

Office of River Protection

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Tri-Party Agreement  
Managers Milestone Review Meeting  
June 23, 2009

**Office of River Protection**

U.S. Department of Energy  
U.S. Environmental Protection Agency  
Washington State Department of Ecology

May 2009

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## Agenda

Office of River Protection  
 Tri-Party Agreement  
 Managers Milestone Review Meeting  
 2440 Stevens Center, Conference Room 120  
 June 23, 2009  
 9:00 a.m. – 11:30 a.m.

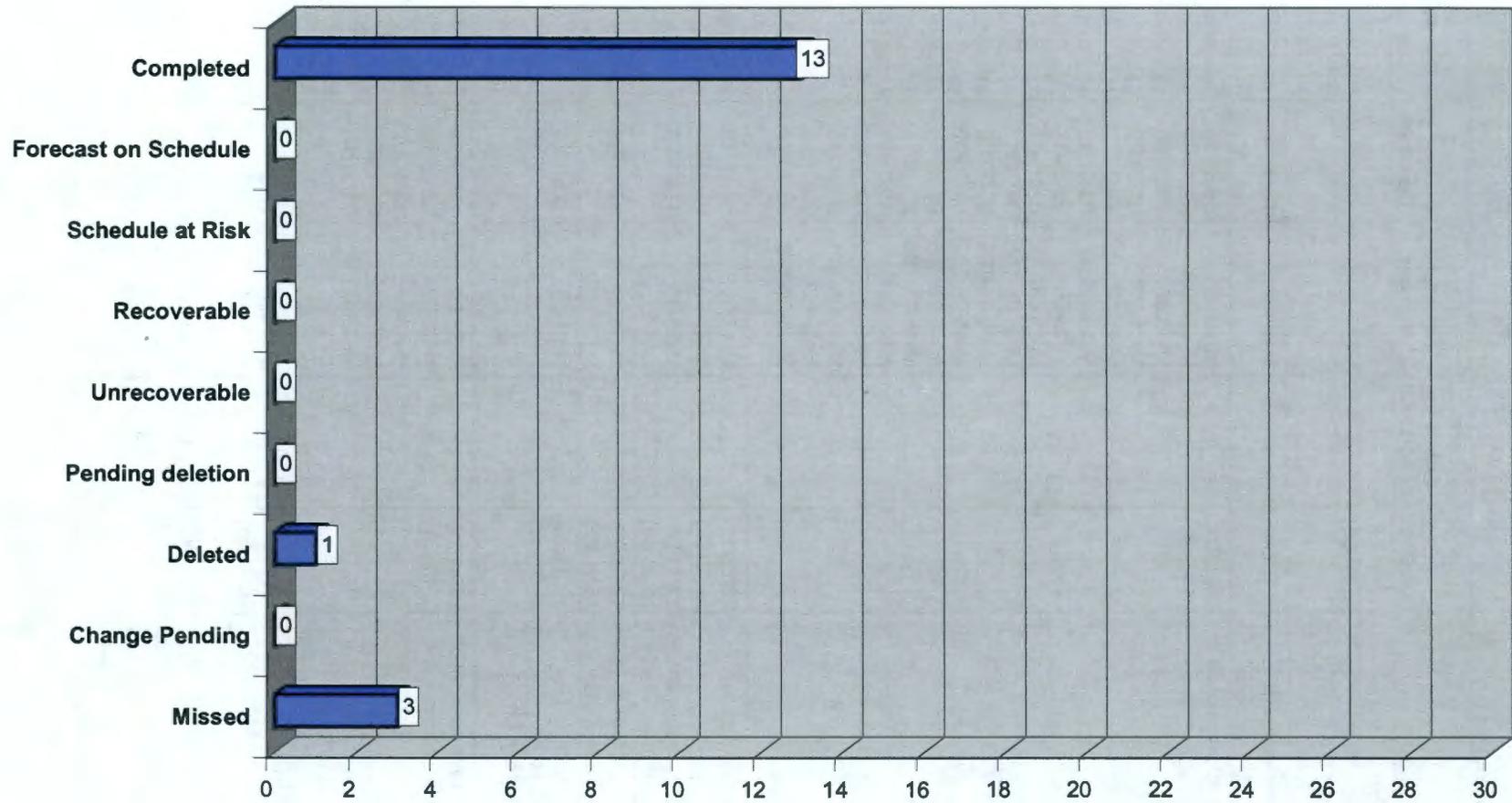
Page	Topic	Leads	Time
43	M-45, -50, -60 Single-Shell Tank Corrective Action	Bob Lober /Joe Caggiano	8:30
45	M-45-00, Complete Closure of All Single-Shell Tank Farms	Chris Kemp /Jeff Lyon	8:40
55	Interim Stabilization Consent Decree	John Long /Nancy Uziemblo	8:55
56	In Tank Characterization and Summary	John Long /Michael Barnes	9:05
58	M-47-00, Tank Waste Treatment, Storage and Disposal Facilities	Ben Harp /Les Fort	9:10
60	M-90-00, Complete Acquisition of Facilities for Interim Storage of IHLW and Storage/Disposal of ILAW and M-20, Part B Permits	Ben Harp /Bud Derrick	9:15
61	M-62-08, M-62-11 Bulk Vitrification/ Supplemental Technologies M-62-00, Complete Pretreatment Processing and Vitrification of Tank Wastes	Ben Harp /Ed Fredenburg	9:20
	<b>BREAK</b>		
3	TPA Milestone Statistics	Woody Russell Ed Fredenburg /Jeff Lyon	9:25
21	FY 2009 ORP TPA Cost & Schedule Performance (CHG)	Janet Diediker Ed Fredenburg /Jeff Lyon	9:30
63	BNI Cost & Schedule Performance for Immobilization Plant (WTP) Project	Pete Furlong /Wahed Abdul Gary Olsen/ Jeff Trent /Ed Fredenburg	9:35

## TPA Milestone Statistics

(Including target milestones)

Milestone	Due Date	Total Active as of 02/21/08	Milestone Number	Due Date	Milestone Number	Due Date
<b>M-20-00</b> , Submit Part B Permit Application on Closure/Post Closure Plans for all RCRA TSD Units	12/31/08 (M-20-00)	0				
<b>M-42-00</b> , Provide Additional DST Capacity	TBD	1	M-42-00	TBD		
<b>M-45-00</b> , Complete Closure of all SST Farms	09/30/24 (M-45-00)	35	M-45-00 M-45-00B M-45-00C M-45-00D M-45-02 M-45-02O M-45-05 M-45-05A M-45-05-T05 M-45-05-T06 M-45-05-T07 M-45-05-T08 M-45-05-T09 M-45-02P M-45-05-T10 M-45-05-T11 M-45-02Q M-45-05-T12	09/30/24 09/30/06 09/30/06 01/31/08 TBD 03/01/10 09/30/18 03/31/07 09/30/07 09/30/08 09/30/09 09/30/10 09/30/11 03/01/12 09/30/12 09/30/13 03/01/14 09/30/14	M-45-05-T13 M-45-02R M-45-05-T14 M-45-05-T15 M45-02S M-45-06 M-45-06-T03 M-45-06-T04 M-45-13 M-45-15 M-45-56 M-45-59 M-45-61 M-45-62	09/30/15 03/01/16 09/30/16 09/30/17 03/01/18 09/30/24 03/31/12 03/31/14 06/30/11 06/30/11 TBD TBD 12/31/10 07/31/12
<b>M-47-00</b> , Complete All Work for Phase 1 Operations	02/28/18 (M-47-00)	3	M-47-00 M-47-03A	02/28/18 03/31/09	M-47-06	06/30/10
<b>M-50-00</b> , Complete Pretreatment Processing of Hanford Tank Waste	12/31/28 (M-50-00)	1	M-50-00	12/31/28		
<b>M-51-00</b> , Complete Vitrification of Hanford High Level Tank Waste	12/31/28 (M-51-00)	1	M-51-00	12/31/28		
<b>M-61-00*</b> (alternate path), Complete Pretreatment & Immobilization of Hanford Low Activity Tank Waste	12/31/28 (M-61-00)	1	M-61-00	12/31/28		
<b>M-62-00</b> , Complete Pretreatment Processing and Vitrification of Tank Wastes	12/31/28 (M-62-00)	13	M-62-00 M-62-00A M-62-07B M-62-01S M-62-01T	12/31/28 02/28/18 12/31/07 07/31/09 01/31/10	M-62-08 M-62-09 M-62-01U M-62-01V M-62-10 M-62-01W M-62-11	06/30/06 02/28/09 07/31/10 01/31/11 01/31/11 07/31/11 06/30/07
<b>M-90-00</b> , Interim Storage and Disposal of LAW and Interim Storage of HLW	TBD (M-90-00)	2	M-90-00 M-90-11	TBD 08/31/10		
<b>Interim Stabilization Consent Decree</b>	09/30/04 (D-001-00)	1	D-001-00			
<b>Total Active Milestones:</b>		<b>59</b>				

### FY 2006 MILESTONE PERFORMANCE



### Fiscal Year 2006 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Unrecoverable	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
D-001-00-R26	DOE shall, on a quarterly basis, submit to Ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	10/31/05	10/31/05								
M-048-07A-A	Complete construction of the AZ-301 condensate return system and remove the AZ-151 catch tank system from service by October 31, 2005. This scheduled deliverable is a subset of M-48-07A, and thus labeled as M-48-07A-A.	10/31/05	10/24/05								
M-046-21	Complete Implementation Of Double Shell Tank Space Optimization Study Recommendations (Tank Space Options Report Document No. RPP-7702, April 12, 2001).	12/31/05	12/15/05								
M-062-01L	Submit Semi-Annual Project Compliance Report.	01/31/06	01/31/06								
M-045-02M	Submit biennial update to SST retrieval sequence document (agreement Appendix I. Section 2.1.2), double-shell tank space evaluation document and Ecology concurrence of additional tank acquisition.	3/1/06	3/13/06								

## Fiscal Year 2006 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Unrecoverable	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
M-048-07A-B	Completion of construction for the 241-AP-106A central pump pit upgrade (remove existing equipment, evaluate pit integrity, and replace pit coating, if necessary). This scheduled deliverable is a subset of M-48-07A, and thus labeled as M-48-07A-B.	3/31/06	3/30/06								
M-048-14	Submit Written Integrity Report For The Double-Shell Tank System.	3/31/06	3/31/06								
M-047-05A	Complete startup and turnover activities for waste retrieval and mobilization systems for selected initial low-activity waste feed tank (other than AZ-101 or AZ-102).	4/30/06	12/29/04								
M-45-55-T04	Submit to Ecology for review and comment a draft Field Investigation Report combining the results of field investigations and analysis for WMAs A-AX, C and U. As part of the Phase 2 Vadose Zone project renegotiations being developed, this target milestone scope has been included in M-45-55 Phase 1 rollup documentation due in 1/08.	4/30/06								X	

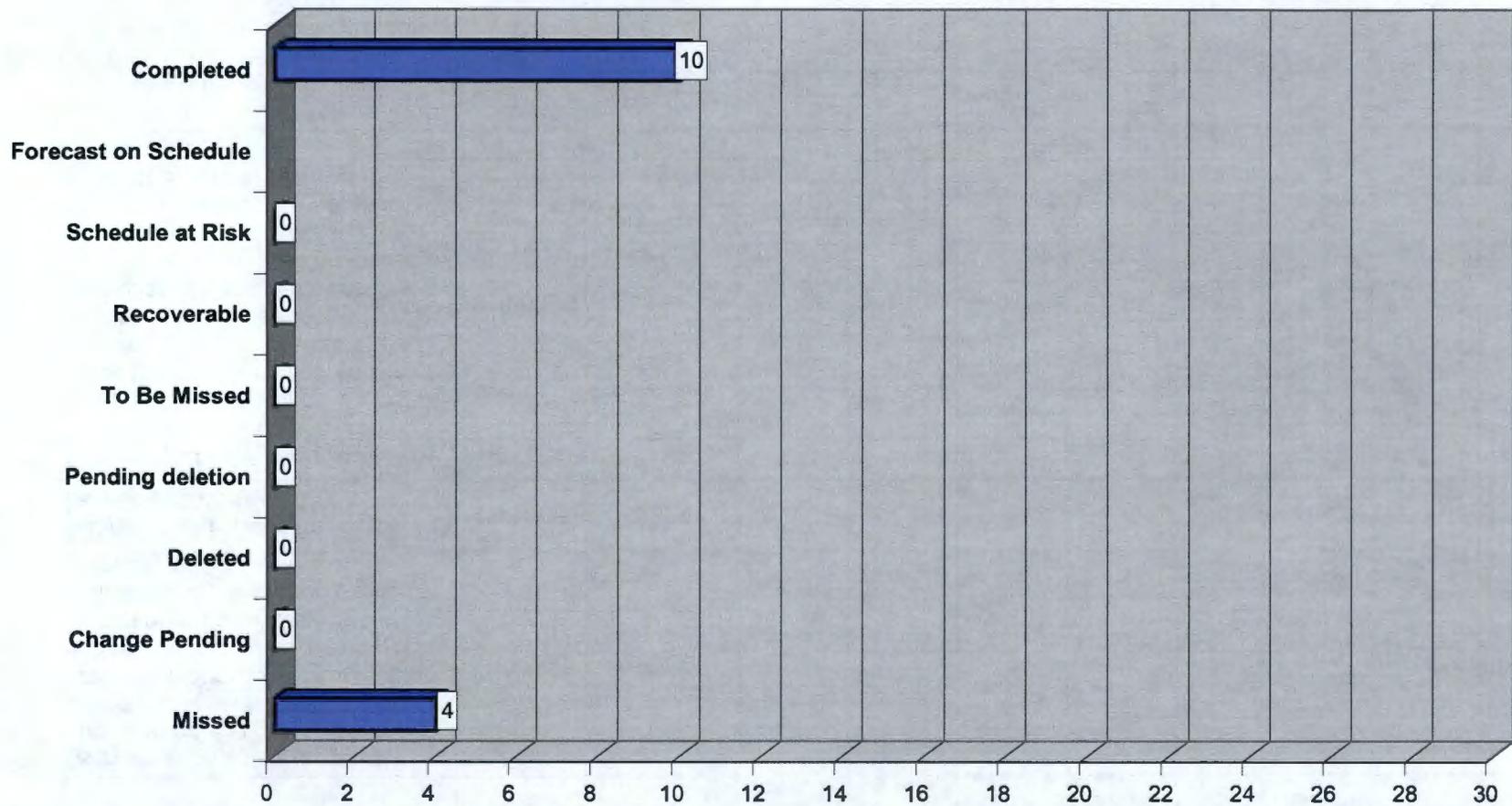
## Fiscal Year 2006 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Unrecoverable	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
M-048-07A	Complete construction of the AZ-301 condensate return system and pit upgrades. This includes: 1) Complete construction of the AZ-301 condensate return system and remove the AZ-151 catch tank system from service [see M 45-07A-A]; 2) Complete construction of AP-106A Central Pump upgrade [M-48-07A-B]; and 3) complete construction of SY-B Valve Pit upgrade [see M 48-07A-C].	06/30/06	06/08/06								
M-048-07A-C	Completion of construction for the 241-SY-B valve pit upgrade (remove existing equipment, evaluate pit integrity, and replace pit coating, if necessary). This scheduled deliverable is a subset of M-48-07A, and thus labeled as M-48-07A-C.	06/30/06	06/08/06								
M-048-07B	The Disposition of all Double-Shell Tank Transfer System Components that will not remain in use beyond June 30, 2005.	06/30/06	6/22/06								
M-062-08	Submittal Of Hanford Tank Waste Supplemental Treatment Technologies Report, Draft Hanford Tank Waste Treatment Baseline, And Draft Negotiations Agreement In Principle (AIP).	06/3/06						X			

### Fiscal Year 2006 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Unrecoverable	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
M-045-56B	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.	07/01/06	07/01/06								
M-062-01M	Submit Semi-Annual Project Compliance Report.	07/31/06	07/31/06								
M-045-00B	Complete specified "near term" SST waste retrieval and interim closure activities, to result in the retrieval of all tank wastes in WMA-C SSTs pursuant to the agreement criteria in milestone M-45-00.	09/30/06						X			
M-045-00C	Initiate negotiation of SST waste retrieval and closure activities and associated schedules (for the period February 07 through August 08).	09/30/06						X			

### FY 2007 MILESTONE PERFORMANCE



## Fiscal Year 2007 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Unrecoverable	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
D-001-00-R30	DOE shall, on a quarterly basis, submit to Ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	10/31/06	10/31/06								
M-062-03	Submit DOE Petition for RCRA Delisting of Vitrified HLW.	12/31/06	12/22/06								
M-045-00C-A	Ecology and DOE negotiations under this milestone shall be completed within 120 days. In the event the parties do not reach agreement within timeframe, the negotiations will be resolved as a resolution of dispute via final determination. Unless otherwise agreed by Ecology and DOE, this final determination will be issued within 150 days of initiation of negotiations.	01/28/07						X			
M-062-01N	Submit Semi-Annual Project Compliance Report.	01/31/07	01/31/07								
D-001-00-R31	DOE shall, on a quarterly basis, submit to Ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	01/31/07	01/26/07								

### Fiscal Year 2007 Tri-Party Agreement Milestone Status

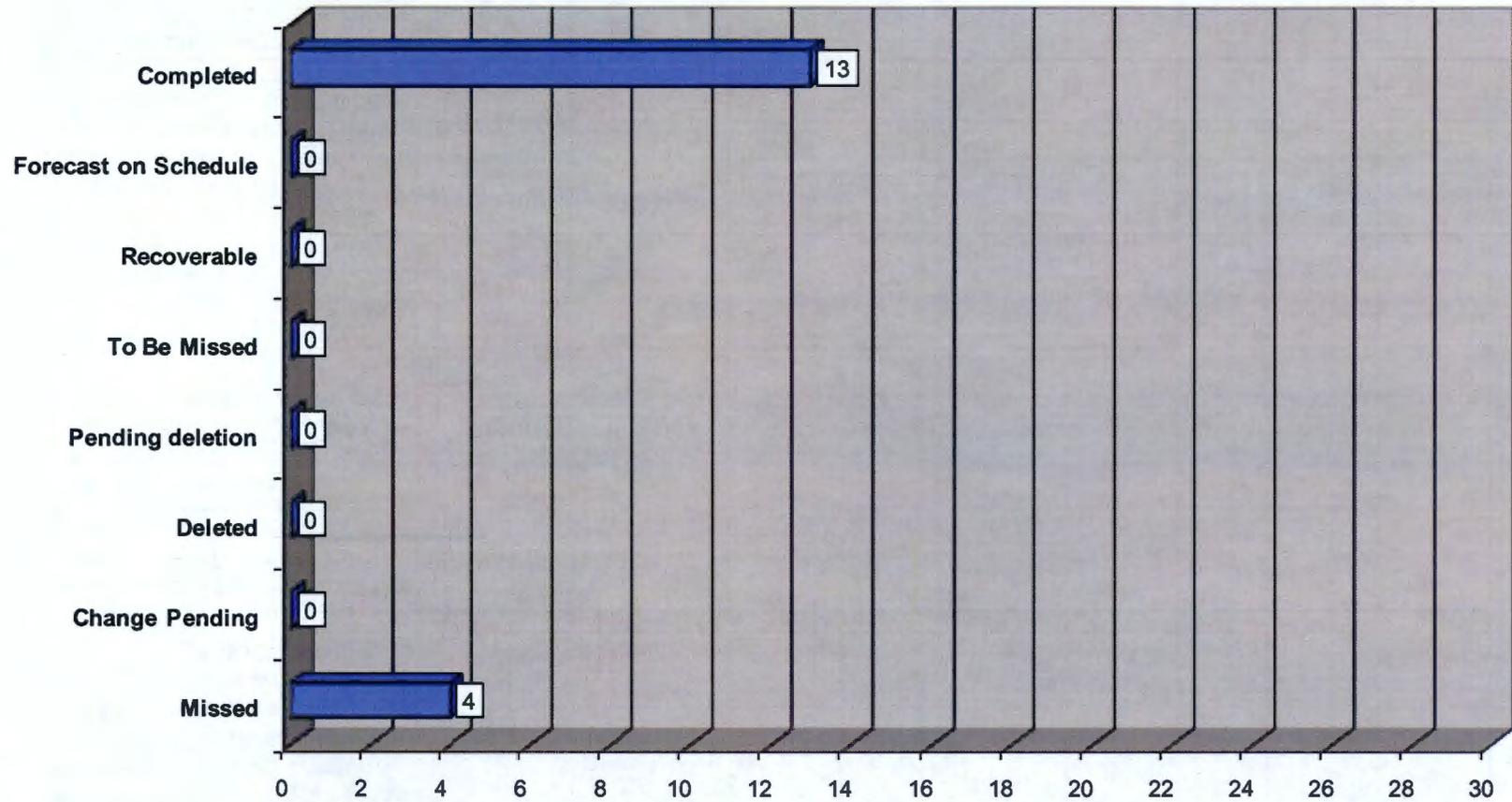
Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Unrecoverable	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
M-045-05A	Complete Waste Retrieval from S-102.	3/31/07						X			
D-001-00-R32	DOE shall, on a quarterly basis, submit to Ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	04/30/07	04/27/07								
M-062-11	Submit a Final Hanford Tank Waste Treatment Baseline. Following completion of negotiations required by M-62-08, DOE will modify its draft baseline as required and submit its revised, agreed-to baseline for treating all Hanford Tank Waste (HLW, LAW, and TRU) by 12/31/2028.	06/30/07						X			
M-045-56C	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.	07/31/07	07/24/07								

## Fiscal Year 2007 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Unrecoverable	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
D-001-00-R33	DOE shall, on a quarterly basis, submit to Ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	07/31/07	07/30/07								
M-062-01O	Submit Semi-Annual Project Compliance Report.	07/31/07	07/31/07								
M-048-15	Submit a report to Ecology for the re-examination of six (6) DSTs by ultrasonic testing in all areas previously examined to provide comparative data from which to calculate corrosion rates in each of the six DSTs examined.	09/30/07	09/26/07								
M-045-05-T05	Initiate tank retrieval from five additional single-shell tanks.	09/30/07						X			
M-048-00	Complete Tank Integrity Assessment activities for Hanford's Double Shell Tank (DST) system.	09/30/07	09/26/07								

\* Milestone has been completed by ORP; Ecology has not yet concurred.

### FY 2008 MILESTONE PERFORMANCE



## Fiscal Year 2008 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Will Be Missed	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
D-001-00-R34	DOE shall, on a quarterly basis, submit to Ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	10/31/07	10/31/07								
M-045-13-A	Submit to Ecology a Retrieval Data Report for S-112 pursuant to Agreement Appendix I.	12/31/07	12/21/07								
M-045-13-B	Remaining waste has been adequately characterized, and a risk assessment completed for S-112 residuals that remain in the tank.	12/31/07	12/21/07								
M-062-07B	Complete Assembly of LAW Vitrification Facility melter #1 and complete move of #1 melter into the HLW Vitrification Facility	12/31/07						X			
M-062-01P	Submit Semi-Annual Project Compliance Report.	01/31/08	01/31/08								
M-045-55	Submit to Ecology a Phase 1 RFI report integrating results of data gathering activities and evaluations for all SST WMAs.	01/31/08	01/30/08								
D-001-00-R35	DOE shall, on a quarterly basis, submit to Ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	01/31/08	01/31/08								

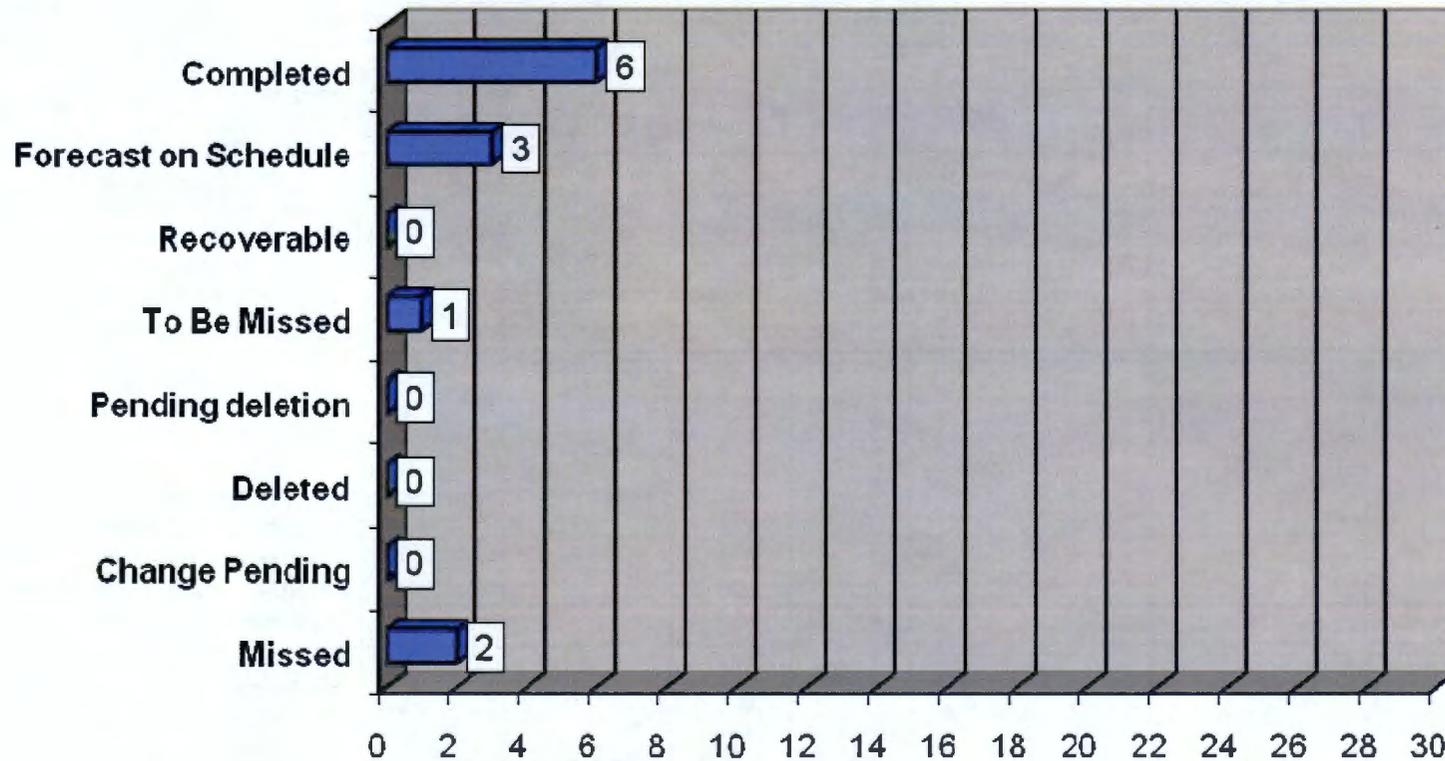
## Fiscal Year 2008 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Will Be Missed	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
M-045-00D	Initiate negotiations of SST waste retrieval and closure for 2008-2013.	01/31/08						X			
M-045-02N	Submit Biennial Update.	03/01/08	02/29/08								
M-045-02N-A	Three Parties shall meet to establish new milestones within 60 days, if required, for acquisition of additional tanks.	06/02/08	01/22/09								
D-001-00-R36	DOE shall, on a quarterly basis, submit to ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	04/30/08	04/30/08								
M-045-00D-A	Negotiations shall be complete within 150 days.	06/29/08						X			
M-045-56D	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.	07/31/08	07/22/08								
D-001-00-R37	DOE shall, on a quarterly basis, submit to ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	07/31/08	07/31/08								

### Fiscal Year 2008 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Will Be Missed	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
M-062-01Q	Submit Semi-Annual Project Compliance Report.	07/31/08	07/30/08								
M-090-10	Ready to accept placement of ILAW in ILAW Disposal Facility.	08/31/08	02/13/07								
M-45-05-T06	Initiate tank retrieval from five additional SSTs.	09/30/08						X			

### FY 2009 MILESTONE PERFORMANCE



### Fiscal Year 2009 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Will Be Missed	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
D-001-00-R38	DOE shall, on a quarterly basis, submit to Ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	10/31/08	10/28/08								
M-045-58	Submit to Ecology for Review and Approval as an Agreement Primary Document Phase 2 Master Work Plan that describes the proposed approach for the completion of Corrective Action to meet final closure requirements in the Waste Management Areas as described in Appendix I, Section 2.3	12/31/08	12/18/08								
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.	12/31/08	12/18/08								
M-062-01R	Submit Semi-Annual Project Compliance Report	01/31/09	01/30/09								

### Fiscal Year 2009 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Will Be Missed	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
D-001-00-R39	DOE shall, on a quarterly basis, submit to Ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	01/31/09	01/30/09								
M-062-09	Start Cold Commissioning – Waste Treatment Plant	02/28/09						X			
M-47-03A	Complete startup/turnover for waste retrieval mobilization systems for selected initial tank high-level waste feed tank	03/31/09						X			
D-001-00-R40	DOE shall, on a quarterly basis, submit to ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	04/30/09	04/29/09								
M-045-56E	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.	07/31/09		X							

### Fiscal Year 2009 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Will Be Missed	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
D-001-00-R41	DOE shall, on a quarterly basis, submit to ecology a written report documenting tank stabilization activities that occurred during the period covered by the report. This written report shall provide the status of progress made during the reporting period.	07/31/09		X							
M-062-01S	Submit Semi-Annual Project Compliance Report	07/31/09		X							
M-045-05-T07	Initiate tank retrieval from 7 additional SSTs	09/30/09					X				

# TANK FARM PROJECT EXECUTIVE SUMMARY

## April Reporting

### General

The earned value analysis is a comparison of cost and schedule performance to a one-year Interim Performance Measurement Baseline (IPMB). The one-year IPMB was developed as part of contract transition and is based on expected funding levels for fiscal year (FY) 2009. The earned value analysis is not intended to be a measurement of performance against existing Tri-Party Agreement Milestones.

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. Generally, performance is reported at WBS level 3 with the exception of WBS 5.01.01, Base Operations, and WBS 5.01.05, Project Support, wherein reporting is at level 4 to provide additional visibility and analysis.

The schedule (SV) and cost variance (CV) analysis thresholds at the reporting levels are as follows:

Current Month (CM) = +/- 10% and \$150K

Cumulative to Date (CTD) = +/- 10% and \$500K

### PROJECT BASELINE PERFORMANCE STATUS

WRPS April Project Performance - (\$K)										
	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC	EAC	VAC
CM	28,489.7	26,817.9	22,591.5	-1,671.8	4,226.4	0.94	1.19			
CTD	131,085.0	130,602.5	118,396.8	-482.5	12,205.7	1.00	1.10	247,714.0	239,479.6	8,234.4

The prime contributors to the unfavorable CTD SV is primarily due to: (1) tank recirculation efforts delayed (AP-107 and AP-105) and DST to DST transfers (AP-105 to AZ-102, and AP-104 to AP-101) starting later than planned; and (2) facility maintenance issues regarding 242-A Evaporator operations that delay startup and duration of 09-01/09-02 Evaporator Campaigns.

The primary contributors to the favorable CTD CV is primarily due to: (1) C-110 efficiencies and C-104 (surpassing expectations on slurry volume levels to date, sharing of construction crews between C-104 and DST AN-101, and performing mock-up activities with less than planned staff levels). Savings were partially offset by increased planning and preparatory work associated with activities supporting C-104's 04-A pit; (2) HIHTL

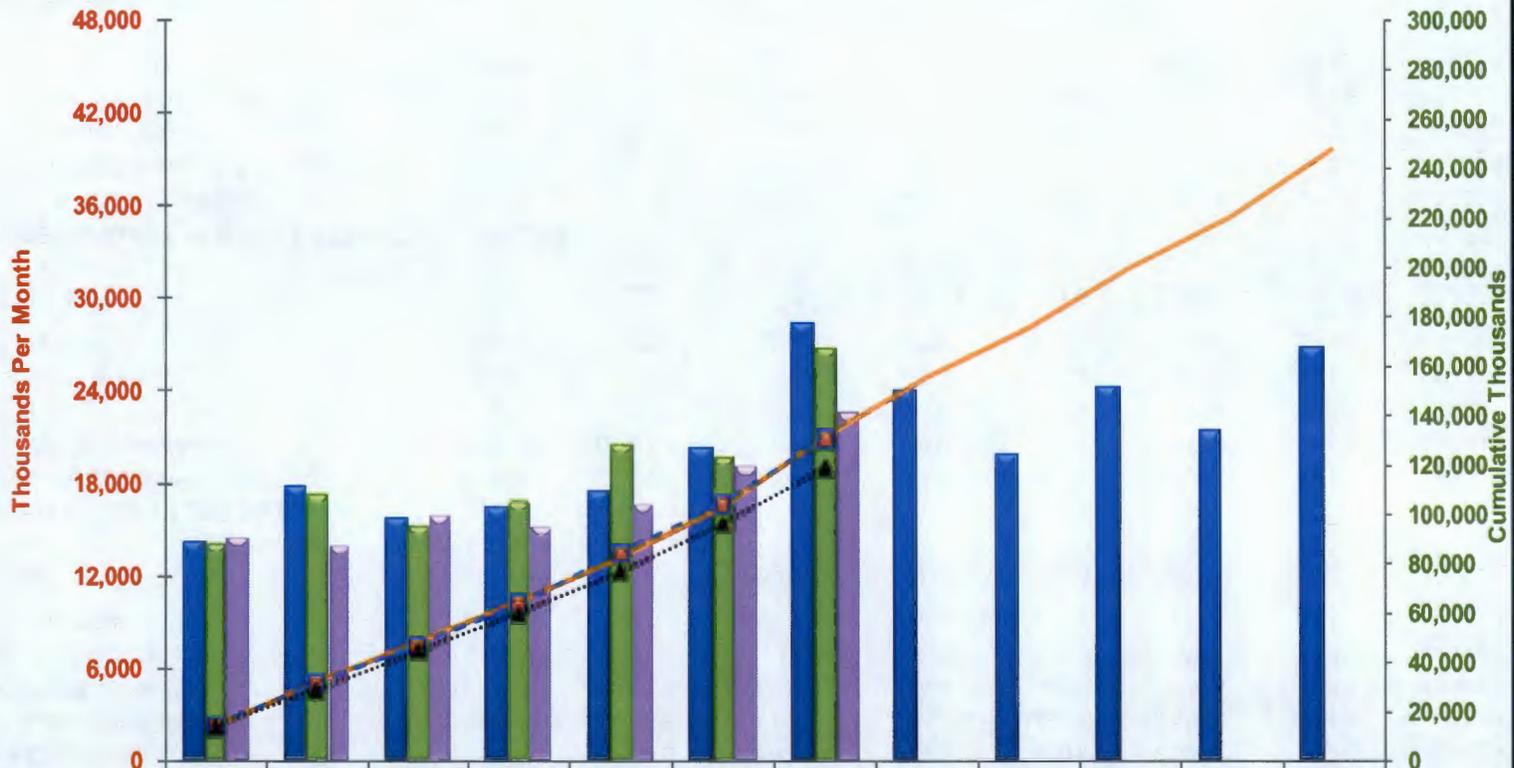
Disposition using multiple hoses in unison and contamination levels were lower than anticipated (transfer lines) (3) significant savings in the area of Business Services and Workforce Resources due to labor-under-runs and elimination of B&O tax and (4) savings due to obtaining excess furniture from Yucca Mountain vs. buying new/used furniture.

**CONTRACT-TO-DATE PERFORMANCE MEASUREMENT - 10/2008 - 04/2009**
**BY WORK BREAKDOWN STRUCTURE**

Dollars in Thousands

Cumulative Contract-To-Date									
WBS	TITLE	Budgeted Cost				Variance			
		Budget Cost of Work Scheduled	Budget Cost of Work Performed	Actual Cost Work Performed	Schedule	SV%	Cost	CV%	Budget at Completion (BAC)
<b>5.1</b>	<b>BASE OPERATIONS</b>								
5.1.1	Base Operations	37,099.7	37,454.9	36,929.6	355.2	1.0%	525.3	1.4%	66,022.4
5.1.2	DST Space Management	3,326.2	2,589.6	3,741.3	(736.6)	-22.1%	-1,151.7	-44.5%	4,923.1
5.1.3	TOC Facility Operations	11,002.5	11,007.8	9,865.5	5.4	0.0%	1,142.4	10.4%	19,470.5
5.1.4	Tank Farm Upgrades	1,492.1	1,136.3	1,152.5	(355.7)	-23.8%	-16.1	-1.4%	3,222.7
5.1.5	Project Support	<u>45,557.4</u>	<u>46,041.9</u>	<u>38,678.5</u>	<u>484.5</u>	1.1%	<u>7,363.4</u>	16.0%	<u>82,425.1</u>
	<b>TOTAL</b>	<u>98,477.9</u>	<u>98,230.5</u>	<u>90,367.4</u>	<u>-247.2</u>	<u>-0.3%</u>	<u>7,863.3</u>	<u>8.0%</u>	<u>176,063.8</u>
<b>5.2</b>	<b>RETRIEVE AND CLOSE SSTs</b>								
5.2.1	Retrieval/Closure Program	12,972.5	12,755.3	10,926.8	(217.2)	-1.7%	1,828.5	14.3%	28,466.3
5.2.2	SST Retrieval East Area	12,811.5	12,902.3	12,190.6	90.9	0.7%	711.8	5.5%	28,390.0
5.2.3	SST Retrieval West Area	162.3	193.7	148.3	31.4	19.3%	45.4	23.4%	409.0
5.2.4	Closure Program	819.9	820.1	498.8	0.0	0.0%	321.2	39.2%	1,415.3
5.2.5	SST Closure	<u>404.6</u>	<u>459.2</u>	<u>180.8</u>	<u>54.6</u>	13.5%	<u>278.4</u>	60.6%	<u>1,049.9</u>
	<b>TOTAL</b>	<u>27,170.8</u>	<u>27,130.6</u>	<u>23,945.3</u>	<u>-40.3</u>	<u>-0.1%</u>	<u>3,185.3</u>	<u>11.7%</u>	<u>59,730.5</u>
<b>5.3</b>	<b>WFD/TREATMENT PLNG/DST RETRIEVAL/CLOSURE</b>								
5.3.1	WTP Feed Delivery Program	4,355.7	4,292.5	3,215.5	(63.2)	-1.5%	1,077.0	25.1%	8,780.7
5.3.2	Construct DST Retrieval Systems	582.4	582.5	517.4	0.0	0.0%	65.1	11.2%	1,089.4
5.3.6	Immobilization Program	366.4	366.4	351.3	0.0	0.0%	<u>15.1</u>	4.1%	<u>650.2</u>
5.3.7	WTP Operational Readiness	131.9	0.0	0.0	(131.9)	-100.0%	<u>0.0</u>	0.0%	<u>1,099.0</u>
	<b>TOTAL</b>	<u>5,436.4</u>	<u>5,241.4</u>	<u>4,084.2</u>	<u>-195.1</u>	<u>-3.6%</u>	<u>1,157.2</u>	<u>22.1%</u>	<u>11,619.3</u>
<b>5.4</b>	<b>SUPPLEMENTAL TREATMENT</b>								
5.4.1	Supplemental Treatment	0.0	0.0	0.0	0.0	0.0%	0.0	0.0%	300.4
<b>TOC TOTAL</b>		<b>131,085.1</b>	<b>130,602.5</b>	<b>118,396.9</b>	<b>-482.6</b>	<b>-0.4%</b>	<b>12,205.8</b>	<b>9.3%</b>	<b>247,714.0</b>

**WRPS Cumulative-to-Date Performance (\$000)**  
**October 2008 - September 2009**



	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09
CM Plan (BCWS)	14,304	17,883	15,863	16,623	17,507	20,417	28,490	24,084	19,910	24,265	21,491	26,880
CM Perf (BCWP)	14,177	17,254	15,200	16,837	20,600	19,717	26,818					
CM Actuals (ACWP)	14,626	14,025	15,980	15,210	16,790	19,175	22,592					
CTD Plan (BCWS)	14,304	32,186	48,049	64,672	82,179	102,595	131,085	155,169	175,079	199,343	220,834	247,714
CTD Perf (BCWP)	14,177	31,431	46,631	63,468	84,067	103,785	130,603					
CTD Actuals (ACWP)	14,626	28,651	44,631	59,841	76,631	95,805	118,397					

**5.01.01 - BASE OPERATIONS****WBS 5.01.01.01 - Base Operations Project Management**

April 2009 (K\$)

	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC
CM	391.3	395.8	298.7	4.5	97.1	1.01	1.33	
CTD	1,970.7	1,975.2	1,550.9	4.5	424.2	1.00	1.27	3,516.5

**Schedule and Cost Variance Analysis**

The CM schedule and cost variances and CTD schedule variance are within reporting thresholds.

*The CTD cost variance of \$424K is reportable:*

Description/Cause: The CTD favorable cost variance is due to completing work with approximately 3 FTE's less than planned and subcontract work for sample analysis of vapor samples from B/BY Characterization has not yet started.

Impact: These accounts are expected to be overrun at the end of the FY.

Corrective Action: Management will continue to monitor labor charging practices and maintain overtime.

**WBS 5.01.01.02 - TSR/Surveillance & Maintenance**

April 2009 (K\$)

	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC
CM	3,969.5	3,915.6	3,836.5	-54.0	79.1	0.99	1.02	
CTD	23,451.3	23,424.5	24,358.4	-26.8	-933.8	1.00	0.96	41,565.1

The CM schedule and cost variances and CTD schedule variance are within reporting thresholds.

*The CTD cost variance of -\$933.8K is reportable:*

Description/Cause: The negative CV is the result of expending more labor than planned to perform the DST and SST TSR/Basic Maintenance activities. Project and field work has been slower to commence than anticipated resulting in resources being applied to general and backlog maintenance activities.

Impact: These accounts are expected to be overrun at the end of the FY.

Corrective Action: Management will continue to monitor labor charging practices and maintain overtime at minimum levels. The cumulative negative CV is expected to peak in the second quarter and then begin to decrease as field activities ramp up (242-A Evaporator Campaigns, DST to DST Transfers, and Tank Waste Sampling, etc.) and maintenance resources are assigned to support these other tasks.

**WBS 5.01.01.03 - TSR Administrative Controls****April 2009 (K\$)**

	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC
CM	487.3	363.7	414.1	-123.6	-50.4	0.75	0.88	
CTD	2,548.1	2,208.8	2,341.0	-339.3	-132.2	0.87	0.94	4,289.4

**Schedule and Cost Variance Analysis**

The CM schedule and cost variances and CTD cost variance are within reporting thresholds.

*The CTD schedule variance -\$339K is reportable:*

Description/Cause: The CTD unfavorable schedule variance is due to re-sequencing the grab samples to support the additional samples required for the AN-106 Caustic Addition in May and July 2009 and the C-108 Grab Sample PBI in June 2009. The Grab Sample for AP-107 and AZ-102 has been pushed out to be completed during the last quarter of FY09.

Impact: This account is currently reflecting a CM unfavorable schedule variance; however, it is anticipated that this account will be within the reporting threshold at fiscal year end.

Corrective Action: None required; the Grab Sample has been rescheduled to be completed in the last quarter of the FY.

**WBS 5.01.01.05 - Tank Chemistry and Integrity****April 2009 (K\$)**

	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC
CM	1,243.6	613.9	860.8	-629.7	-246.9	0.49	0.71	
CTD	4,197.4	4,891.2	4,664.3	693.8	226.9	1.17	1.05	7,801.0

**Schedule and Cost Variance Analysis**

*The CM schedule variance of -\$630K is reportable:*

Description/Cause: The CM unfavorable schedule variance is primarily due to performing the Equipment Shuffle activity for the AY-101 Corrosion Probe scope of work ahead of the April 2009 start date as a result of the work package being complete and the availability of resources. Additionally, performance was taken in prior months on the AW-101 as this activity was started ahead of the April 2009 schedule date after it was determined that the UT Device Testing and the UT Examinations can be performed in parallel with each other, rather than performing the UT Device Testing first and then perform the UT

Examinations of the DSTs. By performing these activities in parallel, the schedule risks have been reduced. Additionally, the AW-105 UT Examinations was understated in April 2009 due to an oversight.

Impact: None, these activities are being performed ahead of schedule and is expected to be within the reporting thresholds at year-end.

Corrective Action: None, these activities are currently being performed ahead of schedule.

#### **WBS 5.01.01.05 - Tank Chemistry and Integrity - Continued**

##### **Schedule and Cost Variance Analysis - Continued**

*The CM cost variance of -\$247K is reportable:*

Description/Cause: The CM cost variance is due to: 1) the AW-105 UT Examination (-\$137K); and 2) NDE Equipment Storage & Support (-\$66K) as a result of understating performance in April 2009.

Impact: This account is currently reflecting an unfavorable cost variance, but is expected to be within the reporting threshold at fiscal year end.

Corrective Action: The Project Manager will correct the understated performance in May 2009.

*The CTD schedule variance of +\$694K is reportable:*

Description/Cause: The CTD favorable schedule variance is due to performing the AY-102 Corrosion Probe activity ahead of the May 2009 start date and the subcontractor supporting the DST Supplemental Analysis & Modeling initiated work ahead of the April 2009 start date due to his availability.

Impact: None, these activities are being performed ahead of schedule and is expected to be within the reporting thresholds at year-end.

Corrective Action: None, these activities are currently being performed ahead of schedule.

*The CTD cost variance of \$227K is reportable:*

Description/Cause: The CTD favorable cost variance is primarily due to the AY-101 Corrosion Probe (+\$235K) as a result of the equipment shuffle activity taking less field resources to complete than originally estimated and the design & fabrication coming in less at the start of the activity. Additionally, the Expert Panel Oversight Committee (+\$68K) subcontract support has come in less than expected during the start of the activity.

Impact: This account is currently reflecting a favorable cost variance, however, it is anticipated that this account will be within the reporting threshold at fiscal year-end.

Corrective Action: None required at this time. This Project Manager is reviewing the support provided by the subcontractors to verify the current underrun and the value of the remaining work and field work has

just started and the efficiencies realized during the early start of this activity may be required if problems surface when installing the Corrosion Probe.

#### WBS 5.01.01.06 - Solid Waste Management

#### April 2009 (K\$)

	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC
CM	556.6	556.6	393.6	0.0	163.0	1.00	1.41	
CTD	3,195.8	3,195.8	2,572.5	0.0	623.3	1.00	1.24	5,671.5

#### Schedule and Cost Variance Analysis

The CM and CTD schedule variances are within reporting thresholds.

*The CM cost variance of \$163K is reportable:*

Description/Cause: The CM favorable cost variance is primarily due to Waste Treatment & Disposal the volume of Low Level Mixed Waste Debris and Volume Reduction received at the PermaFix facility pending process and disposal. When waste is received at PermaFix, 50% of the costs are billed to WRPS; 40% is billed when the waste has been processed; and the remaining 10% is billed when the waste has been disposed and the boxes are returned. PermaFix has up to 12 months to process the waste once it has been received at their facility, therefore, it could be several months before we receive the costs for processing and disposal of the waste.

Impact: This account is reflecting a CM favorable cost variance.

Corrective Action: Management has reviewed the Waste processing needs for the remainder of the year and has identified a potential saving due to the possibility of sending waste to ERDF. A decision is expected to be made in June, once it has been determined if the pumps being removed from C-Farm are going to be classified as TRU Waste.

*The CTD cost variance of \$623K is reportable:*

Description/Cause: The CTD favorable cost variance is due to 1) Waste Treatment & Disposal the volume of Low Level Mixed Waste Debris and Volume Reduction received at the PermaFix facility pending process and

disposal. When waste is received at PermaFix, 50% of the costs are then billed to WRPS; 40% is billed when the waste has been processed; and the remaining 10% is billed when the waste has been disposed and the boxes are returned; 2) Waste Management Engineering & Technical Support and Waste Operations due to less than expected shipments being sent to off-site facilities.

Impact: 1) Waste Treatment & Disposal will continue to reflect a favorable cost variance until PermaFix has completed processing and disposing of the waste received; and 2) Waste Management Engineering

& Technical Support and Waste Operations will continue to reflect a favorable cost variance until waste shipment begin to increase. It is expected that this account will be within the reporting threshold at fiscal year-end.

**Corrective Action:** Management has reviewed the Waste processing needs for the remainder of the year and has identified a potential saving due to the possibility of sending waste to ERDF. A decision should be made in June, once it has been determined if the pumps being removed from C-Farm are going to be classified as TRU Waste.

#### 5.01.02 - DST SPACE MANAGEMENT

April 2009 (K\$)

	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC
CM	736.4	320.6	710.7	-415.9	-390.1	0.44	0.45	
CTD	3,326.2	2,589.6	3,741.3	-736.6	-1,151.7	0.78	0.69	4,923.1

#### Schedule and Cost Variance Analysis

*The CM schedule variance of -\$416K is reportable:*

**Description/Cause:** The CM unfavorable schedule variance is due to being behind schedule on two (2) Recirculation of Waste within Tanks AP-107 and AP-105 and two (2) DST to DST Transfers of Waste from Tank 241-AP-105 to Tank 241-AZ-102 and Tank 241-AP-104 to Tank 241-AP-101. These four activities were initially scheduled to be completed by March 2009, prior to the External Transfer of Waste from the 219-S Building, but due to the Safety Significant Valves Potential Inadequacy in the Safety Analysis (PISA) and subsequent Technical Safety Requirement (TSR) violation for past transfers, the sequence of transfers was changed and the External Transfer, which did not rely on any Safety Significant valves, was completed in November 2008. In addition, the schedule has been negatively impacted by the as found conditions in the Valve Pits and degrading transfer equipment requiring repairs prior to the transfer; the new Transfer Readiness-to-Proceed process requirement to perform dry runs prior to the actual transfer; and by the accelerated C-110 Retrieval causing other DST transfers in the schedule to slip resulting in impacts to the original schedule recovery actions. Additionally, sample results taken from Tank 241-AN-106 post retrieval start up have concluded that a 3rd transfer from this tank will be required in order to achieve 100% retrieved from C-110. The need to perform a 3rd decant transfer will continue to push the transfers already behind schedule.

Additionally, an unfavorable schedule variance is due to Tank Farm and 242-A Evaporator facility maintenance issues impacting the start-up and duration of the 09-01/09-02. This unfavorable schedule

variance is expected to increase in May and June due continuing maintenance issues and the unplanned emptying of the C-A-1 vessel in March and April.

Impact: This transfer account will continue to reflect an unfavorable schedule variance thru June 2009, as the four behind schedule activities began in April and will complete in June 2009. Not performing these transfers as scheduled will continue to push out transfers and negatively impact the schedule. The 242-A Evaporator account is planned to be within the reporting threshold at fiscal year end.

Corrective Action: Management is continuing to evaluate the slip in schedule and will make efforts to stay on track with the fiscal year transfer commitments. Until this evaluation is complete, the transfer schedule may be negatively impacted.

*The CM cost variance of -\$390K is reportable:*

Description/Cause: The CM 242-A Evaporator Operations and Maintenance unfavorable CV (-\$135.2K) is due primarily to unplanned maintenance costs associated with work being performed in the Condenser Room, continued repair work on the replacement electric compressors, and unplanned emptying of the C-A-1 vessel in response to a TEDF transfer line leak.

Impact: The unfavorable CV is unrecoverable. It is anticipated that the unfavorable CV will increase as resources are deployed to address emergent maintenance issues and support performance of Campaigns 09-01/09-02 and on-the-job (OJT) training for new operator trainees.

Corrective Action: Base Operations Management to monitor variance in this area with respect to overall FOC scope.

*The CTD schedule variance of -\$737K is reportable:*

Description/Cause: The CM unfavorable schedule variance is due to being behind schedule on two (2) Recirculation of Waste within Tanks AP-107 and AP-105 and two (2) DST to DST Transfers of Waste from Tank 241-AP-105 to Tank 241-AZ-102 and Tank 241-AP-104 to Tank 241-AP-101. These four activities were initially scheduled to be completed by March 2009, prior to the External Transfer of Waste from the 219-S Building, but due to the Safety Significant Valves Potential Inadequacy in the Safety Analysis (PISA) and subsequent Technical Safety Requirement (TSR) violation for past transfers, the sequence of transfers was changed and the External Transfer, which did not rely on any Safety Significant valves, was completed in November 2008. In addition, the schedule has been negatively impacted by the as found conditions in the Valve Pits and degrading transfer equipment requiring repairs prior to the transfer; the new Transfer Readiness-to-Proceed process requirement to perform dry runs prior to the actual transfer; and by the accelerated C-110 Retrieval causing other DST transfers in the schedule to slip resulting in impacts to the original schedule recovery actions. Additionally, sample results taken from Tank 241-AN-106 post retrieval start up have concluded that a 3rd transfer from this tank will be required in order to achieve 100% retrieved from C-110. The need to perform a 3rd decant transfer will continue to push the transfers already behind schedule.

Additionally, an unfavorable schedule variance is due to Tank Farm and 242-A Evaporator facility maintenance issues impacting the start-up and duration of the 09-01/09-02. This unfavorable schedule variance is expected to increase in May and June due continuing maintenance issues and the unplanned emptying of the C-A-1 vessel in March and April.

Impact: This transfer account will continue to reflect an unfavorable schedule variance thru June 2009, as the four behind schedule activities began in April and will complete in June 2009. Not performing these transfers as scheduled will continue to push out transfers and negatively impact the schedule. The 242-A Evaporator account is planned to be within the reporting threshold at fiscal year end.

Corrective Action: Management is continuing to evaluate the slip in schedule and will make efforts to stay on track with the fiscal year transfer commitments. Until this evaluation is complete, the transfer schedule may be negatively impacted.

*The CTD cost variance -\$1,152K is reportable:*

Description/Cause: The CTD unfavorable CV is due to (1) during the AN-106 to AZ-101 Transfer a leak was observed on Nozzle L and an investigative leak check was performed on OT to identify the extent of the leak and determine if the transfer could still be performed with newly discovered potential problem; and (2) unplanned maintenance costs associated with the decontamination of the condenser room, maintenance being performed in the condenser room, inspection/repair/ replacement of the air compressors, and unplanned emptying of the C-A-1 vessel in response to a leak in the TEDF transfer line.

Impact: The unfavorable CV is not recoverable (1) It is anticipated that the unfavorable cost variance at year-end could increase by an additional \$400K due to the as found conditions during the first two transfers and new Transfer Readiness-to-Proceed process requirement to perform dry runs prior to the actual transfer; and the 242-A variance is expected to increase as resources are deployed to address emergent maintenance and support performance of Campaigns 09-01/09-02 and on-the-job training (OJT) training for new operator trainees.

Corrective Action: Base Operations Management to monitor variance in this area with respect to overall FOC scope.

### 5.01.03 - TOC FACILITY OPERATIONS

#### April 2009 (K\$)

	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC
CM	1,855.5	2,066.6	1,845.3	211.1	221.4	1.11	1.12	
CTD	11,002.5	11,007.8	9,865.5	5.4	1,142.4	1.00	1.12	19,470.5

**Schedule Variance and Cost Variance Analysis**

The CTD schedule variance is within reporting thresholds.

*The CM schedule variance of \$211K is reportable:*

Description/Cause: The CM CV is due to the increased BCWP associated with the completion of the 222-S Laboratory Life-Extension Strategic Management Plan and associated risk assessments. The study was planned to be released in March 2009; however, comment resolution and incorporation took longer than expected and the study was released at the end of April 2009. The CTD variance is accurate.

Impact: None.

Corrective Action: None.

*The CM cost variance of \$221K is reportable:*

Description/Cause: The CM CV is due to increased BCWP associated with the completion of the 222-S Laboratory Life-Extension Strategic Management Plan and associated risk assessments. The study was planned to be released in March 2009; however, comment resolution and incorporation took longer than expected and the study was released at the end of April 2009. The CTD variance is accurate.

Impact: A variance is being reported in the CM.

Corrective Action: None.

*The CTD cost variance of \$1,142K is reportable:*

Description/Cause: The CTD CV is due to actual costs [maintenance, materials, and refrigeration equipment services (RES) support] fluctuating throughout the FY against a planned resource spread. The repair of the stairway at door 17/18 is planned to begin in May 2009 with construction submittals and procurement; in addition, the annual renewal of analytical equipment service agreements will be performed later in the FY than represented in the current baseline.

Impact: None.

Corrective Action: The positive CV will grow at a reduced rate, due to target funding levels being less than the current baseline. The current baseline reflects planned Advanced Technologies and Laboratories International, Inc. (ATL) analysis and Bonneville Power Administration (DOE) (BPA) distribution which are direct-funded by ORP.

**5.01.04 - TANK FARM UPGRADES**

April 2009 (K\$)

	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC
CM	299.7	222.9	438.5	-76.8	-215.7	0.74	0.51	
CTD	1,492.1	1,136.3	1,152.5	-355.7	-16.1	0.76	0.99	3,222.7

**Schedule and Cost Variance Analysis**

The CM schedule and CTD cost variance are within reporting threshold.

*The CM cost variance of -\$216K is reportable:*

Description/Cause: The CM unfavorable cost variance is due to the purchase of 6 cameras being charged to this account in error. The 6 camera costs and associated tax of \$305K will be transferred to the appropriate account in May.

Impact: This account is reflecting an unfavorable cost variance, but will be corrected in May 2009.

Corrective Action: A cost transfer is being processed to move these costs to the DST Spare Parts account.

*The CTD schedule variance of -\$356K is reportable:*

Description/Cause: The CTD unfavorable schedule variance is due to limited engineering resources due to the 242-A Evaporator Campaign challenges which continue to utilize resources necessary for the Life Extension Study, PC-5000 Leak Detector Preliminary Design, and the 242-A Exhaust Skid Design.

Impact: This account is reflecting an unfavorable cost variance, but will be corrected in May 2009.

Additionally, the CTD unfavorable schedule variance is due to 1) the DST Valve Assembly Upgrades AW-B field work being delayed due to the 242-A Evaporator Campaign completing later than expected. This work cannot be performed until the 242-A Evaporator Campaign has completed, and 2) the Cathodic Protection Upgrades due to the late completion of the Annual Cathodic Protection System Adjustment by Base Operations. The Cathodic Protection System Project Rectifier Adjustments could not be performed until the Annuals were complete.

Impact: This account is currently reflecting an unfavorable schedule variance. It is anticipated that PC-5000 Preliminary Design Development and the Life Extension Study will be completed in FY09. However, the 242-A Exhaust Skid Design scope will not be completed in FY09 and is planned to be completed in FY10 as Recovery Act Scope.

Corrective Action: Engineering support for the Life Extension Study, PC-5000 Leak Detector Preliminary Design, and the 242-A Exhaust Skid Design Procurement Specification has been subcontracted out in

order to continue efforts and minimize schedule impact at the end of FY09. A BCR will be processed to reflect the actual work to be completed this year for the 242-A Exhaust Skid Design.

#### 5.01.05 - PROJECT SUPPORT

##### WBS 5.01.05.01 - Project Integration

#### April 2009 (K\$)

	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC
CM	842.4	865.5	671.3	23.1	194.2	1.03	1.29	
CTD	4,589.5	4,577.1	3,999.6	-12.5	577.5	1.00	1.14	8,009.6

#### Schedule Variance and Cost Variance Analysis

The CM and CTD schedule variances are within reporting thresholds.

*The CM cost variance of \$194K is reportable:*

Description/Cause: CM CV was driven by 1) a single-month point adjustment related to ROS accruals.

This account has been changed from an invoiceable account (purchase order) to a direct charge account (multiple release/Staff Aug). The actual costs for this ROS account are now in alignment. 2) Cost savings in sub-contracted work within Project Integration and Interfaces Management.

Impact: None.

Corrective Action: None.

*The CTD cost variance of \$578K is reportable:*

Description/Cause: The positive variance is primarily attributable to subcontractor cost savings due to negotiated lower rates with Staff Aug as well as maintaining one Staff Aug vacancy that is yet to be filled.

Impact: None.

Corrective Action: None.

##### WBS 5.01.05.05 - Workforce Resources

#### April 2009 (K\$)

	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC
CM	987.9	884.2	661.0	-103.7	223.1	0.90	1.34	
CTD	4,654.6	5,013.4	3,405.2	358.8	1,608.2	1.08	1.47	8,966.2

#### Schedule Variance and Cost Variance Analysis

The CM and CTD schedule variances are within reporting thresholds.

*The CM cost variance of \$223K is reportable:*

Description/Cause: Due to actual relocation costs being below forecasted levels within Human Resources (+\$135K).

Impact: None.

Corrective Action: None.

*The CTD cost variance of \$1,608K is reportable:*

Description/Cause: This positive CV is the result of under-runs in TOC Training (+\$1,181K): training class attendance through March being below planned levels (+\$548K), earned value progress on training "seat time" against \$0 actuals (+\$510K), and labor under-runs in the Training Program (+\$123K); and Human Resource relocation costs being below planned levels (+\$427K).

Impact: None, tuition charges and labor under-runs was expected. No adverse impact is projected as a result of these positive variances. No impact is projected at the company level as a result of the training seat-time variance, as the actual seat-time costs were planned during transition to be accrued in WBS, 5.1.1.4.2 - Bargaining Unit Training.

#### **Schedule Variance and Cost Variance Analysis - Continued**

Corrective Action: None, actual training class attendance is projected to increase throughout the FY and the variance resulting from lower subcontracted tuition charges will begin to diminish. The positive labor variances are expected to continue in FY09. Continue to monitor and report variances generated by the seat-time scope included in this WBS.

#### **WBS 5.01.05.06 - Business Services**

##### **April 2009 (K\$)**

	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC
CM	2,177.7	2,177.7	2,267.7	0.0	-90.0	1.00	0.96	
CTD	12,614.0	12,614.0	10,336.4	0.0	2,277.6	1.00	1.22	22,401.0

#### **Schedule Variance and Cost Variance Analysis**

The CM schedule and cost variances and CTD schedule variance are within reporting thresholds.

*The CTD cost variance of \$2,278K is reportable:*

Description/Cause: 1) Finance Support (+\$931K): due to the B&O tax being eliminated as the result of the high tech credit (+\$836K), company travel to date being below planned levels (+\$75K); 2) Facility and Property Management (+\$581K): resulting from unfilled staffing positions (+\$418K), elimination of occupancy costs (+\$239K), and DOE allocated costs (+\$193K); 3) Information Resource Management

(+\$454K): resulting from lower costs than planned for Materials through March; and 4) Procurement and Contracts (+\$431K) due being below planned staffing levels, and subcontractor costs being below planned levels.

**Impact:** Finance Support: eliminating the B&O tax and reduction of planned travel costs will reduce the EAC. Facility and Property Management: none. Information Resource Management: none. Procurement and Contracts: subcontract costs will begin to level out underruns in remaining FY.

**Corrective Action:** Information Resource Management: BCR# 09-072 is being developed to add budget to this WBS in support of incremental scope. Any projected year-end Material underruns will be reviewed for return to MR. Procurement and Contracts: backfill positions as needed.

#### WBS 5.01.05.07 - Executive Management

##### April 2009 (K\$)

	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC
CM	461.5	461.5	230.6	0.0	230.9	1.00	2.00	
CTD	1,992.5	1,992.5	1,815.7	0.0	176.8	1.00	1.10	3,535.9

#### Schedule Variance and Cost Variance Analysis

The CM schedule variance and CTD schedule and cost variances are within reporting thresholds.

*The CM cost variance of \$231K is reportable:*

**Description/Cause:** The positive cost variance is the result of subcontract accruals not being processed for the month of April 2009.

**Impact:** None. The missed accrual will be accounted for in May 2009.

**Corrective Action:** Insure all necessary accruals are processed in a timely manner.

#### WBS 5.01.05.08 - Hanford Pension and Benefits

##### April 2009 (K\$)

	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC
CM	1,600.8	1,600.8	1,225.5	0.0	375.4	1.00	1.31	
CTD	9,092.8	9,092.8	8,388.1	0.0	704.7	1.00	1.08	16,136.5

#### Schedule Variance and Cost Variance Analysis

The CM and CTD schedule variances are within reporting thresholds.

*The CM cost variance of \$375K is reportable:*

Description/Cause: The positive cost variance is the result of subcontract accruals not being processed for the month of April 2009.

Impact: None. The missed accrual will be accounted for in May 2009.

Corrective Action: Insure all necessary accruals are processed in a timely manner.

*The CTD cost variance of \$705K is reportable:*

Description/Cause: The positive cost variance is the result of subcontract accruals not being processed for the month of April 2009.

Impact: None. The missed accrual will be accounted for in May 2009.

Corrective Action: Insure all necessary accruals are processed in a timely manner.

#### 5.02.01 - RETRIEVAL/CLOSURE PROGRAM

April 2009 (K\$)

	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC
CM	3,693.7	3,749.8	1,958.1	56.1	1,791.7	1.02	1.92	
CTD	12,972.5	12,755.3	10,926.8	-217.2	1,828.5	0.98	1.17	28,466.3

#### Schedule Variance and Cost Variance Analysis

The CM and CTD schedule variances are within reporting thresholds.

*The CM cost variance of \$1,792K is reportable:*

Description/Cause: the favorable CV is attributable to; 1) HIHTL Disposition: due to efficiencies in engineering and field work activities (multiple hoses were used in unison, several HIHTLs were less contaminated than anticipated, and application of previous HIHTL removal assisted in current removal activities). 2) Catch Tank & Pipeline Reporting: due to using direct labor rather than scheduled subcontractor support, and cost efficiencies with the Catch Tanks and Pipeline Report due to the use of an existing database and records. 3) Retrieval Technology Development: resulting from a correction of a previous month's vendor accrual associated with the MARS. 4) Other Characterization: due to transferring subcontracted field work costs for the performance of TY-Farm Spectral Gamma Logging and T-Farm Interim Surface Barrier monitoring to the Interim Measures Control Account (WBS 5.02.01.04.09) with the implementation BCR-09-011. The cost transfer was processed to appropriately align the reported performance and cost under the Interim Measures Control Account.

Impact: 1) HIHTL Disposition: none. EAC has been adjusted to accurately reflect project under-runs. Funds will be monitored at the FOC level. 2) Catch Tank & Pipeline Reporting: none. EAC has been adjusted to reflect the project under-runs. Funds will be managed at the FOC level. 3) Retrieval

Technology Development: none. 4) Other Characterization: subcontract cost transfers accurately reflect FYTD performance and cost for this work scope.

**Corrective Action:** 1) HIHTL Disposition: savings from efficiencies have been allocated to other WRPS priorities. 2) Catch Tank & Pipeline Reporting: savings from efficiencies have been allocated to other WRPS priorities. 3) Retrieval Technology Development: vendor submitted a monthly cost profile of expected expenditures for the project as part of a contract proposal. WRPS will meet monthly with the vendor for validation of these expected costs and associated accruals. 4) Other Characterization: the transfer of interim measures/barriers work scope to the Interim Measures Control Account results in realized efficiencies in this account.

*The CTD cost variance of \$1,829K is reportable:*

**Description/Cause:** the CTD favorable CV is attributable to; 1) HIHTL Disposition: same as CM explanation. 2) Catch Tank & Pipeline Reporting: same as CM explanation. The CTD CV was partially offset by Retrieval Program Management; primarily due to higher than planned costs for HPT readiness. HPTs utilized a higher than planned readiness to serve rate due to various factors (weather setbacks and training). Because a readiness to serve account was not established within the field activities, ESH&Q management account was charged for the first five months of the FY until charging practices could be established. In addition, actual costs for executive level staff were higher than planned in the FY 2009 budget.

**Impact:** 1) HIHTL Disposition: same as CM explanation. 2) Catch Tank & Pipeline Reporting: same as CM explanation. 3) Retrieval Program Management: the cost impacts from HPT readiness and executive charges have been factored into the FY 2009 spend forecast and have been adequately identified in the current Project Direction Notice (PDN Rev 4).

**Corrective Action:** 1) HIHTL Disposition: same as CM explanation. 2) Catch Tank & Pipeline Reporting: same as CM explanation. 3) Retrieval Program Management: HPT readiness to serve charges are currently being costed within the field work activities. For life cycle planning, a separate cost account has been established to collect these costs. In addition, a formal BCR was implemented to align the executive planning rates with actual costs.

#### 5.02.02 - SST RETRIEVAL EAST AREA

April 2009 (K\$)

	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC
CM	3,443.1	2,534.7	2,838.9	-908.4	-304.3	0.74	0.89	
CTD	12,811.5	12,902.3	12,190.6	90.9	711.8	1.01	1.06	28,390.0

### Schedule Variance and Cost Variance Analysis

The CTD schedule variance is within reporting thresholds.

*The CM schedule variance of -\$908K is reportable:*

Description/Cause: The unfavorable schedule variance is due to; 1) C-104 Retrieval: resulting from delays in resolving Commercial Grade Items Dedication (CGID) issues for SS components, high radiation conditions in the 04A-Pit, and weather delays. 2) C-110 Retrieval: attributable to acceleration of C-110 Construction and Retrieval Operations. Monthly BCWS is now appearing for work that was completed ahead of schedule.

Impact: C-104 Retrieval: the scheduled completion date has been rescheduled to August 14, 2009. The start of Retrieval Operations has also been adversely affected. C-110 Retrieval: none.

Corrective Action: C-104 Retrieval: Supplemental Funding (Omnibus) is allowing construction crews to work extra shifts (6-10's) to accelerate installation of the Waste Retrieval System. Retrieval Operations is also planning on working multiple shifts during retrieval. Engineering and QA resources are focused on resolving outstanding CGIDs for Safety Significant components. C-110 Retrieval: none.

*The CM cost variance of -\$304K is reportable:*

Description/Cause: The unfavorable CM CV is primarily due to C-104 Retrieval increasing planning and preparatory work required to complete 04-A jumper removal, pump removal /disposal, and sluicer installation due to high radiation readings in the 04-A pit). In addition, compliance with CGID has resulted in additional labor and material costs for rework of QA Inspection Plans, including rigorous inspections and travel to vendor facilities. The unfavorable CV is partially offset by; 1) C-Farm Infrastructure: due to sharing construction crews between C-104 Retrieval and AN-101. Cost efficiencies achieved in April 2009 included work activities associated with installation of slurry distributor in Pit AN-01A and efforts associated with AN-101 Pit Work. 2) C-110 Retrieval: due to retrieval efficiencies being higher originally anticipated (planned slurry volume loading by percent was ~20%, whereas the model predicted less than 10%). 3) C-108 Retrieval due to mockup activities at the CTF requiring less than planned employees.

Impact: C-104 Retrieval: elements of C-104 will be overrun but mitigation strategies will decrease the total cost over-run. C-Farm Infrastructure: none. C-110 Retrieval: account is expected to under-run in cost. C-108 Retrieval: currently forecasted to under-run at project completion; however, an unexpected procurement may utilize part of the forecasted efficiencies.

Corrective Action: C-104 Retrieval: cost impacts will be identified in the spend forecast. C-Farm Infrastructure: funds will be managed at the FOC Level. C-110 Retrieval: EAC has been adjusted to reflect the project under-runs. C-108 Retrieval: funds will continue to be managed at a FOC level.

*The CTD CV of \$712K is reportable:*

**Description/Cause:** The positive CTD CV was driven by; 1) C-110 Retrieval efficiencies in C-110 and C-104 retrievals. Retrieval efficiencies were higher than originally anticipated (planned slurry volume loading by percent was ~20%, whereas the model predicted less than 10%). 2) C Farm Infrastructure sharing construction crews between C-104 Retrieval and AN-101. Cost efficiencies achieved resided within support of the AN 101 waste feed tank. 3) C-108 Retrieval: due to mockup activities at the CTF requiring less than planned employees, which resulted from HPTs and IHTs didn't requiring additional training. The CTD CV was partly counterbalanced by C-104 Retrieval increasing planning and preparatory work required to complete 04-A jumper removal, pump removal /disposal, and sluicer installation due to high radiation readings in the 04-A pit). In addition, compliance with CGID has resulted in additional labor and material costs for rework of QA Inspection Plans, including rigorous inspections and travel to vendor facilities

**Impact:** C-110 Retrieval: account is expected to under-run in cost. C Farm Infrastructure: none. C-108 Retrieval: currently forecasted to under-run at project completion; however, an unexpected procurement may utilize part of the forecasted efficiencies. C-104 Retrieval: elements of C-104 will be overrun but mitigation strategies will decrease the total cost over-run

**Corrective Action:** Funds will be managed at the FOC level.

### 5.02.03 - SST RETRIEVAL WEST AREA

#### April 2009 (K\$)

	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC
CM	77.7	73.9	54.4	-3.8	19.4	0.95	1.36	
CTD	162.3	193.7	148.3	31.4	45.4	1.19	1.31	409.0

**5.02.05 - SST CLOSURE****April 2009 (K\$)**

	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC
CM	-32.8	162.8	51.1	195.6	111.7	-4.97	3.19	
CTD	404.6	459.2	180.8	54.6	278.4	1.13	2.54	1,049.9

**Schedule Variance and Cost Variance Analysis**

The CM cost and CTD schedule and cost variances are within reporting thresholds.

*The CM schedule variance of \$196K is reportable:*

Description/Cause: The favorable schedule variance is due to point adjustments from BCR-09-048, "Closure Demonstration Reduction of Scope" which deleted \$543K worth of scope consisting of activities C-301 Waste Retrieval System Design and Waste Determination. These activities will be reassigned to another Waste Management account.

Impact: None. The EAC has been adjusted to reflect the project under-runs. Funds will be managed at the FOC level.

Corrective Action: Savings from efficiencies are being evaluated as funds become available for other Retrieval and Closure scope.

**5.03.01 - WTP FEED DELIVERY PROGRAM****April 2009 (K\$)**

	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC
CM	1,249.3	1,265.5	741.3	16.2	524.2	1.01	1.71	
CTD	4,355.7	4,292.5	3,215.5	-63.2	1,077.0	0.99	1.33	8,780.7

**Schedule Variance and Cost Variance Analysis**

The CM schedule and cost variances and CTD schedule variance are within reporting thresholds.

*The CTD CV of \$1,077K is reportable:*

Description/Cause: The positive CV is due to: labor under-runs attributable to staffing vacancies and contracts have not been awarded to support strategic initiatives after Hanford Tank Waste Operations Simulator (HTWOS) runs are complete; and resources spread evenly throughout the year, whereas more intensive resources are required in the 2nd and 3rd quarters to update BBI (transition the BBI Database to an in-house system and ESP licenses).

Impact: None.

**Corrective Action:** Vacancies are being filled (Resolution of PER WRPS-PER-2009-0617 will result in an additional chemical engineer charging to WBS 5.03.01.03.01 "Tank Waste Database Management" through the end of July). HTWOS run has been completed; contracts were awarded in April to support WFD Strategic initiatives.

## Milestone M-45,-50,-60 Single-Shell Tank Corrective Action

### I. Near-Term Deliverables:

- **M-45-56F, Complete Implementation of Agreed to Interim Measures**  
Due: 07/31/09  
Status: On Schedule. Four formal meetings with Ecology on outline and content of barrier priority and performance criteria have occurred. Draft document provided to Ecology for comment, Comments received on May 19, 2009. Responses have been drafted and reviewed with Ecology.
- **M-45-58, Submit to Ecology for review and approval as an Agreement primary document a Phase 2 Master Work Plan that describes the proposed approach for the completion of Corrective Action to meet Final Closure Requirements in the Waste Management Areas as described in Appendix I, Section 2.3**  
Due: 12/31/08  
Status: Complete. Report transmitted by ORP/Richland Operations Office (RL) to Ecology on December 23, 2008. Ecology comments are complete and were transmitted to ORP/RL the week of April 20, 2009. A response was transmitted to Ecology on May 19, 2009. The response outlined a plan for resolving comments through a series of workshops on SST System corrective actions and closure planning.
- **M-45-60, 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. Report transmitted by ORP/RL to Ecology on December 19, 2008. Ecology comments on the SAP and workplan are complete and were transmitted individually to ORP/RL the week of April 20, 2009. Responses have been prepared by ORP and will be transmitted to Ecology.
- **M-45-61, Submit to Ecology for review and approval as an Agreement primary document a Phase 2 RCRA Facility Investigation/Corrective Measures Study Report for WMA C**  
Due: 12/31/10  
Status: At Risk. See issues below.
- **M-45-62, Submit to Ecology for review and approval as an Agreement primary document a Phase 2 Corrective Measures Implementation Work Plan for WMA C**  
Due: 7/31/12  
Status: At Risk. See issues below.

**II. Significant Accomplishments:**

- T-Farm interim barrier monitoring continues.
- Continued direct push characterization in C Farm per the Phase 2 RFI/CMS work plan and SAP for WMA C.
- Initiated direct push characterization in SX Farm in support of Interim Barrier Design
- Continuing collection of surface-to-surface resistivity data in SX Farm.
- Initiated a 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.
- Initiated design efforts for Interim Surface Barrier at TY Farm.

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

- Report on results of C-Farm 3-Dimensional SGE Survey.
- Complete SGE data collection in SX-Farm.
- Initiate SGE data collection at two additional UPR sites in C Farm.
- Continue direct push campaigns in both SX and C farms.
- Complete the Interim Barrier Priority document.

**IV. Issues**

- The transmittal letter for M-45-50 (WMA C work plan and SAP) indicated that the scope of characterization activities identified in the plan could not be completed in time to support the currently scheduled dates for M-45-61 and M-45-62. Discussion of a change proposal will be initiated.
- There is no apparent maintenance plan for the ongoing maintenance of interim measures.

## **Milestone M-45-00, Complete Closure of All Single-Shell Tank Farms SST Retrieval and Closure Program**

### **I. Deliverables**

- **M-45-00, Complete Closure of all Single-Shell Tank Farms**  
Due: 9/30/24  
Status: To Be Missed (based on current DOE Baseline planning).
  
- **M-45-00B, Complete Specified "Near-Term" SST Waste Retrieval and Interim Closure Activities, to Result in the Retrieval of all Tank Wastes in WMA-C SSTs Pursuant to the Agreement Criteria in Milestone M-45-00**  
Due: 9/30/06 (Or as otherwise indicated within the descriptive text of this milestone.)  
Status: Missed.
  - Completion of four limits of technology retrieval demonstrations:
    - Saltcake dissolution (S-112): Completed (M-45-03C).
    - Modified sluicing (C-106): Completed.
    - Vacuum retrieval (C-200s): Completed; C-203 field retrieval operations completed on March 24, 2005; C-202 retrieval completed on August 11, 2005; C-201 retrieval completed on March 23, 2006; C-204 retrieval completed on December 11, 2006.
    - Mobile retrieval ( C-101, C-105, C-110 or C-111)): Not completed. C-101 start of retrieval is currently projected for FY 2011. (Note: C-110 has had retrieval commence using modified sluicing in compliance with a -C-111 will have retrieval performed using modified sluicing in compliance with a TWRWP to be submitted to Ecology.)
  
  - Implementation of full-scale leak detection monitoring and mitigation (LDMM) technologies for the first three 100-series tank retrievals following Tank S-112:
    - Tank S-102: High Resolution Resistivity System (HRR) installed; supporting retrieval operations.
    - Tank C-103: HRR demonstration complete.
    - Tank C-108: HRR installed; supporting retrieval operations.
    - Completed HRR injection tests at S-102.
    - Submitted HRR evaluation report and recommendation for further deployment.
  
  - Submittal of Tank Waste Retrieval Work Plans (TWRWP):
    - Tanks C-201, C-202, C-203, and C-204: Completed on April 8, 2004.
    - Two (2) 100-series tanks by July 31, 2004: Completed on July 29, 2004 (C-103 and C-109).
    - Four (4) 100-series tanks by 10/31/04: Completed on October 8, 2004 (C-102, C-104, C-107, C-108, and C-112).

- Five (5) 100-series tanks by January 31, 2005: Completed on January 24, 2005 (C-101, C-105, C-110, and C-111).
- **M-45-00C, Initiate Negotiation of SST Waste Retrieval and Closure Activities and Associated Schedules (for the period February 2007 through August 2008)**  
Due: 9/30/06  
Status: Missed.
- **M-45-00D, Initiate Negotiation of the SST Waste Retrieval and Closure Activities (for the period September 2008 to September 2013)**  
Due: 1/31/08  
Status: Missed.
- **M-45-00D-A, Ecology and DOE Negotiations Shall Be Completed within 150 days.**  
Due: 06/28/08  
Status: Missed
- **M-45-00E, Initiate Negotiation of SST Waste Retrieval and Closure Activities for the Remainder of the SST Program**  
Due: 10/31/12  
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-00E-A, Ecology and DOE Negotiations Shall Be Completed within 120 Days.**  
Due: 02/27/13
- **M-45-05, Retrieve Waste from all Remaining Single-Shell Tanks**  
Due: 9/30/18  
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-05-T05, Initiate Tank Retrieval from Five Additional Single-Shell Tanks**  
Due: 9/30/07  
Status: Missed.
- **M-45-05-T06, Initiate Tank Retrieval from Five Additional Single-Shell Tanks**  
Due: 9/30/08  
Status: Missed.
- **M-45-05-T07, Initiate Tank Retrieval from Seven Additional Single-Shell Tanks**  
Due: 9/30/09  
Status: To Be Missed (based on current DOE Baseline planning).

- **M-45-05-T08, Initiate Tank Retrieval from Eight Additional Single-Shell Tanks**  
Due: 9/30/10  
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-05-T09, Initiate Tank Retrieval from Ten Additional Single-Shell Tanks**  
Due: 9/30/11  
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-05-T10, Initiate Tank Retrieval from 12 Additional Single-Shell Tanks**  
Due: 9/30/12  
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-05-T11, Initiate Tank Retrieval from 14 Additional Single-Shell Tanks**  
Due: 9/30/13  
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-05-T12, Initiate Tank Retrieval from 17 Additional Single-Shell Tanks**  
Due: 9/30/14  
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-05-T13, Initiate Tank Retrieval from 20 Additional Single-Shell Tanks**  
Due: 9/30/15  
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-05-T14, Initiate Tank Retrieval from 20 Additional Single-Shell Tanks**  
Due: 9/30/16  
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-05-T15, Initiate Tank Retrieval from 20 Additional Single-Shell Tanks**  
Due: 9/30/17  
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-06, Complete Closure of all Single-Shell Tank Farms in Accordance with Approved Closure/Post Closure Plan(s)**  
Due: 9/30/24  
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-06-T03, Initiate Closure Actions on a WMA Basis**  
Due: 3/31/12  
Status: To Be Missed (based on current DOE Baseline planning).
- **M-45-06-T04, Complete Closure Actions on one WMA**  
Due: 3/31/14  
Status: To Be Missed (based on current DOE Baseline planning).

**II. Significant Accomplishments**

- Continued C-111 retrieval system design.
- Initiated procurement of long-lead equipment on C-111
- Removed legacy pump from 04A pit
- Installed sluicer assembly in 04A pit

**III. Significant Planned Activities in the Next Six Months**

- Continue design of retrieval system for Tank C-111.
- Complete construction activities at Tank C-104 and begin retrieval.

**IV. Issues**

- Milestones M-45-00B (retrieve all C Farm tanks), M-45-00C (initiate negotiations on SST retrievals for 2007-2008), and M-45-00D (initiate negotiations on SST retrievals for 2008-2013) were missed. TPA negotiations to address these and other milestones were halted when the State of Washington filed a lawsuit over the missed milestones.
- Ecology formally requested re-start dates for C-108, C-109, C-110, and S-102 in a letter dated October 13, 2008. Restart dates for these retrievals are in the process of being identified.

**C-FARM RETRIEVAL SUMMARY SCHEDULE FORECASTS <sup>a</sup>**

Tank	Final Design Drawings complete	Construction Complete	Process Control Plan Complete	Start Retrieval	Complete Retrieval	TSAP Complete	Retrieval Data Report or Appendix H to Ecology/EPA
C-101	TBD	TBD	TBD	TBD	TBD	TBD	TBD
C-102	1/14/11	10/13/11	12/9/12	1/9/12	11/20/12	10/20/12	11/18/13
C-103	Complete	Complete	Complete	Complete	Complete	Complete	Complete
C-104	7/22/09	7/23/09	7/22/09	9/25/09	2/18/10	1/18/10	1/20/11
C-105	5/2/12	6/5/13	7/30/13	8/30/13	3/6/14	2/6/14	12/4/14
C-106	Complete	Complete	Complete	Complete	Complete	Complete	Complete
C-107	3/21/14	12/19/14	2/26/15	3/26/15	12/18/15	11/18/15	4/26/17
C-108 <sup>c</sup>	Complete	Complete	Complete	Complete	TBD	TBD	TBD
C-109 <sup>od</sup>	Complete	Complete	Complete	Complete	TBD	TBD	TBD
C-110 <sup>b</sup>	Complete	Complete	Complete	Complete	Complete <sup>c</sup>	11/2/09	6/29/10
C-111	TBD	TBD	TBD	TBD	TBD	TBD	TBD
C-112	10/18/13	7/23/14	9/9/14	10/9/14	3/25/15	2/25/15	3/1/17
C-201	Complete	Complete	Complete	Complete	Complete	Complete	Complete
C-202	Complete	Complete	Complete	Complete	Complete	Complete	Complete
C-203	Complete	Complete	Complete	Complete	Complete	Complete	Complete
C-204	Complete	Complete	Complete	Complete	Complete	Complete	Complete

- a. Completion dates are based on the statused May month-end Integrated Mission Execution Schedule (IMES) as of 5/27/09 and are subject to change as efforts continue to identify and implement schedule efficiencies.
- b. Projected dates for C-110 are based on utilizing modified sluicing technology and availability of acceleration funding.
- c. Sluicing was performed to the limits of the sluicing system technology.
- d. Hard Heel Retrieval using MRT complete to limits of technology, not achieving less than 360 cu ft residual, awaiting future retrieval path forward.
- f. NOTE: For all tanks with a "TBD" in a column, dates will be identified for those "TBDs" following development of the PMB. The PMB will be based on the system plan, which will be approved by Ecology.

## SST RETRIEVAL SEQUENCE DOCUMENT

### I. Deliverables

- **M-45-02N, Submit Biennial Update of SST Retrieval Sequence Document (Agreement Appendix I, Section 2.1.2), and Double-Shell Tank Space Evaluation Document and Ecology Concurrence of Additional Tank Acquisition Within 60-days (see text of M-45-02N for further details)**  
Due: 3/1/08 (Parties to meet annually to agree on SSTs to be retrieved during the coming year from the tank pool.)  
Status: Complete.
  
- **M-45-02N-A, Embedded Milestone; Within 60 days of receiving the DST Space Evaluation Document, the Three Parties Shall meet to Establish New Milestones, If Required, for Acquisition of Additional Tanks**  
Due: 06/02/08  
Status: Complete. On May 15, 2008, Ecology transmitted comments on the M45-02N deliverable. On July 23, 2008, ORP transmitted letter 08-TF-049 to Ecology with a plan for responding to Ecology comments on and updating the Retrieval Sequence Document (RPP-21216). The revised document was submitted to Ecology on September 12, 2008, by letter 08-TF-062. Ecology approved the document on January 22, 2009, by letter 0900343.
  
- **M-45-02O, Submit Biennial Update of SST Retrieval Sequence Document (Agreement Appendix I, Section 2.1.2), and Double-Shell Tank Space Evaluation Document and Ecology Concurrence of Additional Tank Acquisition Within 60-days (see text of M-45-02M for further details)**  
Due: 3/1/10 (Parties to meet annually to agree on SSTs to be retrieved during the coming year from the tank pool.)  
Status: On schedule. Ecology has requested the Parties meet to discuss the methodology and contents of the next biennial update.
  
- **M-45-02O-A, 3 Parties Shall Meet To Establish New Milestones Within 60 Days**  
Due: 04/30/10  
Status: On Schedule.
  
- **M-45-02P, Submit Biennial Update of SST Retrieval Sequence Document (Agreement Appendix I, Section 2.1.2), and Double-Shell Tank Space Evaluation Document and Ecology Concurrence of Additional Tank Acquisition Within 60-days (see text of M-45-02M for further details)**  
Due: 3/1/12 (Biennially thereafter. Parties to meet annually to agree on SSTs to be retrieved during the coming year from the tank pool.)  
Status: On schedule.

- **M-45-02P-A, Embedded Milestone; Within 60 days of receiving the DST Space Evaluation Document, the Three Parties Shall meet to Establish New Milestones, If Required, for Acquisition of Additional Tanks**  
Due: 4/30/12  
Status: On schedule.
- **M-45-02Q, Submit Biennial Update to SST Retrieval Sequence Document**  
Due: 03/01/14  
Status: On Schedule
- **M-45-02Q-A, 3 Parties Shall Meet to Establish New Milestones Within 60 Days**  
Due: 04/30/14  
Status: On Schedule
- **M-045-02R, Submit Biennial Update to SST Retrieval Sequence Document**  
Due: 03/01/16  
Status: On Schedule
- **M-045-02R-A, 3 Parties Shall Meet to Establish New Milestones Within 60 Days**  
Due: 04/30/16  
Status: On Schedule
- **M-45-02S, Submit Biennial Update to SST Retrieval Sequence Document**  
Due: 03/01/18  
Status: On Schedule
- **M-45-02S-A, 3 Parties Shall Meet to Establish New Milestones Within 60 Days**  
Due: 04/30/18  
Status: On Schedule

## II. Significant Accomplishments

None.

## III. Significant Planned Activities in the Next Six Months

- None.

## IV. Issues

- None.

## **TANK RETRIEVALS WITH INDIVIDUAL MILESTONES**

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

#### **I. Deliverables**

- **M-45-05M-T01, Submit C-106 Waste Retrieval Results, Analysis of Residual Waste(s), and (if appropriate) Request for Exception to the Criteria Pursuant to Agreement Appendix H**

Due: 2/27/04

Status: Complete.

#### **II. Significant Accomplishments**

- None.

#### **III. Significant Planned Activities (PA) 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.

#### **IV. 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 2010.

### **Tank 241-S-102**

#### **I. Deliverables**

- **M-45-05A, Complete Waste Retrieval from Tank S-102**

Due: 3/31/07

Status: Missed. As a result of equipment failure on March 14, 2007, retrieval operations were suspended at Tank S-102 with retrieval approximately 91% complete and approximately 423,000 gallons total waste removed. Retrieval was restarted on July 25, 2007 and halted on July 26, 2007 when an aboveground waste spill occurred. Retrieval is estimated to be approximately 93.3% complete with 433,000 gallons of total waste removed.

- **M-45-15, Interim Completion of Tank S-102 SST Waste Retrieval and Closure Demonstration Project**

Due: 6/30/11

Status: On Schedule. Change Request M-45-07-01 approved by DOE and Ecology on December 4, 2007.

- **M-45-15A, Embedded Milestone, Submit a Retrieval Data Report Pursuant to Agreement Appendix I**  
Due: 6/30/11  
Status: On schedule.
- **M-45-15B, 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: On schedule.
- **M-45-15C, Embedded Milestone, An update to the S-102 Component Closure Activity Plan has been submitted by DOE**  
Due: 6/30/11  
Status: On schedule.
- **M-45-15D, Embedded Milestone, if appropriate, DOE has requested an exception to waste retrieval criteria pursuant to Agreement Appendix H**  
Due: 6/30/11  
Status: On schedule.

## II. Significant Accomplishments

- Restarted S-102 exhauster to reduce the volume of supernatant liquid in the tank.

## III. Significant Planned Activities in the Next Six Months

- Continue to operate the S-102 exhauster.

## IV. Issues

- Retrieval of Tank 241-S-102 was not completed by TPA milestone date of March 31, 2007, due to pump failure.

## Tank 241-S-112

### I. Deliverables

- **M-45-03C, Complete Full-Scale Saltcake Waste Retrieval Technology Demonstration at Single-Shell Tank S-112**  
Due: 6/30/05  
Status: Complete.

- **M-45-13, Interim Completion of Tank S-112 SST Waste Retrieval and Closure Demonstration Project**  
Due: 6/30/11  
Status: On Schedule. Change Request M-45-07-01 approved by DOE and Ecology on December 4, 2007.
  
- **M-45-13A, Embedded Milestone, Submit a Retrieval Data Report Pursuant to Agreement Appendix I**  
Due: 12/31/07  
Status: Completed (ORP letter, 07-TPD-066, dated December 21, 2007). Added by Change Request M-45-07-01 approved by DOE and Ecology on December 4, 2007.
  
- **M-45-13B, Embedded Milestone, Remaining Wastes have been adequately Characterized, and a Risk Assessment has been completed for residuals that remain in the tank**  
Due: 12/31/07  
Status: Completed (ORP letter, 07-TPD-066, dated December 21, 2007). Added by Change Request M-45-07-01 approved by DOE and Ecology on December 4, 2007.
  
- **M-45-13C, Embedded Milestone, An update to the S-112 Component Closure Activity Plan has been submitted by DOE**  
Due: 6/30/11  
Status: On schedule.
  
- **M-45-13D, Embedded Milestone, if appropriate, DOE has requested an exception to waste retrieval criteria pursuant to Agreement Appendix H**  
Due: 6/30/11  
Status: On schedule.

## II. Significant Accomplishments

- Ecology letter of August 28, 2008, concurred with ORP that retrieval of Tank S-112 is complete.

## III. Significant Planned Activities in the Next Six Months

- None.

## IV. Issues

- None.

## Interim Stabilization Consent Decree

### I. Near-Term Deliverables:

#### **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 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 video taken in S-102 in November 2008 indicates the tank supernatant liquid probably exceeds the 5,000 gallons maximum for a tank to meet IS criteria.

### II. Significant Accomplishments:

- Restarted S-102 exhauster to reduce the volume of supernatant liquid in the tank.

### III. Significant Planned Actions in the Next 6 Months:

- Continue to operate the S-102 exhauster.

### IV. Issues

Tank S-102 retrieval not completed by milestone M-45-05A date of March 31, 2007.

## In Tank Characterization and Summary

For the period from May 1 – May 31, 2009:

### I. Accomplishments:

- Completed pre caustic addition grab sampling of tank 241-AN-106 on May 8, 2009.
- Completed RPP-PLAN-40837, *Tank 241* on April 29, 2009.
- Completed laboratory data package RPP-RPT-40709, *Final Report for Tank 241-AW-106 Liquid Grab Samples in Support of Evaporator Campaigns for Fiscal Year 2009*, on May 19 2009.
- Completed laboratory data package letter report 20090322, *Format II Report for Tank 241-AN-106 Liquid Grab Samples Collected in May 2009 in Support of the Tank Farms Recovery Plan TF-RP-09-01*, on May 20 2009.
- Completed laboratory data package RPP-RPT-41286, *Final Report for 244-CR-Vault Cell Liquid Grab Samples in Support of the Tank Farms Waste Transfer Compatibility Program* on May 19, 2009.

### II. Planned Action within the next Six Months:

- Tank Sampling
  - Tank 241-AZ-102 liquid grab samples scheduled for June 2009.
  - Tank 241-AP-107 liquid grab samples scheduled for September 2009.
  - Tank 241-AY-101 liquid grab samples scheduled for August 2009.
  - Tank 241-AN-101 mid C-104 retrieval samples scheduled for August 2009.
  - Tank 241-AN-106 liquid grab samples for post caustic addition scheduled for June 2009.
  - Tank 241-C-108 solid samples for retrieval data scheduled for July 2009.
  - Tank 241-AN-102 corrosion mitigation samples scheduled for September 2009.
- BBI Updates
  - Seven tank updates were planned for the third quarter of FY 2009.
    - ◆ One of the seven was postponed to next quarter because the data was not received in time to include in the third quarter
    - ◆ Two of the six updates have been completed
    - ◆ Four of the six updates are underway
  - In addition, OH<sup>-</sup> concentrations are being added for all waste types in every tank where the data are missing.
- Data Quality Objectives (DQO)
  - Complete SST Component Closure DQO, Rev. 4 in June 2009.
  - Complete Evaporator DQO Rev. 7 in August 2009.

**III. Issues:**

- None.

## **Milestone M-47-00, Complete Work Necessary to Support Acquisition and Phase I Operations of Hanford Site High-Level Radioactive Waste Treatment, Storage, and Disposal Facilities**

### **I. Near-Term Deliverables:**

- **M-47-03A, Complete startup and turnover activities for waste retrieval and mobilization systems for selected initial high-level waste feed tank**  
Due: 03/31/09  
Status: Missed.
- **M-47-06, Complete negotiation of additional agreement requirements (milestones, target dates, and associated language) governing work necessary to support completion of treatment complex Phase I operations by 2018**  
Due: 06/30/10  
Status: Negotiations are not yet underway.

### **II. Significant Accomplishments:**

- None.

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

- None.

### **IV. Near-term Actions Needed by DOE or Ecology:**

- None.

### **V. Issues:**

- Nothing to report.

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

### EVAPORATOR CAMPAIGNS

Fiscal Year	Campaign No.	Feed Source	Slurry Tank	Comments
FY09	09-01	AP-101/AP-105	AP-104	Previously planned as 08-01, this campaign will be performed "back-to-back" with Campaign 09-02 in March/April/May/June 2009.
FY09	09-02	AP-101/AP-105	AP-104/ AP-101	Previously planned as 08-02, this campaign will be performed "back-to-back" with Campaign 09-01 in March/April/May/June 2009.
FY10	10-01	AW-106	AP-104	Detailed planning for FY10 and outyear campaigns subject to retrieval activities and Tank Operations Contractor commitments and requirements. Forecast FY10-11 campaigns are based on preliminary planning associated with blending AZ-102.
FY10	10-02	AP-107	AP-104/ AP-107	
FY11	11-01	AZ-102	AP-107	
FY11	11-02	AY-101	AP-017	

**Milestone M-90-00, Complete Acquisition of New Facilities, Modifications of Existing facilities, and/or Modifications of Planned Facilities, as Necessary for Storage of Hanford Site Immobilized High Level Waste (IHLW), Immobilized Low Activity Waste (ILAW), and Disposal of ILAW, and M-20-00, Submit Part B Permit Applications**

**I. Near-Term Deliverables:**

- **M-90-10, Ready to Accept Placement of ILAW Waste in ILAW Disposal Facility**

Due: 8/31/08

Status: Complete.

- **M-90-11, Complete Canister Storage Facility Construction**

Due: 8/31/10

Status: To Be Missed. To be renegotiated to align with WTP schedule.

**II. Significant Accomplishments:**

- None to report.

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

- None to report.

**IV. Issues**

- None to report.

## Milestone M-62-00, Complete Pretreatment Processing and Vitrification of Hanford High-Level (HLW) and Low-Activity (LAW) Tank Wastes

### I. Near-Term Deliverables:

- **M-62-00, Complete Pretreatment Processing and Vitrification of Hanford High-Level (HLW) and Low-Activity (LAW) Tank Wastes**  
Due: 12/31/2028  
Status: To Be Missed.
  
- **M-62-00A, Complete WTP Pretreatment Processing and Vitrification of Hanford HLW and LAW Tank Wastes**  
Due: 02/28/2018  
Status: To Be Missed.
  
- **M-62-01R, Submit Semi-Annual Project Compliance Report**  
Due: 01/31/2009  
Status: Complete.
  
- **M-62-01S, Submit Semi-Annual Project Compliance Report**  
Due: 07/31/2009  
Status: On Schedule.
  
- **M-62-07B, Complete Assembly of Low Activity Waste Vitrification Facility Melter #1 So That It Is Ready for Transport and Installation in the LAW Vitrification Building (BNI Baseline Schedule Activity 4DL321A200 as Part of DOE Contract No. DEAC27-01RV14136), and Complete Schedule Activity ID 4DH46102A2 – Move #1 Melter into the High Level Waste Vitrification Facility**  
Due: 12/31/2007  
Status: Missed.
  
- **M-62-08, Submittal of Hanford Tank Waste Supplement Treatment Technologies Report, Draft Hanford Tank Waste Treatment Baseline and Draft Negotiations Agreement in Principle**  
Due: 06/30/2006  
Status: Missed.
  
- **M-62-09, Start Cold Commissioning – Waste Treatment Plant**  
Due: 02/28/2009  
Status: To Be Missed (based on current DOE Baseline planning).

- **M-62-10, Complete Hot Commissioning – Waste Treatment Plant**  
Due: 01/31/2011  
Status: To Be Missed (based on current DOE Baseline planning).
- **M-62-11, Submit a Final Hanford Tank Waste Treatment Baseline**  
Due: 06/30/2007  
Status: Missed.

**II. Significant Accomplishments:**

- None to report.

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

- The Early LAW initiative is currently on hold, pending further funding for FY 2009. Should funding be made available, planned work scope will include Research and Development (R&D) testing of an in-tank alternative and a review of several configurations; i.e., vault system, in-tank system.

**IV. Issues:**

- None.

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

There are about 3,025 personnel working on the WTP Project, with about 1,450 people working at the WTP construction site (all facilities): 840 manual, 400 non-manual, and 210 subcontractor personnel. Overall project percent complete through April 2009 is 48%, design and engineering is 73% complete, and construction is 43% complete.

WTP project cost and schedule performance continues to be positive for both the engineering and construction disciplines since January. Vessel and equipment design and procurement is an area that continues to need improvement. The following areas are under evaluation for opportunities to reduce design complexities.

### Material at Risk (MAR)

The Material at Risk (MAR) update for the WTP is being implemented by the contractor by submitting a Preliminary Safety Documented Safety Analysis (PDSA) Addendum initially for the Pretreatment (PT) Facility followed by the High Level Waste Facility. Final approval of an addendum to the PDSA is forecasted to be by June 30. On May 19<sup>th</sup> and 20<sup>th</sup>, members of the EM Technical Authority Board, including ORP's Site Technical Authority (STA), conducted a Technical Authority Review (TAR) of the bases and concept of the PDSA Addendum for PT. Preliminary results indicate a sound technical argument for the MAR update exists to support reclassifying Safety Class (SC) systems, structures and components (SSC) to safety significant (SS) SSC. The TAR will provide recommendations for ORP and WTP contractor to consider strengthening the documentation of the technical bases including the contractor's Safety Input Review Committee (SIRC) process and ORP process for review and approval of authorization basis documents. The TAR report is expected to be issued in June.

### Hydrogen in Piping and Ancillary Vessels (HPAV)

Based on recommendations by the HPAV team chartered in February 2009, ORP and BNI are evaluating team recommendations that could result in removing unnecessary complexity in the control strategy while still maintaining safety commensurate to the risk. Much progress has been made in understanding the new information gained from recent testing supporting the HPAV effort, including the conclusion that strains greater than yield are acceptable, as provided by ASME Code guidance, for events (loads) that are demonstrated to have sufficiently low frequency of occurrence. The DNFSB staff was briefed on April 15-16, 2009. Since then

additional testing to evaluate the impact of HPAV for piping size larger than 4 in are being performed. However, progress in this area is slow due to priority been given to the approval and implementation of more likely MAR reductions.

#### DOE-STD-1066

ORP is pursuing compliance with DOE-STD-1066, Section 14, Nuclear Filter Plenum Fire Protection, using the alternate approach permitted by the standard. The alternate approach will demonstrate a comparable level of safety to that achieved by verbatim compliance with the Section 14 requirements. A ventilation system evaluation and gap analysis between DOE-STD-1066-97, Section 14 and WTP design submitted by the Contractor is being reviewed by ORP. Once reviewed, ORP will request concurrence from the DOE EM Program Secretarial Officer (PSO) accepting the alternate approach, including gaps, as acceptable. The WTP Contractor submitted a draft Authorization Basis Amendment Request (ABAR) for revising the Safety Requirements Document and Preliminary Documented Safety Analysis to incorporate the alternate approach. ORP approval of the ABAR is forecasted for June 30, 2009.

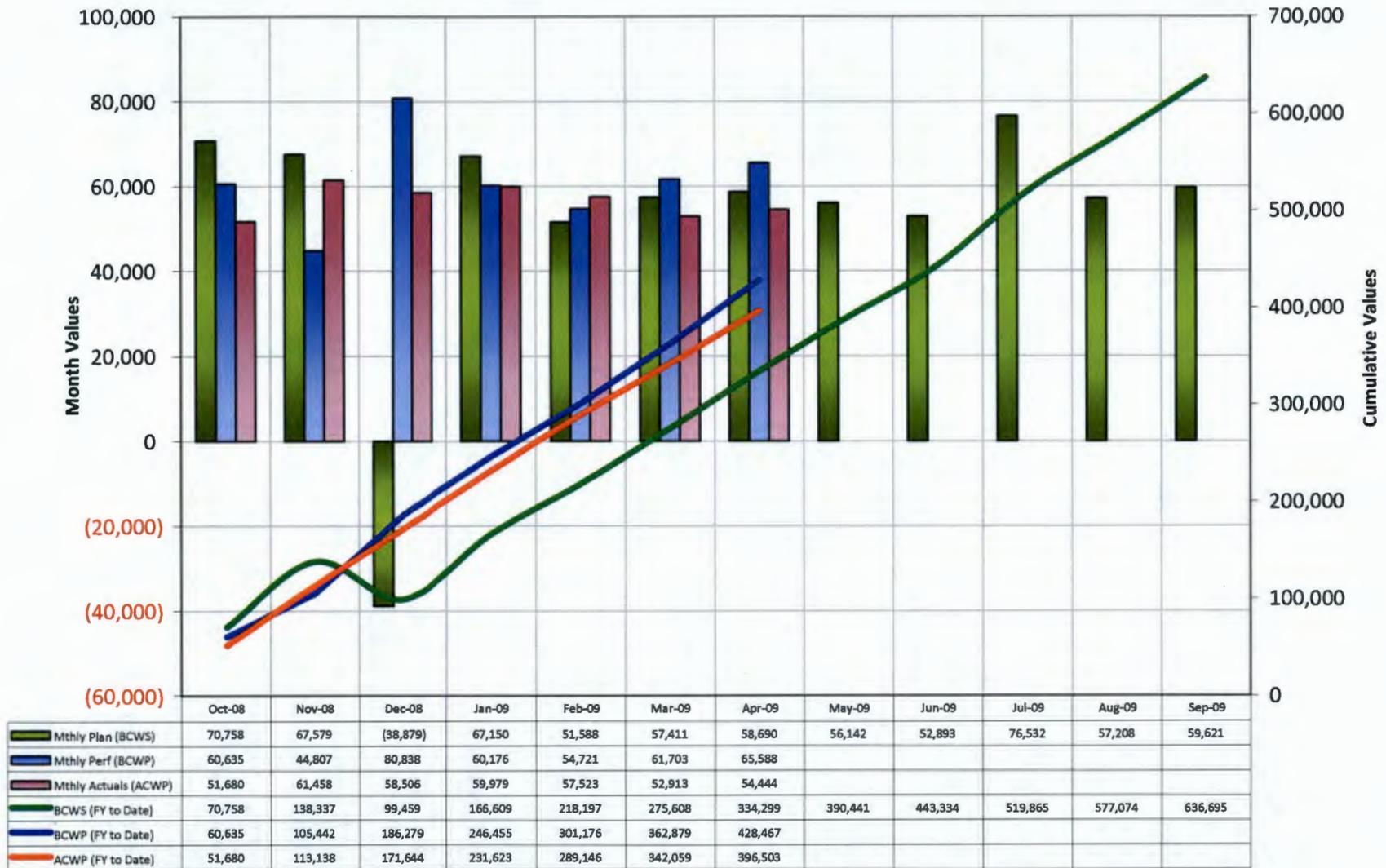
#### Broad Based Review (BBR)

Closure of corrective action reports (PIERs & CRPTs) for BBR issues have continued. BNI completed a management assessment of BBR issue closure in May 2009. The assessment documented the overall process of closing issues has been acceptable. In most cases the categorization of issues has remained unchanged. A few of issues were re-categorized based on detail determined in working toward closure of the issues. Currently approximately half of the BBR identified issues have been closed. ORP continues to review closure reports for issues.

#### Recent issues

On April 30, ORP was informed by BNI of some corrosion identified on piping for Plant Service Air (PSA) during excavation around it. ORP has directed BNI to perform an investigation for the reason and extent (details in the BOF report). Currently two of eleven planned sections of buried piping have been excavated and inspected. No corrosion found on those piping.

### WTP – Fiscal Year To-Date Performance



**Pretreatment (PT) for May 2009 (April 2009 EVM Data)**

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 43%, engineering/design is 73% complete, and construction is 29% complete.

Construction installations for the month included: 700yd<sup>3</sup> of concrete, 107 tons of rebar, 40,000 lbs of embeds and over 65 tons of tier -3 structural steel.

Construction forces at the +56 elevation placed concrete for two walls 4-33 and 4-37 and four slabs 5629, 5610, 5648 and 5618. They are continuing to install tier-3 structural steel. Metal decking is being installed at the north and west corridor at the +77 elevation. Ongoing fabrication and installation of temporary platforms is continuing for planning areas 11E, 11W, 13E, 3 and 4W. At the + 28 crews continue to apply surface coatings to walls. Crews at the 0' elevation continue; installing liners, applying surface coatings to the hot cell walls, fabricating rebar curtains; building scaffolding; welding piping in black cells At the -21' elevation, pipefitter work continues on drain plant wash down tanks.

Over 400 piping isometric drawings were issued this month. Procurement specification for the cesium ion exchange (CIX) column has been issued. General Arrangement drawings for the PT Control building have been issued for review. P&IDs for UFP systems have been redlined to demonstrate that significant reduction in piping, valves, instrumentation and bulges that could be achieved based on the potential MAR and HPAV changes. The ABAR approval is forecasted to be complete in June.

A number of technical issues are being worked on by BNI in conjunction with DOE. Vessels have been categorized in four groups to resolve EFRT issue of vessel mixing, M3. Of which, the first two groups of vessels have been accepted by DOE confirming the mixing capability. Closure of the third group is undergoing comment resolution. Details of the second phase of vessel mixing testing and CFD analyses have been developed to resolve EFRT issue for the fourth group of vessels. Fabrication of the test stand for the phase 2 testing has been completed and undergoing start-up testing prior to the simulant tests. Simulant test has been delayed to start in July due to the start-up tests and equipment repairs taking longer. Additionally, detailed preparation to perform a number of tests to determine parameters of mixing for various particle sizes at the Washington State University is ongoing. EFRT review

members have noted that some of the non-Newtonian vessels, accepted through large-scale testing earlier, could potentially have Newtonian fluid, which needs additional evaluations for the validation of mixing. The cesium nitric acid recovery process (CNP) and cesium ion exchange process (CXP) systems are being evaluated for the resolution of operability and maintainability issues that include solids precipitation and corrosion evaluations. BNI plans to identify all design changes by June 2009.

Pretreatment Facility - Fiscal Year To-Date Performance



## High-Level Waste (HLW) Facility

The HLW Facility will receive the high-level waste fraction from the Pretreatment (PT) Facility. The waste will be mixed with glass formers, converted to glass, and placed in stainless steel canisters that will initially be stored in the Hanford onsite Canister Storage Building. Final disposition is proposed to be at a national geologic repository. HLW engineering/design and construction completions are 78% and 24%, respectively. Overall, facility completion is 44%.

Implementation of the Workable Backlog Program (WBP) plan is continuing. The WBP strategy is to establish a rolling six-month backlog of materials and approved construction work packages prior to hiring additional craft in FY 2009, fourth quarter (Q4). Having a 6-month backlog will stabilize construction resource loading and reduce the impacts caused by late design changes and unavailable materials. Construction will lag behind the baseline schedule until the backlog is established and then accelerate, with additional craft, to regain lost schedule. The schedule baseline "lag/gap" will be corrected by February 2010. In December 2008, the Concrete Backlog accounted for less than two weeks (less than 10,000 man-hours) of field work. With the increased Project Management focus on improving these levels, the backlog has grown from over one month in January to nearly five months in May.

Efforts to establish a six-month workable backlog have been limited by offset wall penetration (i.e., "joggle") availability. The WTP Contractor has developed metrics to improve status visibility of joggles and other potential impacts by providing early warnings, and mitigating potential future delays. In addition, the team has implemented a detailed schedule review process to monitor future design and procurement processes. Working with the joggle vendor, fabrication and shipment sequences have been established and are supporting construction priorities with the deliveries beginning in April. Two hundred and eighty (280) joggles have begun to be shipped, with receipt completing in May to June, releasing six critical shield walls to construction and considerably improving workable backlog levels. Engineering release of design for the next grouping of joggles was completed ahead of schedule. The engineering design releases for the remaining EL 14'-37' joggles, required for next year's wall placements, are expected to be completed by the end of this calendar year.

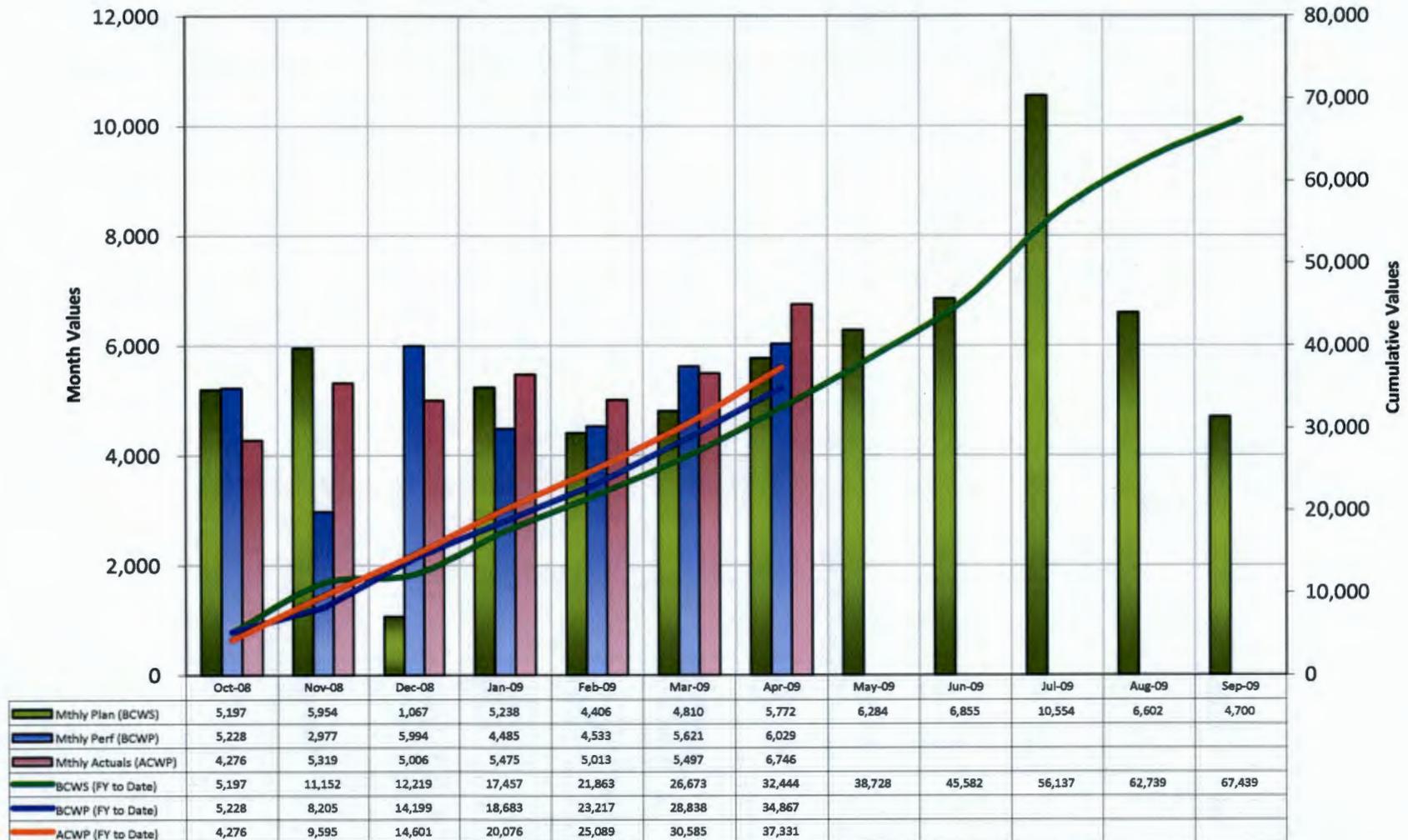
Engineering completed model reviews of the Demineralized Water System and HLW construction planning area 7B, the Melter 2 Wet Electrostatic Precipitator (WESP) Area. Other

engineering activities for this period include: issuance of rebar and steel calculations; release of system logic diagrams; development of calculations and issuance of data sheets for instruments and valves; and issuance of piping 146 isometric drawings totaling over 5,000 lineal feet of piping to construction.

Major Plant equipment items for May included the issuance of RGM modification design drawings to the melter vendor and the procurement award of the Thermal Catalytic Oxidizer (TCO).

Construction forces placed 845 cubic yards (CY) of concrete for wall 1134 in the central building area, a slab 1014 in the north central area of 0' elevation, and slabs 2007, 2013 and 2013A all at the +14' elevation. At the -21' elevation, crews continue to work on ducting; install structural steel, conduit, and cable tray supports; and apply coatings as required. At the 0' elevation, crews continue to install wall and slab rebar, embeds, and commodities at the east end; decking, ledger, and structural steel and supports; liner plate and a door liner in pour tunnel #2 (bogie maintenance room). Crews at the +14' elevation continue installing rebar, embeds, forms, and decking in the west and central areas of the facility. Notable this month was the completion individual placements and cubic yardage that exceeded the requirements of the BNI Internal Replan baseline schedule.

### High-Level Waste Facility - Fiscal Year To-Date Performance



## **Low-Activity Waste (LAW) Facility**

The LAW Facility will vitrify low-activity waste from the PT Facility. Waste will be mixed with glass formers, vitrified into glass at an average daily rate of 30 metric tons, and placed in stainless-steel containers that will be disposed on site in the Integrated Disposal Facility. Overall facility percent complete is 66%, design is 89%, and construction is 60%.

Significant equipment deliveries in April include the second glass former mixed and the melter offgas spool (batch 1).

Construction forces completed installing the west crane maintenance platform, aligning pumps for the LAW secondary offgas/vessel vent process, setting the melter rails, installing 550 linear feet of process piping, and installing the elevator steel door support. Engineering issued 32 piping isometrics and 66 system logic diagrams.

Currently ORP is working with BNI to resolve the technical issues surrounding the LAW Offgas System. The exit temperature from the exhausters is excessive for carbon bed operating temperatures. This will be resolved by moving the carbon beds upstream of the exhauster. Many actions have been completed to identify and resolve the chemical hazards in the LAW secondary offgas system including: leakage rate calculations and an operability assessment. BNI will have a recommended solution to these concerns in July.

Low-Activity Waste Facility - Fiscal Year To-Date Performance



	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09
Mthly Plan (BCWS)	7,401	7,152	(34,410)	5,207	6,668	3,069	5,321	4,481	3,234	5,761	3,520	7,899
Mthly Perf (BCWP)	3,231	2,302	7,418	2,214	3,766	3,582	5,724					
Mthly Actuals (ACWP)	3,770	4,824	6,093	5,417	3,456	2,750	5,405					
BCWS (FY to Date)	7,401	14,552	(19,858)	(14,652)	(7,983)	(4,914)	407	4,888	8,122	13,883	17,403	25,302
BCWP (FY to Date)	3,231	5,533	12,950	15,164	18,931	22,512	28,236					
ACWP (FY to Date)	3,770	8,594	14,687	20,105	23,560	26,310	31,715					

## **Analytical Laboratory (LAB)**

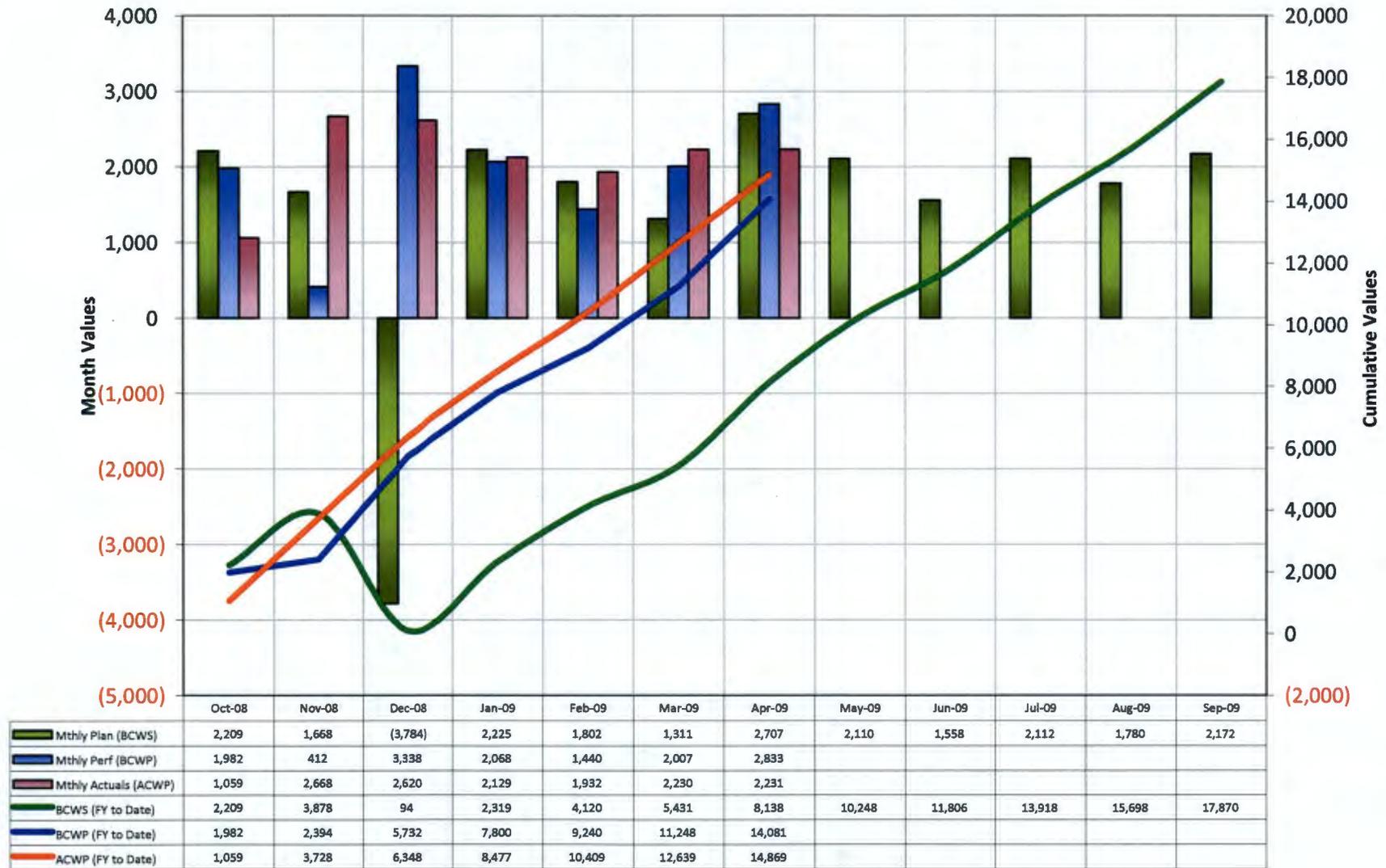
The LAB will support WTP operations by analyzing feed, vitrified waste, and effluent streams. Overall facility complete for LAB is 43%, design is 76%, and construction is 55%.

BNI is substantially complete with the engineering design; however, there are some vendor designs of various components that are still outstanding. BNI formally notified ORP they had completed the following fee milestone: LAB Title 2 Design Complete. This is the first fee milestone to be completed under the new contract. ORP conducted an assessment the week of May 4-8 and approved milestone completion. Engineering issued confirmed calculations for the miscellaneous gases system (MXG) and the low-pressure steam system (LPS).

At the 0' elevation, pipefitters continued to install pipe and hangers in the south section of the building. West of the hot-cell electricians are installing cable tray and conduit for lighting, in other locations they are installing conduit for fire detection/communications and outside the west side of the building lighting transformers were staged on concrete slabs at their installation locations. Throughout the facility, subcontractors continued to install framing and drywall. At the +17' elevation, pipefitters continued to install chill water piping and steam piping/hangers for the steam system.

The Automatic Sampling System (ASX) is a critical system that samples waste from PT, HLW and LAW then transports these through a pneumatic transfer system to the LAB. The HLW and PT samples enter into a receipt station inside of the hot cells. The LAW samples are received in the radioactive laboratory. The design of the LAB components for the ASX are forecast for completion by the end of this fiscal year.

### Analytical Laboratory - Fiscal Year To-Date Performance



## Balance of Facilities (BOF)

BOF provides services and utilities to support operation of the main production facilities – PT, HLW, LAW, and LAB. Overall facility percent complete for BOF is 51%, design/engineering is 73%, and construction is 62%.

Major accomplishments include: backfilling grounding around the nonradioactive liquid waste disposal system skid, issued the electrical design for the Anhydrous Ammonia facility and issued 38 piping isometrics

ORP is currently working with BNI on issues surrounding the Melter Assembly Building, Emergency Diesel Generators, and Electrical Load growth. A value engineering study was performed for recommendations for a melter assembly building and recommendations are currently being considered.

Discussions are taking place with RL, BNI, ORP and Fluor concerning electrical load growth through the Interface Control process to define electrical load requirements and available power for the WTP site. ORP is also working with BNI to define the appropriate scope for the emergency diesel generators and their support systems prior to procurement.

On April 30th, 2009, BNI identified external defects to an 18-inch Plant Service Air line. This particular carbon steel pipe is coated with a fusion bonded epoxy and appears to have previously sustained mechanical damage during backfill operations and over time became subject to corrosive mechanisms. This Plant Service Air line was installed in late 2002. The pipe is designed to have Cathodic Protection as a method to mitigate corrosion. Energization of the Cathodic Protection system did not occur until February of 2009. Difficulties in system balancing activities have resulted in a delay to proper operation of the Cathodic Protection system. Overall, 67 defects were identified on the excavated section of Plant Service Air piping. Based on the identified defects, ORP sent a letter requesting BNI's plan to evaluate the extent of the underground piping corrosion.

Balance of Facilities - Fiscal Year To-Date Performance



	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09
Mthly Plan (BCWS)	5,028	2,328	(15,375)	1,546	870	1,176	992	1,073	1,417	2,295	1,355	1,838
Mthly Perf (BCWP)	1,037	1,512	3,022	1,535	866	1,362	1,121					
Mthly Actuals (ACWP)	1,264	1,697	2,331	1,318	1,167	1,017	1,162					
BCWS (FY to Date)	5,028	7,355	(8,020)	(6,474)	(5,604)	(4,428)	(3,435)	(2,363)	(945)	1,349	2,705	4,542
BCWP (FY to Date)	1,037	2,549	5,571	7,105	7,971	9,333	10,455					
ACWP (FY to Date)	1,264	2,961	5,292	6,610	7,777	8,794	9,956					

**Waste Treatment Plant Project - Percent Complete Status  
Through April 2009**

(Dollars - Millions)	Overall Facility Percent Complete Allocated Dollars			Design/Engineering Unallocated Dollars			Construction Unallocated Dollars		
	Budget at Completion (BAC)	Budgeted Cost of Work Performed (BCWP)	% Complete	Budget at Completion (BAC)	Budgeted Cost of Work Performed (BCWP)	% Complete	Budget at Completion (BAC)	Budgeted Cost of Work Performed (BCWP)	% Complete
<b>Facilities</b>									
Low-Activity Waste	1,631.4	1,068.8	66%	205.2	182.2	89%	248.8	150.5	60%
Analytical Lab	624.4	270.3	43%	48.6	36.8	76%	71.0	39.0	55%
Balance of Facilities	967.5	491.5	51%	69.3	50.3	73%	185.4	114.6	62%
High-Level Waste	2,578.8	1,135.4	44%	313.2	245.8	78%	432.3	102.1	24%
Pretreatment	4,121.2	1,785.2	43%	568.6	414.6	73%	708.1	203.0	29%
Plant Wide/Gen Services	incl. above	incl. above	incl. above	1,049.1	726.1	69%	1,623.8	808.8	50%
Undistributed Budget	7.9	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Total WTP</b>	<b>9,931.2</b>	<b>4,751.2</b>	<b>48%</b>	<b>2,254.0</b>	<b>1,655.8</b>	<b>73%</b>	<b>3,269.4</b>	<b>1,418.0</b>	<b>43%</b>

Source: WTP Contract Performance Report

Note: Beginning with the February 2009 status report, Design/Engineering dollars now include, in addition to Engineering dollars, dollars for Research and Testing (R&T), Process Engineering, and Environmental & Nuclear Safety (E&NS).

<b>WTP Project - KEY COMMODITY QUANTITY PROGRESS</b>				
<b>Commodity</b>	<b>Unit of Measure</b>	<b>Current Forecast at Completion Quantity</b>	<b>Installed through April 2009</b>	<b>Percent Complete</b>
Concrete	1000 cy	262.30	184.97	70.5%
Structural Steel	1 ton	39,427	13,605	34.5%
Piping (in buildings)	1000 lf	920.86	151.42	16.4%
Piping (underground)	1000 lf	116.01	95.40	82.2%
HVAC Duct	1000 lbs	4,290.21	952.38	22.2%
Cable Tray	1000 lf	98.13	19.74	20.1%
Conduit (in buildings)	1000 lf	929.10	102.12	11.0%
Conduit (underground)	1000 lf	193.11	176.16	91.2%
Cable and Wire	1000 lf	4,902.33	248.17	5.1%