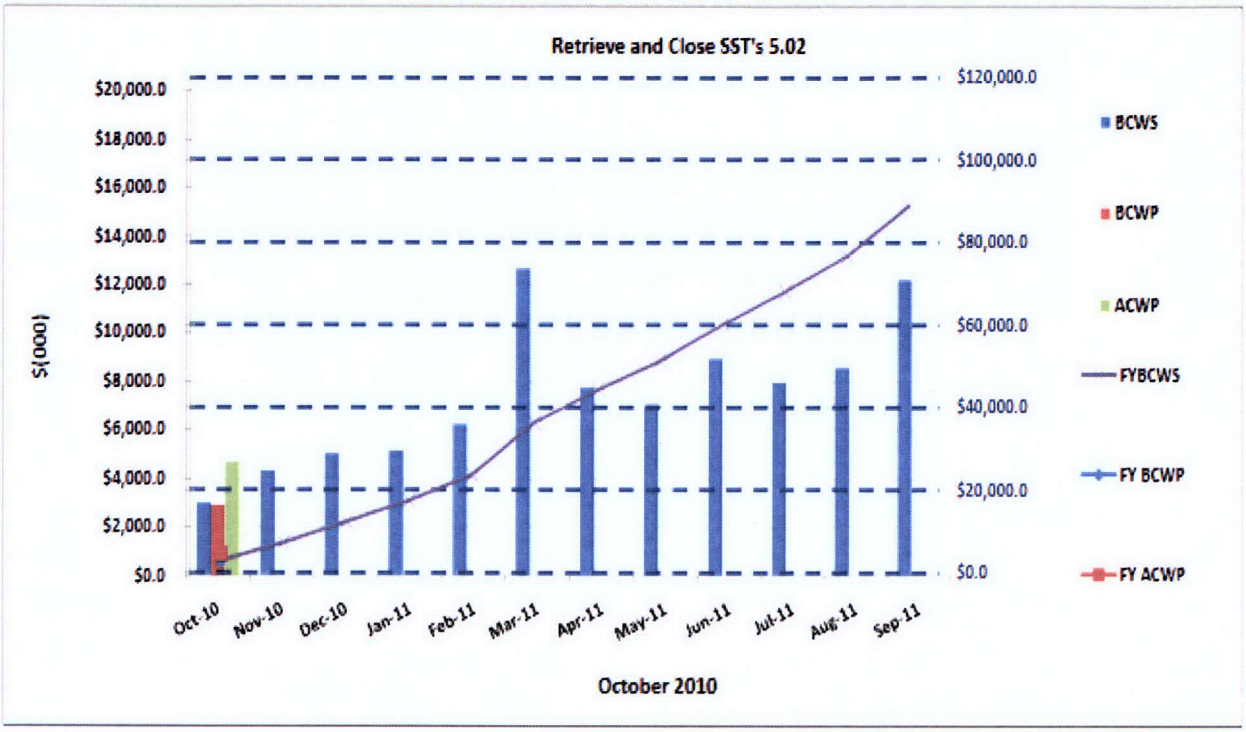
- *Catch Tank & Pipeline Reporting*, $1.8M: due to efficiencies gained by using direct labor rather than subcontract support.

In addition to the above variances, an unfavorable CV was experienced in the *C-104 Retrieval*, ($8.8M): due to increased planning and preparatory work required for completion of 04-A jumper removal, pump removal/disposal, sluicer installation, and additional cost associated with the installation and modifications to the AMS; and in *C-111 Retrieval*, ($4.0Mk): due to restricted access to C Farm, idling construction crews due to vapor issues, additional overtime in preparation of the salt-well pump and screen removal, and additional resources required to work at removing hard crust waste from tank.



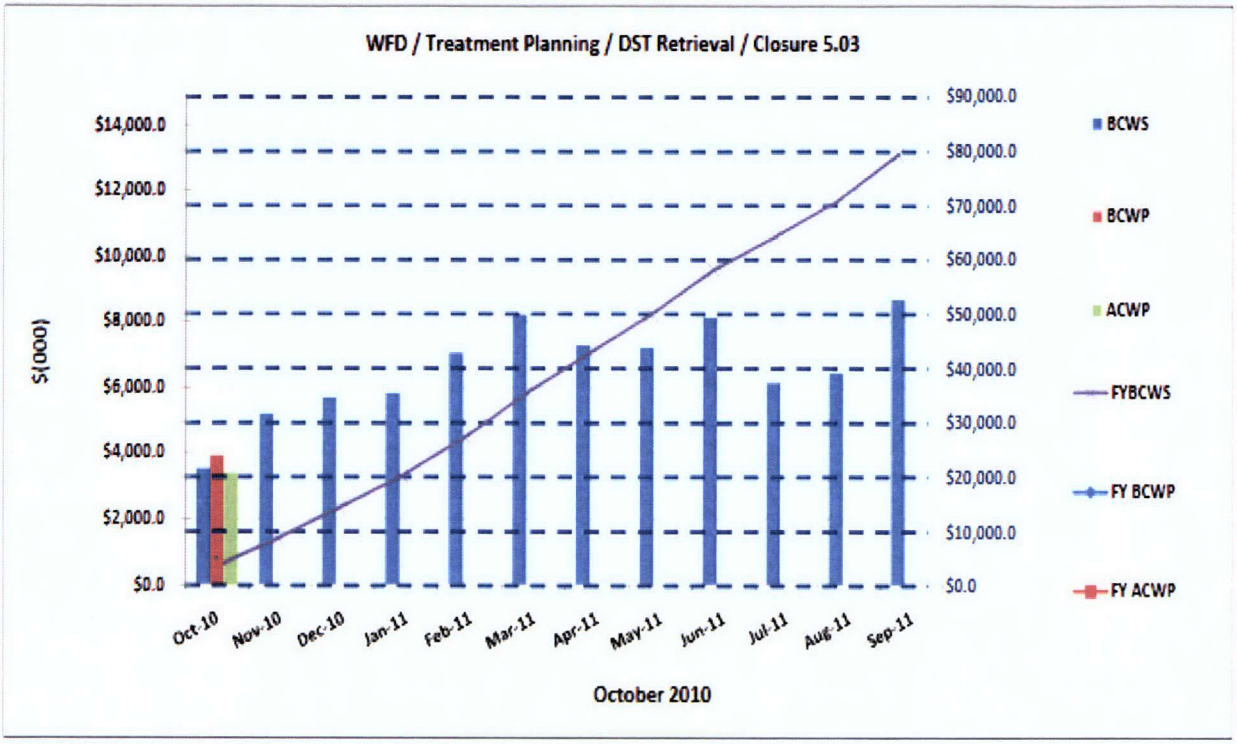
Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FYBCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct-10	$17,777.2	$19,285.1	$28,549.6	1.08	0.68	$17,777.2	$19,285.1	$28,549.6	1.08	0.68
Nov-10	$23,255.1					$41,032.3				
Dec-10	$27,376.3					$68,408.6				
Jan-11	$24,479.9					$92,888.5				
Feb-11	$26,523.4					$119,411.9				
Mar-11	$35,240.1					$154,652.0				
Apr-11	$28,163.9					$182,815.9				
May-11	$25,486.7					$208,302.6				
Jun-11	$28,870.5					$237,173.1				
Jul-11	$23,761.9					$260,935.0				
Aug-11	$24,525.0					$285,460.0				
Sep-11	$26,939.6					$312,399.6				

CTD	$530,761.1	$533,618.5	$512,636.2	1.01	1.04



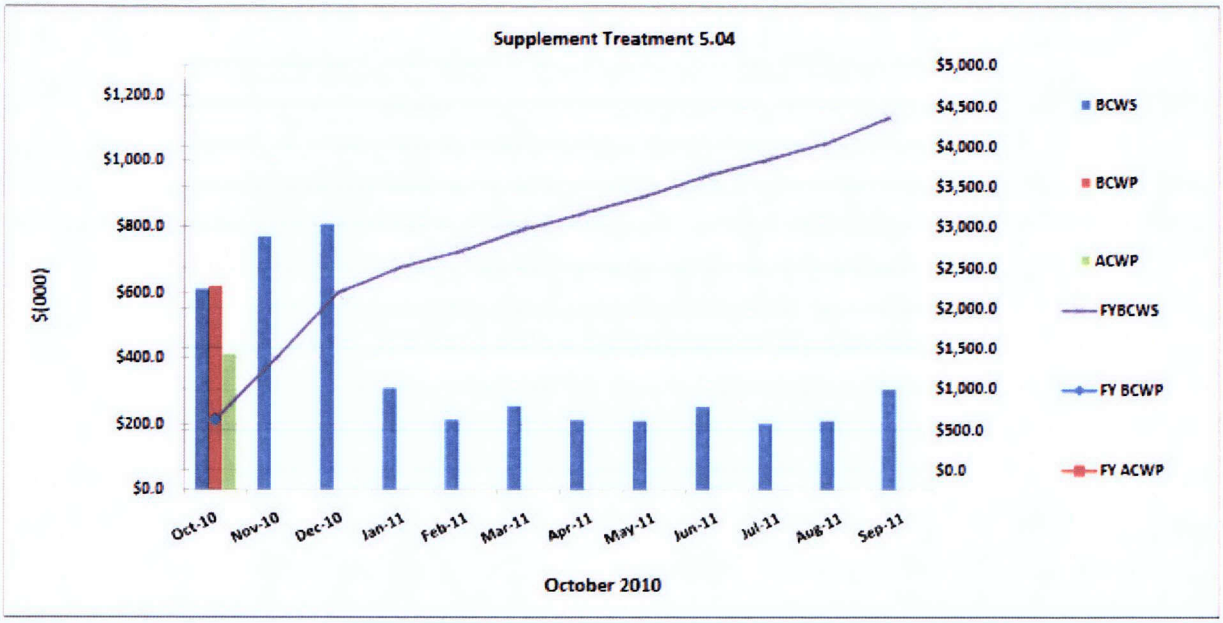
Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FYBCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct-10	$2,991.6	$2,932.6	$4,707.6	0.98	0.62	$2,991.6	$2,932.6	$4,707.6	0.98	0.62
Nov-10	$4,329.5					$7,321.1				
Dec-10	$5,036.7					$12,357.8				
Jan-11	$5,146.6					$17,504.4				
Feb-11	$6,242.8					$23,747.2				
Mar-11	$12,675.9					$36,423.1				
Apr-11	$7,748.4					$44,171.5				
May-11	$7,045.2					$51,216.7				
Jun-11	$8,943.2					$60,159.9				
Jul-11	$7,949.3					$68,109.2				
Aug-11	$8,574.2					$76,683.4				
Sep-11	$12,211.5					$88,894.9				

CTD	$164,261.7	$157,285.9	$147,236.7	0.96	1.07



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					$8,743.6				
Dec-10	$5,684.5					$14,428.1				
Jan-11	$5,829.8					$20,257.9				
Feb-11	$7,062.2					$27,320.1				
Mar-11	$8,225.2					$35,545.3				
Apr-11	$7,280.8					$42,826.1				
May-11	$7,218.5					$50,044.6				
Jun-11	$8,144.8					$58,189.4				
Jul-11	$6,149.5					$64,338.9				
Aug-11	$6,452.7					$70,791.6				
Sep-11	$8,691.2					$79,482.8				

CTD	$86,450.1	$85,599.8	$66,120.0	0.99	1.29



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FYBCWS	FY BCWP	FY ACWP	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					$1,378.6				
Dec-10	$807.0					$2,185.6				
Jan-11	$309.8					$2,495.4				
Feb-11	$212.2					$2,707.6				
Mar-11	$256.1					$2,963.7				
Apr-11	$211.1					$3,174.8				
May-11	$210.5					$3,385.3				
Jun-11	$252.6					$3,637.9				
Jul-11	$200.0					$3,837.9				
Aug-11	$210.5					$4,048.4				
Sep-11	$305.2					$4,353.6				

CTD	$3,501.6	$3,511.5	$3,213.6	1.00	1.09

Fiscal Year 2010 Consent Decree &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
D-00A-18	Complete Structural Steel Erection below Elevation 56' in PT Facility	12/31/09	07/29/09										
D-001-00R-42	Quarterly Report	10/31/09	10/28/09										
D-001-00R-43	Quarterly Report	01/31/10	01/28/10										
D-001-00R-44	Quarterly Report	04/30/10	04/30/10										
D-001-00R-45	Quarterly Report	07/31/10	07/29/10										
*D-00C-01A	Submit to Ecology and Oregon Semi-Annual Report Documenting Progress During Previous 6 Month Period	07/31/10	07/26/10										

* - Submittal pursuant to D-00C-01 series satisfies M-062-01 series reporting.

Fiscal Year 2010 Consent Decree &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-045-56F	Ecology and DOE agree, at a minimum, to meet yearly (by July or as needed to support annual budgeting) for the specific purpose of assessing the adequacy of information, and the need for the establishment of additional agreement interim measures.	07/31/10	06/09/10										
M-045-90	Complete Interim Barrier Demonstration Report for the T-106 Interim Barrier	09/30/10	09/27/10										
M-045-91	Establish a Panel and Report on SST Integrity Assurance Review	09/30/10	09/27/10										
M-045-92A	Establish Selection Criteria for Inst. of Additional Barriers	03/31/10	03/24/10										
M-045-92B	DOE Submit to Ecology a Final Design and Monitoring Plan for TY Farm Interim Barrier	03/31/10	10/22/09										
M-045-92C	Complete Installation of TY Farm Interim Barrier	09/30/10	09/23/10										

Fiscal Year 2010 Consent Decree &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-062-01T	Submit Semi-Annual Project Compliance Report	01/31/10	01/29/10										
*M-062-01U	Submit Semi-Annual Project Compliance Report	07/31/10	07/26/10										

* Submittal pursuant to D-00C-01 series satisfies M-062-01 series reporting.

Fiscal Year 2011 Consent Decree & 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
D-001-00-R46	Quarterly Report	10/31/10	10/28/10										
D-001-00-R47	Quarterly Report	01/31/11		X									
D-001-00-R48	Quarterly Report	04/30/11		X									
D-001-00-R49	Quarterly Report	07/31/11		X									
D-00C-01B	Submit to Ecology and Oregon Semi-Annual Report Documenting Progress During Previous 6 Month Period	01/31/11		X									
D-00C-01C	Submit to Ecology and Oregon Semi-Annual Report Documenting Progress During Previous 6 Month Period	07/31/11											
D-00C-02A	Submit to Ecology and Oregon Monthly Summary Reports	11/30/10	11/18/10										
D-00C-02B	Submit to Ecology and Oregon Monthly Summary Reports	12/31/10		X									
**D-00C-02C	Submit to Ecology and Oregon Monthly Summary Reports	01/31/11		X									

** Future Monthly Reports will be added as necessary to maintain a two-month activity.

Fiscal Year 2011 Consent Decree & 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
D-00A-20	Complete Construction of Structural Steel to Elevation 14' in HLW Facility	12/31/10	01/13/10										
M-036-01A	Submit to EPA & Ecology Lifecycle, Scope, Schedule & Cost for Hanford Site (RL is DOE Lead)	06/25/2011		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									
M-045-15	Interim Completion of Tank S-102 SST Waste Retrieval and Closure Demonstration Project.	06/30/11			X								
M-045-15A	Submit a Retrieval Data Report Pursuant to Agreement Appendix I	06/30/11			X								

Fiscal Year 2011 Consent Decree & 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-045-15B	Remaining Wastes Adequately Characterized; Risk Assessment Completed for Residuals Remaining in the Tank	06/30/11			X								
M-045-15C	Update S-102 Component Closure Activity Plan	06/30/11			X								
M-045-15D	Exception to Waste Retrieval Criteria Pursuant to Agreement Appendix H	06/30/11			X								
M-045-56G	Ecology and DOE Agree to Meet, at a Minimum, Yearly (by July)	07/31/11		X									
M-045-80	Complete those Portions of C-200 Closure Demonstration Plan Necessary to Complete Closure Plan Development for SST System	01/31/11		X									

Fiscal Year 2011 Consent Decree & 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-045-91A	Submit an Agreement Change Package with Interim Milestones to Implement the Panel's Recommendations M-045-91	12/29/10	09/27/10										
M-045-92D	Complete Negotiations to Schedule Remaining 4 Additional Barriers	12/31/10		X									
M-045-92E	Meet Yearly on Performance of Barrier	12/31/10		X									
M-045-100	Submit to Ecology an Agreement Primary Document a Catch Tank "Assumed Leak" Response Plan.	12/27/10		X									
M-045-101	Submit to Ecology as an Agreement Primary Document a Report on all Catch Tanks and Pipelines Used for SST Operations	12/27/10		X									
M-062-01V	Submit Semi-Annual Project Compliance Report	01/31/11		X									
M-062-01V	Submit Semi-Annual Project Compliance Report	07/31/11		X									

Fiscal Year 2011 Consent Decree & 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		X									
M-062-40A	Select a Minimum of 3 scenarios	10/31/10	10/27/10										

Reports

D-00C-02 series, Submit to Ecology & State of Oregon Monthly Summary Report Documenting Progress During Previous Month, Due: End of Each Month, Status: On Schedule

D-00C-01A, Submit to Ecology and Oregon Semi-Annual Report Documenting Progress During Previous 6-Month Period, Due: 1/31/2011, Status: On Schedule

D-006-00-A1, Provide State of Oregon notice of meetings in D-006-00-A, etc. no less than 30 days before they are scheduled, Due: 9/25/2013, Status: On Schedule

D-006-00-A, Meet Approximately Every Three Years After Entry of Decree to review requirements of the Consent Decree, Due: 10/25/2013, Status: On Schedule

Hanford Waste Treatment and Immobilization Plant (WTP) Project

M-062-20, Close all 28 issues in Comprehensive Review of the Hanford Waste Treatment Plant Flowsheet and Throughput Assessment, Due: 12/31/2010, Status: On Schedule

M-062-01U, Submit Semi-Annual Project Compliance Report, Due: 7/31/2010, Status: Complete

M-062-01V, Submit Semi-Annual Project Compliance Report, Due: 1/31/2011, Status: On Schedule

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: On Schedule

D-00A-06, Complete Methods Validations, Due: 12/31/2017, Status: On Schedule

D-00A-17, Hot Start of Waste Treatment Plant, Due: 12/31/2019, Status: On Schedule

D-00A-01, Achieve Initial Plant Ops for WTP, Due: 12/31/2022, Status: On Schedule

There are about 3,237 FTE equivalent contractor [Bechtel National Inc. (BNI)] and subcontractor personnel working on the WTP Project, including 1,071 craft, 520 non-manual, and about 263 subcontractor personnel FTE equivalents working at the WTP construction site (all facilities). Overall project percent complete through September 2010 is 57%, design and engineering is 82% complete, procurement is 59% complete and construction is 54% complete.

The overall WTP Project Schedule Variance (SV) in October was a positive $1.4M, the Cost Variance (CV) was a negative ($5.9M). The negative CV came from the Engineering, Plant Equipment and Construction control accounts. The positive SV came primarily from the Construction and Plant Equipment control accounts.

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

Significant Past Accomplishments:

A WTP Construction Project review was conducted from November 2-4, 2010. The CPR Team provided an overall positive perspective on the WTP project, and provided 18 preliminary recommendations for sustaining the progress noted in previous CPR reviews. A final report from the CPR Team is expected to be released in early January.

Low Order Accumulation Model (LOAM) benchmarking tests associated with mixing for Non-Newtonian vessel configurations are underway, with all six tests scheduled for completion in December. Analysis of the test results will follow immediately after completion of the tests.

The WTP contractor has completed and submitted the Baseline Change Proposal to incorporate the major project technical issues into the project baseline. The BCP (24590-06-05085) was submitted to DOE for review and approval. This BCP will incorporate major technical changes associated with vessel mixing, CXP system design, PT secondary steam loop design, Ashfall hazard mitigation, as well as changes to incorporate sequential Operational Readiness Reviews.

Other November accomplishments include:
Initiated fabrication of the HEPA Filter Housings for the HLW facility
Completed 90% HLW Facility piping design and release two months ahead of schedule
Received and staged both LAW Melters within the facility
Completed Factory Acceptance Testing of the LAW Automatic Sampling System components
Awarded subcontract for emergency diesel generator (EDG) support (BOF)

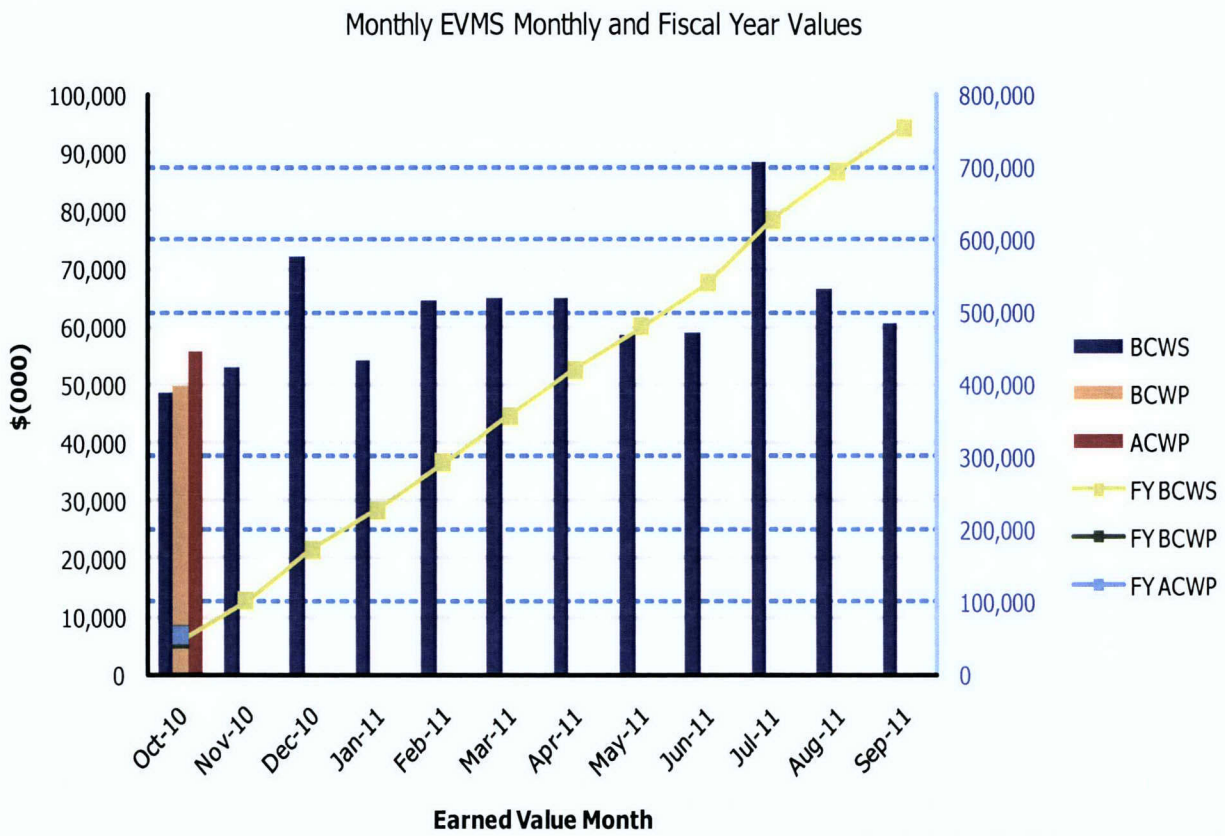
Significant Planned Actions in the Next Six Months:

There will be a mini Construction Project Review in March 2011
A full Construction Project Review is scheduled for May 2011
Complete fabrication of UFP-1A and UFP-1B vessels in the PT
Complete installation of hot cell crane rails in the PT
Begin installation of duct, pipe, and support steel in the Filter Cave in the HLW
Receive Canister Decontamination Vessels in the HLW
Receive LAW autosampling (ASX) equipment
Begin installation of LAB autosampling (ASX) equipment
Award Emergency Diesel Generator (EDG) procurement

Issues:
No significant issues at this time.

WTP – Fiscal Year To-Date Performance

River Protection
01-D-416 - Waste Treatment Plant (WTP) Project



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2010	$48,550	$49,962	$55,880	1.03	0.89	$48,550	$49,962	$55,880	1.03	0.89
Nov 2010	$53,135					$101,685				
Dec 2010	$71,962					$173,647				
Jan 2011	$54,259					$227,906				
Feb 2011	$64,495					$292,402				
Mar 2011	$64,996					$357,398				
Apr 2011	$64,783					$422,181				
May 2011	$58,696					$480,877				
Jun 2011	$59,092					$539,969				
Jul 2011	$88,480					$628,449				
Aug 2011	$66,582					$695,030				
Sep 2011	$60,343					$755,374				
PTD	$5,775,899	$5,785,510	$5,813,909	1.00	1.00					

Pretreatment (PT) Facility

D-00A-18, Complete Structural Steel Erection Below 56' in PT Facility, Due: 12/31/2009,
Status: Complete (7/23/2009)

D-00A-19, Complete Elevation 98' Concrete Floor Slab in PT Facility, Due: 12/31/2014,
Status: On Schedule

D-00A-13, Complete Installation of Pretreatment Feed Separation Vessels, Due: 12/31/2015,
Status: On Schedule

D-00A-14, PT Facility Construction Substantially Complete, Due: 12/31/2017,
Status: On Schedule

D-00A-15, Start PT Facility Cold Commissioning, Due: 12/31/2018,
Status: On Schedule

D-00A-16, PT Facility Hot Commissioning Complete, Due: 12/31/2019,
Status: On Schedule

Significant Past Accomplishments:

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. Overall facility percent complete is 47.5%, engineering/design is 82% complete, procurement is 45% complete and construction is 34% complete.

Overall construction continues to perform well. Construction completions for the month of November include: placement of one slab (7735) and a partial placement of a second slab (7744) at the 77-ft elevation, placement of one concrete wall (5-30) from the 77-ft to 98-ft elevation, and completion of thermite welding of the north hot cell crane rail.

Rebar and embed installation and fabrication of rebar wall curtains continues to support additional slab and wall placements at the 77-ft and 98-ft elevation. Installation of piping, cable trays and supports, and lateral braces for the hotcell crane rail girders continues.

Engineering continues to implement the changes from the technical issue resolutions in the P&ID drawings and other documents. Baseline Change Proposals (BCP) incorporating these changes is forecasted to be implemented in December after the DOE review is complete. Three hundred and nine (309) piping isometric drawings were issued for construction. A Material Requisition (MR) was issued to purchase the Chilled Water Pumps, and a contract was awarded for the Vacuum Breakers. Construction drawings for the remaining 5th lift walls (77-ft – 98-ft elevation, column lines 17-26) have been issued.

BNI has already met the Calendar Year 2010 goal of awarding 35 purchase orders, and anticipates to exceed it by 5-7 purchase orders. BNI has completed the fee milestone for the design of racks at the 56-ft and 77-ft elevations. DOE is reviewing the milestone completion documentation for approval in December 2010.

Significant Planned Actions in the Next Six Months:

- Complete Low Order Accumulation Model (LOAM) validation testing for the non-Newtonian vessel configuration
- Complete planning for the Large Scale testing for the validation of vessel mixing Scale-up
- Issue the revised P&ID's and Calculations for the Pretreatment Vessel Vent Process (PVP) system
- Complete the coupled dynamic analysis for the Waste Feed (FEP) and Treated Law (TLP) evaporators
- Complete fabrication of 2 major Jumper frames
- Complete installation of hot cell crane rails
- Install the 30-ton hot cell crane
- Install 2 hot cell shield doors
- Complete placement of 5 slabs and 19 walls, totaling about ~2,800 CY
- Erection of 4th tier structural steel (77-ft to 98-ft elevation) as 5th lift concrete walls are completed.

Issues:

Design and fabrication of vessel HLP-22, is the critical path for PT. Re-analysis and design modifications necessary to mitigate increased stress levels of vessels due to seismic and other dynamic load increases continue. BNI continues to address the need for additional analytical resources. Efforts are also ongoing for the analysis of the on-site vessels in order to support the vessel alteration sequence. Design and analysis has been completed for vessel UFP-62C, and the draft permit package has been provided to the Department of Ecology for review. Schedules for the vessel modifications and permit needs have been provided to Ecology for their resource planning.

Benchmark testing the LOAM for application to the 5 non-Newtonian vessels is ongoing. Currently, four of the six scheduled tests are complete and the overall test should conclude by the end of December 2010.

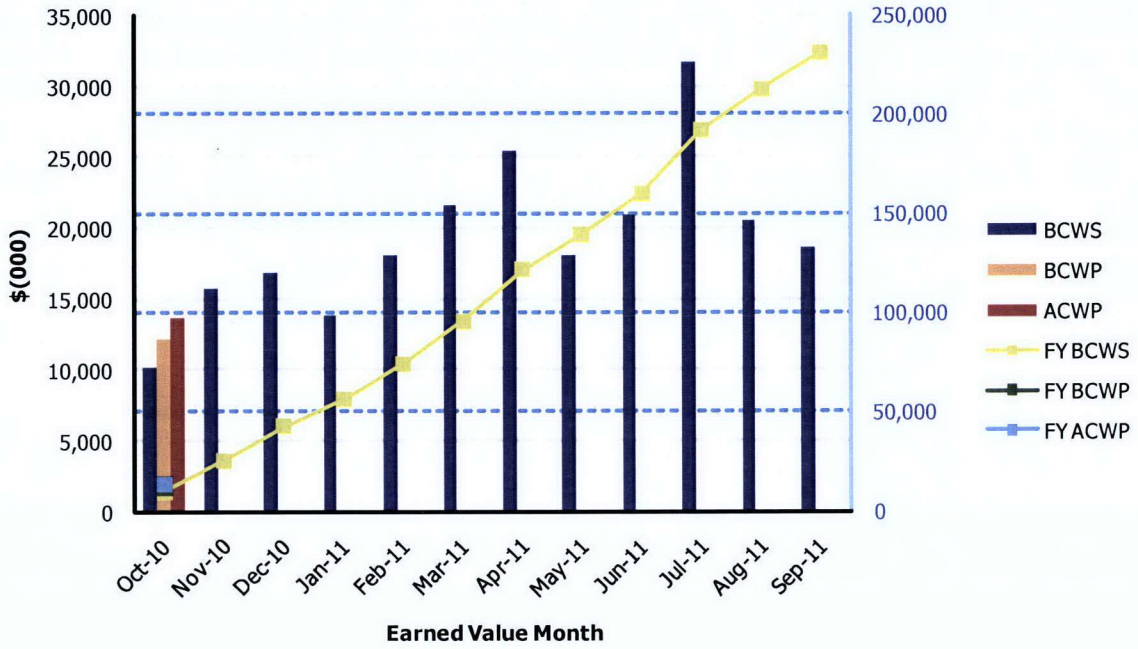
Resolution of the major technical issues was originally included in Forecast Update 4 of which DOE reviewed in October. BNI has rolled the technical issues into a BCP which is planned to be implemented into the project baseline in December. DOE is currently reviewing this BCP to ensure alignment with the Forecast Update including incorporation of comments generated as a result of the Forecast Update review.

Data Set: FY 2010 Earned Value Data

Data as of: Oct 2010
Report Number: **EXC-01a**

River Protection
01-D-16E - Pretreatment Facility

Facility Specific (unallocated) Monthly and Fiscal-Year-to-Date (FY-TD) EVMS Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2010	$10,196	$12,179	$13,730	1.19	0.89	$10,196	$12,179	$13,730	1.19	0.89
Nov 2010	$15,745					$25,941				
Dec 2010	$16,766					$42,706				
Jan 2011	$13,871					$56,578				
Feb 2011	$18,023					$74,601				
Mar 2011	$21,614					$96,214				
Apr 2011	$25,435					$121,649				
May 2011	$17,988					$139,637				
Jun 2011	$20,895					$160,532				
Jul 2011	$31,672					$192,204				
Aug 2011	$20,486					$212,690				
Sep 2011	$18,585					$231,275				
PTD	$1,066,100	$1,077,218	$1,047,210	1.01	1.03					

High-Level Waste (HLW) Facility

D-00A-20, Complete Construction of Structural Steel to 14' in HLW Facility, Due: 12/31/2010, Status: Complete

D-00A-21, Complete Construction of Structural Steel to 37' in HLW Facility, Due: 12/31/2012, Status: On Schedule

The 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 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 50% complete overall, with engineering design 87% complete, procurement 60% complete, and construction 31% complete.

Significant Past Accomplishments:

In the November period, engineering achieved the gatepost milestone – Completion of 90% HLW Facility Piping Design and Release two months ahead of schedule. A total of 150,000 of the 166,000 lineal-feet of piping have been released to the vendor for fabrication. The last major system yet to be finalized is the HLW Melter Offgas Treatment Process (HOP) piping design which accounts for the remaining 10% of piping design. This will be completed in the summer of 2011 in order to incorporate vendor data for the multiple pieces of offgas treatment equipment.

Significant Planned Actions in the Next Six Months:

- Complete fabrication of HOP support steel and deck plating for filter housings (12/2010)
- Commence installation of duct, pipe, and support steel in the Filter Cave (01/2011)
- Complete Civil, Structural, and Architectural Title II Design Contract Milestone (02/2011)
- Receive initial delivery of C5V HEPA Filter Housings (02/2011-03/2011)
- Commence roofing of Annex (03/2011)
- Receive Canister Decontamination Vessels (04/2011)
- Set RWH-DOOR-20 (05/2011)
- Complete fabrication of C5V dampers (05/2011-07/2011)

Issues:

The build-out of the Filter Cave is on the critical path schedule for the HLW Facility. The complicated installation of the support steel, housings, dampers, large diameter ducting, and piping requires precise coordination. WTP construction craft and the ventilation subcontractor have developed a detailed (Level-5) schedule that provides the installation sequencing for each pipe spool and each piece of support steel.

The procurement and fabrication of vessels is also receiving management focus and priority. Procurements that have been on-hold are being revised to incorporate the revised ground motion studies and more formalized quality requirements. Vessel status is reported weekly to ensure completion and delivery prior to the scheduled installation dates.

Data Set: FY 2010 Earned Value Data

Data as of: Oct 2010
Report Number: **EXC-01a**

River Protection
01-D-16D - High-Level Waste Facility

Facility Specific (unallocated) Monthly and Fiscal-Year-to-Date (FY-TD) EVMS Values

Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2010	$7,653	$8,413	$8,615	1.10	0.98	$7,653	$8,413	$8,615	1.10	0.98
Nov 2010	$10,252					$17,905				
Dec 2010	$18,028					$35,933				
Jan 2011	$11,294					$47,227				
Feb 2011	$16,291					$63,518				
Mar 2011	$14,924					$78,442				
Apr 2011	$11,756					$90,198				
May 2011	$12,848					$103,046				
Jun 2011	$12,220					$115,266				
Jul 2011	$12,471					$127,737				
Aug 2011	$13,392					$141,128				
Sep 2011	$15,817					$156,945				
PTD	$702,073	$707,638	$697,741	1.01	1.01					

Low-Activity Waste (LAW) Facility

D-00A-07, LAW Facility Construction Substantially Complete, Due: 12/31/2014, Status: On Schedule

D-00A-08, Start LAW Facility Cold Commissioning, Due: 12/31/2018, Status: On Schedule

D-00A-09, LAW Facility Hot Commissioning Complete, Due: 12/31/2019, Status: On Schedule

Significant Past Accomplishments:

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 66%, engineering is 93%, procurement is 80%, and construction is 65%.

Engineering

Engineering issued confirmed calculations for the *125V DC Battery Sizing for Low Activity Waste Facility 13.8 kV Switchgear* and the *LAW Relief Valve Sizing for CHW*. Engineering also issued ventilation and instrumentation diagrams (V&IDs) for the LAW secondary offgas/vessel vent process (LVP) system and control logic diagrams for the non-dangerous/non-radioactive liquid effluent (NLD) and chilled water (CHW) systems. The floor plan layout for elevation +48' of the LAW facility was issued.

Procurement

The two, LAW melters were delivered in November. Factory Acceptance Testing of the two, LAW autosamplers was completed in November. Delivery of the autosamplers is planned for December. Other procurement activities included the issuance of engineering specifications for the multi-stage, high-integrity centrifugal blowers as well as material requisitions for the purchase of "Q" vacuum breakers and pilot tubes.

Construction

During November, BNI completed installation of the freight elevator. Construction continued to install cooling panels, the CO_2 pelletizers, the fire alarm system, and the transfer corridor bogie rails. Other normal activities continued such as installation of piping and hangers, cable tray, conduit and wiring, instrument enclosures, lighting fixtures, partition wall framing and gypsum wallboard, and perimeter sealants.

Commissioning

BNI performed integrated control network software testing for the following LAW systems: non-dangerous/non-radioactive liquid effluent, demineralized water, domestic water, chilled water, and breathing service air.

Significant Planned Actions in the Next Six Months:

- Receive LAW autosampling (ASX) equipment
- Move LAW melters into temporary storage at the site
- Complete installation of LAW personnel elevator

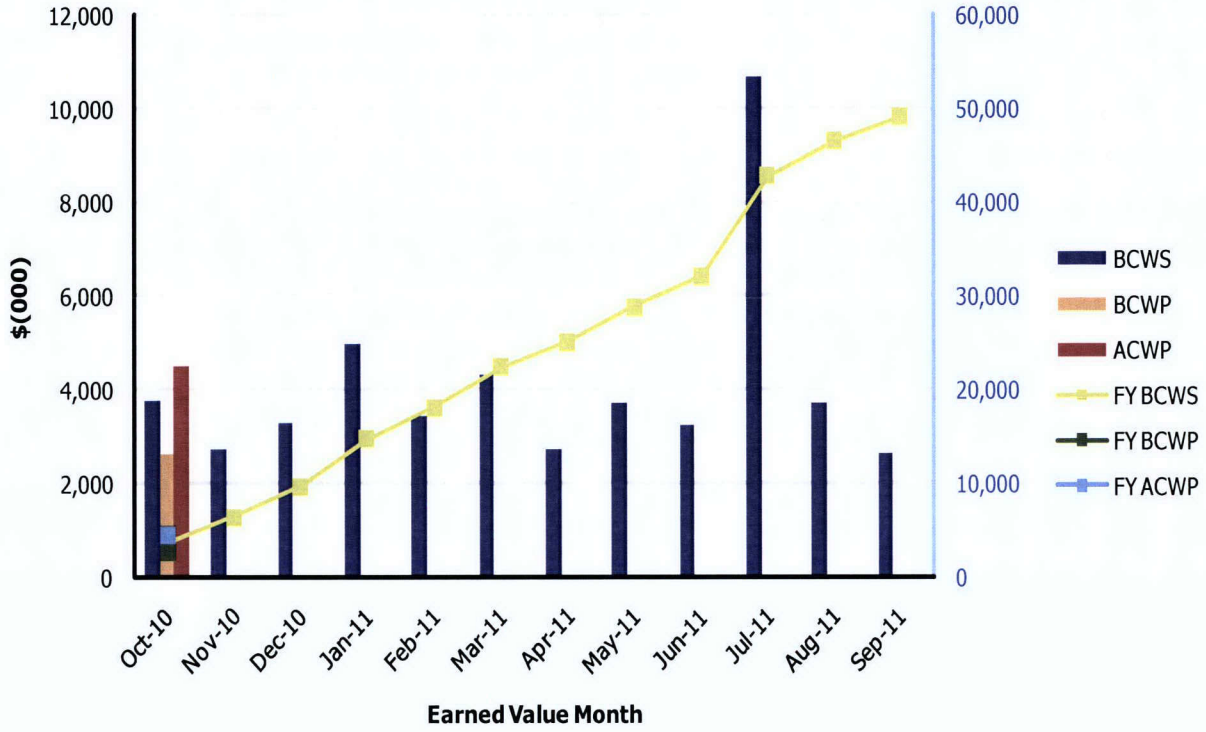
Issues:
No major issues.

Data Set: FY 2010 Earned Value Data

Data as of: Oct 2010
Report Number: **EXC-01a**

River Protection
01-D-16A - Low-Activity Waste Facility

Facility Specific (unallocated) Monthly and Fiscal-Year-to-Date (FY-TD) EVMS Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2010	$3,743	$2,654	$4,511	0.71	0.59	$3,743	$2,654	$4,511	0.71	0.59
Nov 2010	$2,715					$6,458				
Dec 2010	$3,281					$9,739				
Jan 2011	$4,947					$14,686				
Feb 2011	$3,440					$18,126				
Mar 2011	$4,325					$22,452				
Apr 2011	$2,725					$25,176				
May 2011	$3,698					$28,874				
Jun 2011	$3,260					$32,134				
Jul 2011	$10,689					$42,823				
Aug 2011	$3,690					$46,513				
Sep 2011	$2,610					$49,123				
PTD	$592,214	$583,593	$627,608	0.99	0.93					

Analytical Laboratory

D-00A-05, LAB Construction Substantially Complete, Due: 12/31/2012, Status: On Schedule

Significant Past Accomplishments:

The LAB will support WTP operations by analyzing feed, vitrified waste, and effluent streams. Overall facility complete for LAB is 46%, engineering is 82%, procurement is 72%, and construction is 68%.

Engineering

In November BNI engineering issued control logic diagrams for the C1V and C5V ventilation systems to support control software development. In addition, engineering completed controls and instrumentation (C&I) software development for the C3V ventilation, the C5V ventilation, domestic (potable) water (DOW) systems.

Procurement

No significant activity in November.

Construction

Development began on the layout for the autosampling equipment shielding assembly. Construction activities continued in the LAB including piping installation in the C2, C3, and C5 drainage pits, electrical raceway, piping and hangers for water and steam condensate systems, conduit, lighting, and electrical equipment.

Commissioning

Integrated control network software testing was completed for the LAB C3V ventilation, plant service air (PSA), breathing service air (BSA), and process vacuum air (PVA) systems.

Significant Planned Actions in the Next Six Months:

- Install LAB waste drum bogie shield door
- Begin installation of LAB autosampling equipment
- Complete LAB C5 ventilation filter room ceiling design

Issues:

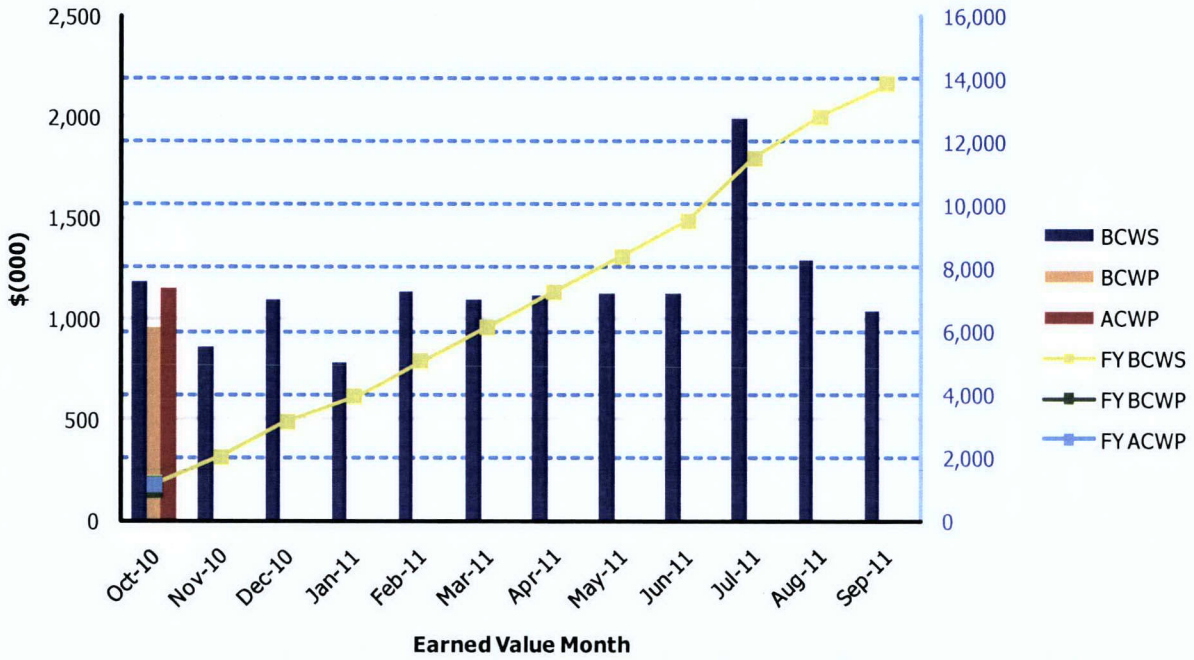
No major issues.

Data Set: FY 2010 Earned Value Data

Data as of: Oct 2010
Report Number: **EXC-01a**

River Protection
01-D-16B - Analytical Laboratory

Facility Specific (unallocated) Monthly and Fiscal-Year-to-Date (FY-TD) EVMS Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2010	$1,180	$954	$1,152	0.81	0.83	$1,180	$954	$1,152	0.81	0.83
Nov 2010	$863					$2,043				
Dec 2010	$1,098					$3,141				
Jan 2011	$783					$3,924				
Feb 2011	$1,137					$5,061				
Mar 2011	$1,096					$6,158				
Apr 2011	$1,116					$7,274				
May 2011	$1,128					$8,401				
Jun 2011	$1,125					$9,526				
Jul 2011	$1,986					$11,512				
Aug 2011	$1,289					$12,800				
Sep 2011	$1,038					$13,838				
PTD	$154,395	$153,342	$165,830	0.99	0.92					

Balance of Facilities (BOF)

D-00A-12, Steam Plant Construction Complete, Due: 12/31/2012, Status: On Schedule

Significant Past Accomplishments:

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 46%, engineering is 83%, procurement is 44%, and construction is 60%.

Engineering

Engineering issued a confirmed calculation *Design Pressure and Design Temperature Calculation for AMR [Ammonia Reagent] System.* Control logic diagrams were issued for the Ammonia Reagent (AMR) system.

Procurement

The major focus has been on procurement of the Emergency Diesel Generators (EDGs). The proposal for this equipment continues under review and analysis prior to awarding a contract. Interactions of BNI Engineering with the ammonia system vaporizer skid vendor continued to ensure approval of the design calculations for this equipment. The CO_2 vessel factory acceptance testing has been completed and shipment of the vessel is expected in December.

Construction

BNI construction completed placement of the controlled density fill (CDF) over the plant service air (PSA) and non-dangerous/non-radioactive liquid effluent (NLD) system piping at the anhydrous ammonia storage facility (AASF) as well as over the electrical triad at the BOF switchgear building. Pressure testing of the PSA and NLD piping at the AASF was also completed. Additional work at the anhydrous ammonia storage facility (AASF) included excavation for and installation of electrical duct bank, electrical manhole, and piping commodities. BNI is continuing work on multiple construction activities in the Chiller Compressor Plant (CCP), Glass Former Storage Facility (GFSF), and the non-dangerous/non-radioactive effluent (NLD) facility.

Commissioning

Integrated control network software testing was performed for the ammonia reagent system (AMR) at the anhydrous ammonia storage facility (AASF).

Significant Planned Actions in the Next Six Months:

- Award EDG procurement
- Complete concrete placements for BOF Ammonia Facility
- Receive BOF ammonia vaporizer skid

Issues:

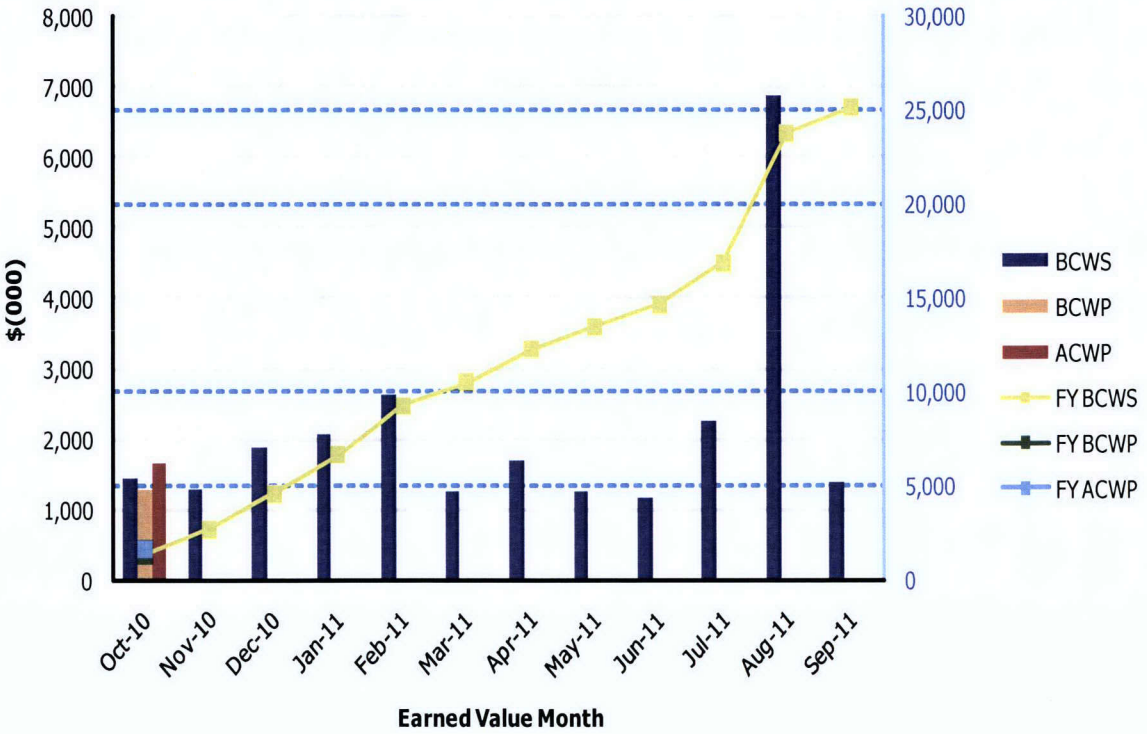
No major issues.

Data Set: FY 2010 Earned Value Data

Data as of: Oct 2010
Report Number: **EXC-01a**

River Protection
01-D-16C - Balance of Facilities

Facility Specific (unallocated) Monthly and Fiscal-Year-to-Date (FY-TD) EVMS Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2010	$1,428	$1,272	$1,660	0.89	0.77	$1,428	$1,272	$1,660	0.89	0.77
Nov 2010	$1,303					$2,731				
Dec 2010	$1,889					$4,620				
Jan 2011	$2,058					$6,678				
Feb 2011	$2,634					$9,312				
Mar 2011	$1,243					$10,555				
Apr 2011	$1,698					$12,254				
May 2011	$1,264					$13,518				
Jun 2011	$1,168					$14,686				
Jul 2011	$2,239					$16,925				
Aug 2011	$6,854					$23,779				
Sep 2011	$1,384					$25,162				
PTD	$236,621	$235,639	$233,574	1.00	1.01					

Waste Treatment Plant Project - Percent Complete Status

Through October 2010

(Dollars - Millions)	Overall Facility Percent Complete Unallocated Dollars			Design/Engineering Unallocated Dollars			Procurement Unallocated Dollars			Construction Unallocated Dollars		
Facilities	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	893.6	583.6	65%	212.0	195.6	92%	234.1	185.5	79%	306.7	196.6	64%
Analytical Lab	337.9	153.3	45%	50.3	41.2	82%	56.9	41.1	72%	88.7	59.9	68%
Balance of Facilities	510.5	235.6	46%	70.2	25.3	36%	83.7	36.9	44%	222.1	132.9	60%
High-Level Waste	1,409.0	707.6	50%	322.3	279.8	87%	439.6	262.5	60%	522.3	161.6	31%
Pretreatment	2,270.9	1,077.2	47%	607.8	498.3	82%	643.6	290.5	45%	836.5	283.4	34%
Shared Services	4,687.9	3,028.1	65%	1,037.6	843.9	81%	462.5	320.8	69%	1,363.4	959.0	70%
Total WTP w/o UB	10,109.8	5,785.5	57%	2,300.3	1,884.1	82%	1,920.5	1,137.2	59%	3,339.8	1,793.4	54%
Undistributed Budget	70.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total WTP	10,180.2	5,785.5	57%	2,300.3	1,884.1	82%	1,920.5	1,137.2	59%	3,339.8	1,793.4	54%

Source: WTP Contract Performance Report

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.