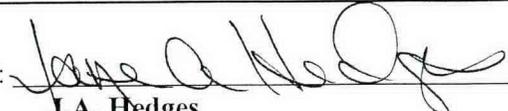
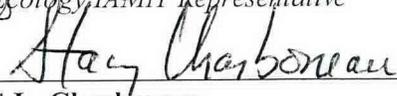
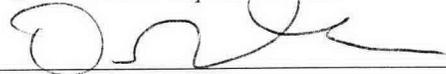
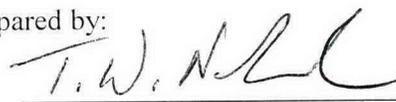


**Office of River Protection
Tri-Party Agreement Milestone Review
Meeting Minutes
November 19, 2009**

Approval:  Date: 12/10/09
J.A. Hedges
Ecology IAMIT Representative

Approval:  Date: 12/17/09
S.L. Charboneau
DOE IAMIT Representative

Approval:  Date: 12/10/09
D.A. Faulk
EPA IAMIT Representative

Minutes Prepared by:  Date: 12/17/09
T.W. Noland
Mission Support Alliance

- | | | | |
|-------------------|---------|-----------------------|---------|
| Abdul, W.* | ORP | Lober, R.W. | ORP |
| Barnes, M.W.* | Ecology | Long, J.D.* | ORP |
| Bohnee, G. | NPT | Luke, J.J.* | WRPS |
| Brown, M.J. | Ecology | Lynch, J.J. | ORP |
| Burandt, M.E. | ORP | Lyon, J.J.* | Ecology |
| Caggiano, J.A. | Ecology | McDonald, D.* | Ecology |
| Cameron, C.E. | EPA | Niles, K. | OOE |
| Charboneau, S.L.* | ORP | Noland, T.W.* | FFS |
| Cimon, S.* | ODE | Noyes, D.L. | ORP |
| Dahl, S.L. | Ecology | Olinger, S.J. | ORP |
| Diediker, J.A.* | ORP | Olsen, G.B.* | ORP |
| Dixon, W.T. | WRPS | Pfeiffer, S.H. | ORP |
| Eberlein, S.J. | WRPS | Pope, J.P. | Ecology |
| Elsethagen, K.A. | Ecology | Reed, D.R. | ORP |
| Faulk, D.A.* | EPA | Russell, K.W.* | ORP |
| Fort, L.A. | Ecology | Skinner, R.R. | Ecology |
| Furlong, P.T. | ORP | Taylor, H.N. | ORP |
| Fredenburg, E.A. | Ecology | Trenchard, G.D.* | ORP |
| Harp, B.J. | ORP | Trent, J.S. | ORP |
| Harris, S. | CTUIR | Triplett, M.B. | PNNL |
| Hedges, J. | Ecology | Uziemblo, N.H.* | Ecology |
| Hidden, F.B.* | ORP | Vance, J.G. | FH |
| Huffman, L.A. | ORP | Wallace, J.J. | Ecology |
| Jackson, Z. | Ecology | Whalen, C.L.* | Ecology |
| Jim, R. | Yakama | Administrative Record | |
| Kemp, C.J.* | ORP | | |
| Knox, K.E.* | KCR | | |
| Laws, G. L. | WDOH | | |

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*Attendees

Office of River Protection
Tri-Party Agreement Quarterly Milestone Review
Meeting Minutes
November 19, 2009

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

M-45-56F, Complete Implementation of Agreed to Interim Measures

ORP reported that the balance of the FY09 and FY10 efforts were to be established via the July 21, 2009 meeting minutes. The meeting minutes will be brought to the next Project Managers Meeting for Ecology signature and approval. ORP summarized the actions planned for completion in FY09: 1) evaluate the merit of proceeding with the SX Tank Farm characterization; 2) plan for a future interim barrier; 3) provide Ecology with the latest SGE and direct push results. ORP is meeting with Ecology to discuss the interim barrier criteria. Based on agreed-to criteria, ORP is resolving the southeast part of SX and S Farm for assumed pipeline leaks and then will move to BY Farm. ORP will be providing Ecology a plan for decommissioning up to five existing boreholes per year in future years. The fact sheet text for the TY interim barrier design and construction has been resolved, and Ecology is preparing an approval letter.

Actions identified for FY10 are: 1) construction of interim surface barrier in TY Farm, pending Ecology approval of the plan; 2) ORP to provide Ecology with the TY barrier design package by March 2010; 3) complete characterization in support of an interim surface barrier in SX Farm; 4) implement the plan for borehole decommissioning.

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

This action has been completed. ORP addressed Ecology's comments and obtained approval, and then responded to Ecology with an update on November 3, 2009 (DOE letter 09-TPD-118). ORP stated that there is an issue regarding Ecology's acceptance of the work plan, due to the legal wording on Ecology's regulatory authority over radiation components. This boilerplate wording condition has been mandated by DOE legal and has been included in all CMS documentation that has been submitted. Ecology responded that ORP's statement misrepresents Ecology's request, and that Ecology has not requested any AEA authority. Ecology has suggested that if DOE wants to meet the TPA requirements, it should revise the language so that Ecology could consider both radioactive and non-radioactive components. It was agreed that DOE and Ecology legal should confer in an effort to resolve the issue.

M-45-61, Submit to Ecology for Review and Approval as an Agreement Primary Document a Phase 2 RCRA Facility Investigative/Corrective Measures Study Report for WMA C; 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

These two milestones have been moved out to 2014 in the draft Consent Decree package. Investigative work in C Farm will be performed through 2013, and a performance assessment is being developed for WMA C.

Significant Accomplishments

Additional accomplishments were noted: 1) the SGE data for the SX Farm was completed; 2) re-analysis of the T Farm SGE data using updated analysis tools was completed; 3) the test of the prototype tech 99 to tech 30 was completed.

Actions: Ecology noted that the master work plan under Milestone M-45-58 has been submitted, but there are two remaining open comments. Ecology received ORP's comment response, and the action is for Ecology to send a letter in response to ORP's open comments. The comments are related to resolution of the Central Plateau strategy and how to address closure in the permit. ORP indicated that M-45-58 will be included on the next quarterly milestone status.

M-45-00, Complete Closure of all Single-Shell Tank Farms

The new TPA change packages in the draft Consent Decree show a revised date of 12/31/40 for SST retrieval and 1/31/43 for SST closure.

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

ORP stated that Tank C-101 start of retrieval is currently scheduled for 5/8/12. The C-111 Tank Waste Retrieval Work Plan (TWRWP) was submitted to Ecology on 5/28/09 and approved on 10/8/09. The High Resolution Resistivity System (HRR) will be used as the primary leak detection in C-104, and retrieval is slated to start 12/8/09 (revised from 10/23/09). Ecology inquired about the C-104 retrieval complete date of 4/15/12. ORP indicated that the date may need to be changed if a significant heel is encountered in C-104. Heel retrieval in C-108 is planned for the March-April 2010 time frame using a water wash, followed by a caustic wash.

Significant Accomplishments

Ecology inquired about the status of the Defense Nuclear Facility Safety Board (DNFSB) comments regarding transfer of equipment causing a delay with retrieval in C-104. ORP responded that the DNFSB questions related to the variable frequency drive on the pump at AN-101, and the issue has been resolved.

SST Retrieval Sequence Document

M-45-02O - A discussion of this milestone is addressed under issues. ORP is proposing development of an Agreement in Principle and that the parties recognize this milestone will be held in abeyance.

Tank Retrievals With Individual Milestones

Tank S-102, M-45-15

ORP noted that M-45-15A, 15B, 15C and 15D are all at risk. During the cleanup of the spill at S-102 that occurred on July 26, 2007, all of the wires were cut and there is no retrieval system that can currently be deployed in S-102.

Tank 241-S-112

ORP stated that the due date of 6/30/11 for M-45-13C is considered at risk. A Component Closure Plan can't be submitted until the EIS is issued. The EIS is slated to be finished one year after the public comment period of the current EIS, which will be March 2011. That only allows three months for approval of the closure plan, which is not considered an appropriate time frame.

ORP anticipates that when the new TPA package is signed, a change package will be submitted to revise the date for M-45-13C. ORP stated that M-45-13D should be removed from the TPA since an Appendix H request is not needed.

Interim Stabilization Consent Decree

Ecology inquired about the future plans for running the S-102 exhauster. ORP indicated that the plan is to continue running the exhauster, and no decision has been made about shutting it down.

Ecology suggested that DOE and Ecology lawyers confer regarding the use of the exhauster, since the interim stabilization criteria does not include an exhauster as part of the liquid removal process.

Ecology asked when the next video will be taken to observe the amount of tank supernatant liquid. ORP will provide Ecology information about the next video event.

In Tank Characterization and Summary

Data Quality Objectives (DQO)

Action: Ecology requested information regarding what the mission analysis/strategic planning DQO entails, and who needs to be involved in the process.

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

There was no change in the status of this milestone.

242-A Evaporator Status

A table was provided for the 242-A Evaporator campaigns. There were no changes to report in the schedule.

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.

There was no change in the status of this milestone.

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

There was no change in status to report.

Project Managers Meetings

Ecology requested a change of dates for the January, July and September 2010 PMMs in an effort to be able to attend the SST PA meetings. The possibility of separating the WTP and SST attendees was suggested.

TPA Milestone Statistics

Revised tables for the TPA milestone statistics were provided. Transition has started with many of the new milestones, which are highlighted in the tables. Milestones to be deleted with the proposed change packages are shown. Milestones that were missed are updated to reflect either a proposed change in date or deletion.

FY 2009 ORP TPA Cost & Schedule Performance (CHG)

ORP reported on the cost and schedule performance through September 2009, which was the first year that WRPS was in execution. WRPS received an Earned Value Management System (EVMS) certification on September 17, 2009, which is a contract requirement. The EVMS certification was received from the Office of Engineering Construction Management (OECM), which performed an extensive formal review along with an independent contractor. FY2009 started with a budget of 245 million dollars, which was increased to a budget of 287 million. American Reinvestment and Recovery Act funding (ARRA) was received in March, and by the

end of September, WRPS had hired 583 employees to execute ARRA funding.

BNI Cost & Schedule Performance for Immobilization Plant (WTP) Project

Hanford Waste Treatment and Immobilization Plant (WTP) Project

The cost and schedule performance for year-to-date is positive; however, in September the schedule was slightly behind due to plant equipment and material. BNI is working to integrate all the risks into the schedule and cost.

Pretreatment Facility (PT)

ORP reported that the Vendor Commercial Grade Dedication (VCGD) program has verified and released material for current construction in the Pretreatment facility, with the exception of some piping with attached valves. Completion of that piping VCGD is planned by March 2010. A detailed schedule for analysis of each vessel modification is in place. Currently it is not known how many vessels will need modification or the extent of the modifications. A proposed design solution regarding the reboiler contamination issue has been submitted to ORP. A facility outside the Pretreatment facility will be built to house a secondary loop, which can be checked for contamination. A cost and schedule estimate for the secondary loop has been incorporated into the budget and schedule. BNI has submitted to ORP two options for mitigating the precipitation issue in the CPX system.

High Level Waste Facility (HLW)

The relocation of the secondary C5V filters is a major focus for HLW. The remote filter housings are being watched very closely, which have close to a year fabrication time. The dampers and associated piping, support steel, decking and other commodities are also being watched closely. The construction schedule recovery plan was put in place about July 2009, and it reflects recovery by July or August of 2010. An average of five wall placements per month is needed to meet the recovery plan. Ecology inquired about the impact on other work as a result of the slow-down in slab placement for October and November. ORP will provide a response to Ecology on the issue.

The melter cave crane maintenance shield door (22-tons) was received in the marshaling yard on October 1, 2009. The CGD impacts are being followed very closely, and priorities are based on construction need. Structural steel was cleared in October. Piping supplier and embeds, etc., are all on path and not holding up construction activities.

Low-Activity Waste (LAW) Facility

The justification for continued design, procurement and installation of the secondary offgas system is in the final stages of approval, and the safety authorization basis amendment request change will follow in the January-February 2011 time frame. The exhausters will be moved downstream, which will turn the system to totally negative pressure, except from the exhaust fans

out to the stack. The secondary offgas system is still on critical path for completion. The exhausters for the unit are on secondary critical path.

The schedule performance index (SPI) for LAW is at a .74, which is driven by the delay of receipt of the carbon bed absorber. During a vendor site visit, issues with some welds were discovered, which is being worked. It is not critical that receipt of the carbon bed is delayed and it has no effect on the overall project. The unit will need to be delivered about the same time as the thermal catalytic oxidizer, which is scheduled for 2012.

The LAW switch gear building shell has been completed, which is a BNI fee milestone. Under the proposed consent decree, BNI is about 11 months ahead of schedule for the LAW substantially complete milestone date of 12/31/14.

Balance of Facilities (BOF)

Vendors have been identified that can provide NQA-1 emergency diesel generators. BNI has energized the cathodic protection system (CPS); however, it has not been fully accepted by ORP due to problems with testing. It is anticipated that by the end of 2009, the CPS will be accepted and considered fully operational. The CPS is critical path because it protects the underground piping.

The SPI was affected by issues associated with the underground excavations, the CPS, and the delay in receipt of some glass former equipment.

Analytical Laboratory (LAB)

There were no significant issues to report for LAB. LAB is reflecting about four months of float for the substantially complete facility milestone date of 12/31/12 in the proposed consent decree.



Agenda
November 19, 2009

Office of River Protection
Quarterly Milestone Review Meeting
Ecology Conference Room 3A/B, 3100 Port of Benton Blvd., Richland

Chairperson: Stacy Charboneau

9:00 a.m. – 11:30 a.m.

Topic	Leads	Time
M-45, -50, -60 Single-Shell Tank Corrective Action	Bob Lober / Joe Caggiano	9:00
M-45-00, Complete Closure of All Single-Shell Tank Farms	Chris Kemp / Jeff Lyon	9:10
Interim Stabilization Consent Decree	John Long / Nancy Uziemblo	9:20
In Tank Characterization and Summary	John Long / Michael Barnes	9:25
M-47-00, Tank Waste Treatment, Storage and Disposal Facilities	Ben Harp / Les Fort	9:30
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 / Dan McDonald	9:45
M-62-00, Complete Pretreatment Processing and Vitrification of Tank Wastes	Ben Harp / Dan McDonald	10:00
BREAK		
TPA Milestone Statistics	Woody Russell / Dan McDonald / Jeff Lyon	10:20
FY 2009 ORP TPA Cost & Schedule Performance (CHG)	Janet Diediker / Dan McDonald / Jeff Lyon	10:30
BNI Cost & Schedule Performance for Immobilization Plant (WTP) Project	Wahed Abdul / Jeff Trent / Garth Reed / Dan McDonald	10:40

The favorable CTD CV of \$19,631k is due to:

Project Support

- Workforce Resources attributable to labor efficiency gains by streamlining Lockout-Tag out and Maintenance Safety Classification training classes; cost savings from subcontracted training charges with the two major training class providers; and, fewer relocation claims were processed the average amount per claim was less than planned.
- Business Services due to reduced Business and Occupational (B&O) tax resulting, efficiencies in material/labor accounts within Information Resource Management and Facility and Property Management.

Retrieval/Closure Program

- HIHTL Disposition resulting from efficiencies in engineering and field work activities- multiple hoses were grouped together to be worked in parallel; several of the HIHTL's were less contaminated than anticipated, and incorporation of lessons learned from previous HIHTL removals.
- Catch Tank & Pipeline Reporting due to using direct labor rather than contract dollars for the initial planning scope and efficiencies with using existing database and records.

Base Operations

- Design, fabrication and labor efficiencies associated with the AY-101 and AY-102 Corrosion probes.
- Labor efficiencies by conducting back to back UT examinations for AW-101 and AW-105; efficiencies realized in the AW-106 UT as surface conditions of the tank wall required less than projected wall cleaning.
- Recovery Act DST Infrastructure upgrades for the ventilation reliability study in SY Farm less than planned; SY P-28 Exhauster and upgrades requiring less than planned resources and procurement of valve funnels and positioning plates less than originally planned.

Agenda

Office of River Protection
Tri-Party Agreement
Quarterly Milestone Review Meeting
Ecology Conference Rooms
November 19, 2009
9:00 a.m. – 11:30 a.m.

Page	Topic	Leads	Time
41	M-45, -50, -60 Single-Shell Tank Corrective Action	Bob Lober / Joe Caggiano	9:00
43	M-45-00, Complete Closure of All Single-Shell Tank Farms	Chris Kemp / Jeff Lyon	9:10
55	Interim Stabilization Consent Decree	John Long / Nancy Uziemblo	9:20
56	In Tank Characterization and Summary	John Long / Michael Barnes	9:25
57	M-47-00, Tank Waste Treatment, Storage and Disposal Facilities	Ben Harp / Les Fort	9:30
59	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 / Dan McDonald	9:45
60	M-62-00, Complete Pretreatment Processing and Vitrification of Tank Wastes	Ben Harp / Dan McDonald	10:00
	BREAK		
3	TPA Milestone Statistics	Woody Russell / Dan McDonald / Jeff Lyon	10:20
25	FY 2009 ORP TPA Cost & Schedule Performance (CHG)	Janet Diediker / Dan McDonald / Jeff Lyon	10:30
62	BNI Cost & Schedule Performance for Immobilization Plant (WTP) Project	Wahed Abdul / Jeff Trent / Garth Reed / Dan McDonald	10:40

Office of River Protection

**Tri-Party Agreement
Quarterly Milestone Review Meeting
November 19, 2009**



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

October 2009

Agenda

Office of River Protection
Tri-Party Agreement
Quarterly Milestone Review Meeting
Ecology Conference Rooms
November 19, 2009
9:00 a.m. – 11:30 a.m.

Page	Topic	Leads	Time
3	M-45, -50, -60 Single-Shell Tank Corrective Action	Bob Lober / Joe Caggiano	9:00
30	M-45-00, Complete Closure of All Single-Shell Tank Farms	Chris Kemp / Jeff Lyon	9:10
27	Interim Stabilization Consent Decree	John Long / Nancy Uziemblo	9:20
37	In Tank Characterization and Summary	John Long / Michael Barnes	9:25
38	M-47-00, Tank Waste Treatment, Storage and Disposal Facilities	Ben Harp / Les Fort	9:30
39	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 / Dan McDonald	9:45
41	M-62-00, Complete Pretreatment Processing and Vitrification of Tank Wastes	Ben Harp / Dan McDonald	10:00
42	BREAK		
25	TPA Milestone Statistics	Woody Russell / Dan McDonald / Jeff Lyon	10:20
	FY 2009 ORP TPA Cost & Schedule Performance (CHG)	Janet Diediker / Dan McDonald / Jeff Lyon	10:30
44	BNI Cost & Schedule Performance for Immobilization Plant (WTP) Project	Wahed Abdul / Jeff Trent / Garth Reed / Dan McDonald	10:40

TPA Milestone Statistics

(Including target milestones)

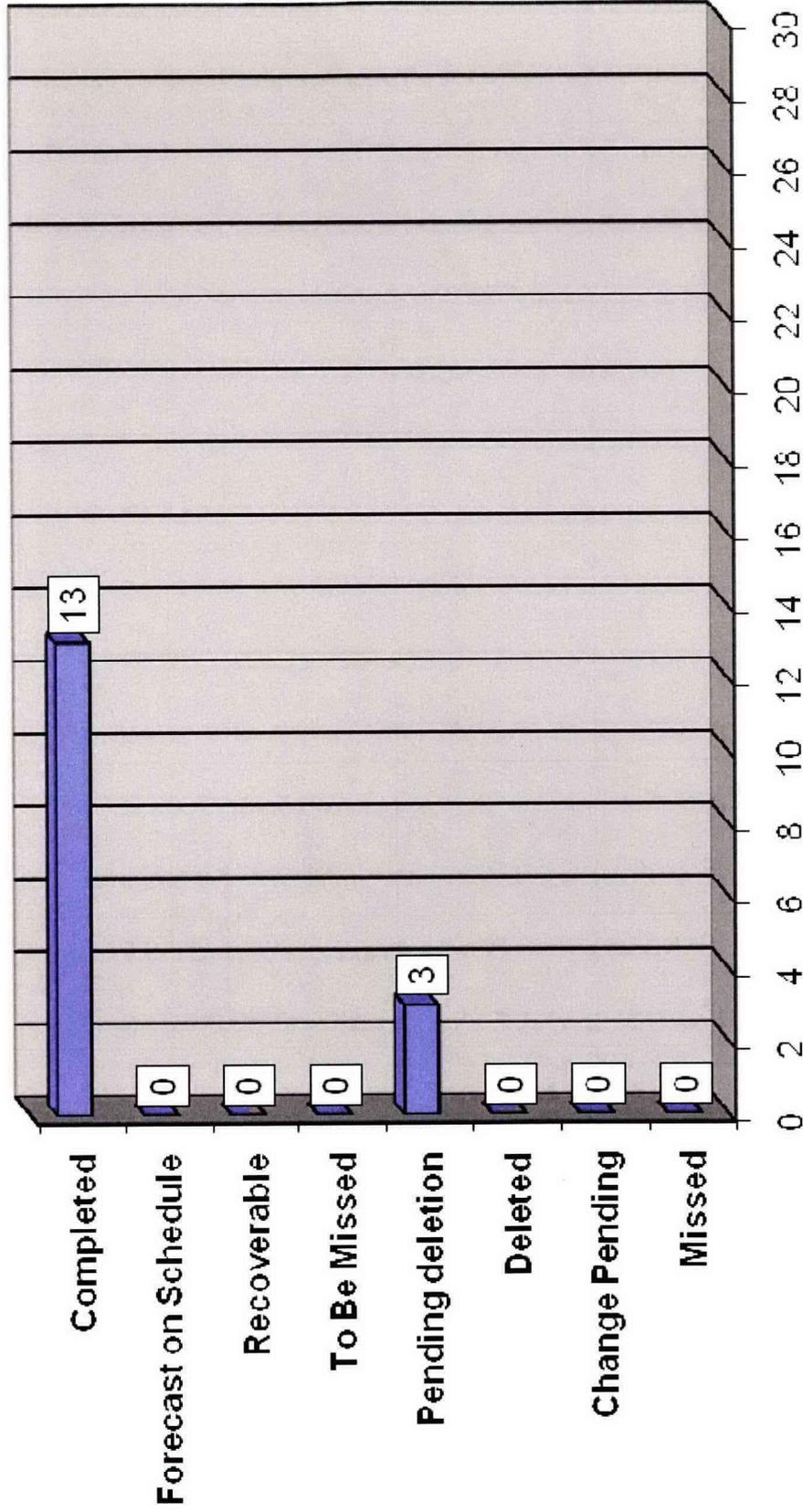
Milestone	Due Date	Total Active as of 02/21/08 10/01/09	Milestone Number	Due Date	Milestone Number	Due Date
M-20-00 , Submit Part B Permit Application on Closure/Post Closure Plans for all RCRA TSD Units	12/31/08 (M-20-00)	0				
M-42-00A , Provide Additional DST Capacity	TBD	1	M-42-00 M-42-00A	TBD		
M-45-00 , Complete Closure of all SST Farms	09/30/24 (M-45-00) <u>01/31/43</u>	35 19	M-45-00 M-45-00B M-45-00C M-45-00D M-45-02 M-45-02Q 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 M-45-70 M-45-80 M-45-81 M-45-82 M-45-83 M-45-84 M-45-85 M-45-86	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 12/31/40 01/31/11 09/30/14 09/30/15 06/30/19 01/31/17 01/31/22 12 months after each tank retrieval	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 M-45-90 M-45-91 M-45-92 M-45-100 M-45-101	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 12/31/14 07/31/12 06/30/15 09/30/10 09/30/10 09/30/16 60 days after milestone adoption 60 days after milestone adoption
M-47-00 , Complete All Work for Phase 1 Operations Work Necessary to Provide Facilities for Management of Secondary Waste from the WTP.	02/28/18 (M-47-00) When WTP Achieves Initial Plant Operation	3 2	M-47-00 M-47-03A	02/28/18 When WTP Achieves Initial Plant Operation 03/31/09	M-47-06	06/30/10 06/30/12
M-50-00 , Complete Pretreatment Processing of Hanford Tank Waste	12/31/28 (M-50-00)	1	M-50-00	12/31/28		
M-51-00 , Complete Vitrification of Hanford High	12/31/28 (M-51-00)	1	M-51-00	12/31/28		

TPA Milestone Statistics

(Including target milestones)

Milestone	Due Date	Total Active as of <u>02/21/08</u> <u>10/01/09</u>	Milestone Number	Due Date	Milestone Number	Due Date
<u>Level Tank Waste</u>						
<u>M-61-00* (alternate path), Complete Pretreatment & Immobilization of Hanford Low Activity Tank Waste</u>	<u>12/31/28</u> <u>(M-61-00)</u>	<u>1</u>	<u>M-61-00</u>	<u>12/31/28</u>		
<u>M-62-00, Complete Pretreatment Processing and Vitrification of Hanford High Level (HLW) and Low Activity (LAW) Tank Wastes</u>	<u>12/31/28</u> <u>(M-62-00)</u> <u>12/31/47</u>	<u>13</u> <u>12</u>	<u>M-62-00</u> <u>M-62-00A</u> <u>M-62-07B</u> <u>M-62-01S</u> <u>M-62-01T</u> <u>M-62-01U</u> <u>M-62-20</u> <u>M-62-21</u> <u>M-62-30</u>	<u>12/31/28</u> <u>02/28/18</u> <u>12/31/07</u> <u>07/31/09</u> <u>01/31/10</u> <u>07/31/10</u> <u>06/30/10</u> <u>02/28/23</u> <u>12 months after milestone adoption</u>	<u>M-62-08</u> <u>M-62-09</u> <u>M-62-01U</u> <u>M-62-01V</u> <u>M-62-10</u> <u>M-62-01W</u> <u>M-62-11</u> <u>M-62-31-T01</u> <u>M-62-32-T01</u> <u>M-62-33-T01</u> <u>M-62-34-T01</u> <u>M-62-40</u> <u>M-62-45</u> <u>M-62-49</u>	<u>06/30/06</u> <u>02/28/09</u> <u>07/31/10</u> <u>01/31/11</u> <u>01/31/11</u> <u>07/31/11</u> <u>06/30/07</u> <u>TBD</u> <u>TBD</u> <u>TBD</u> <u>TBD</u> <u>10/31/10</u> <u>04/30/15</u> <u>10/31/11</u>
<u>M-90-00, Interim Storage and Disposal of LAW and Interim Storage of HLW</u>	<u>TBD</u> <u>(M-90-00)</u> <u>When WTP Achieves Hot Start</u>	<u>2</u>	<u>M-90-00</u> <u>M-90-11</u>	<u>TBD</u> <u>When WTP Achieves Hot Start</u> <u>08/31/10</u> <u>12/31/12</u>		
<u>Interim Stabilization Consent Decree</u>	<u>09/30/04</u> <u>(D-001-00)</u>	<u>1</u>	<u>D-001-00</u>			
<u>RPP Consent Decree</u>						
<u>WTP Construction and Startup: Appendix A</u>	<u>12/31/22</u>	<u>19</u>	<u>A-1</u> <u>A-2 Interim</u> <u>A-3 Interim</u> <u>A-4 Interim</u> <u>A-5 Interim</u> <u>A-6 Interim</u> <u>A-7 Interim</u> <u>A-8 Interim</u> <u>A-9 Interim</u> <u>A-12 Interim</u> <u>A-13 Interim</u> <u>A-14 Interim</u> <u>A-15 Interim</u> <u>A-16 Interim</u>	<u>12/31/22</u> <u>12/31/16</u> <u>06/30/18</u> <u>12/31/19</u> <u>12/31/12</u> <u>12/31/17</u> <u>12/31/14</u> <u>12/31/18</u> <u>12/31/19</u> <u>12/31/12</u> <u>12/31/15</u> <u>12/31/17</u> <u>12/31/18</u> <u>12/31/19</u>	<u>A-17</u> <u>A-18 Interim</u> <u>A-19 Interim</u> <u>A-20 Interim</u> <u>A-21 Interim</u>	<u>12/31/19</u> <u>12/31/09</u> <u>12/31/14</u> <u>12/31/10</u> <u>12/31/12</u>
<u>Tank Waste Retrievals: Appendix B</u>	<u>9/30/22</u>	<u>4</u>	<u>B-1</u> <u>B-2</u> <u>B-3</u> <u>B-4</u>	<u>09/30/14</u> <u>09/30/14</u> <u>12/31/17</u> <u>09/30/22</u>		
Total Active Milestones:		<u>59 61</u>				

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	

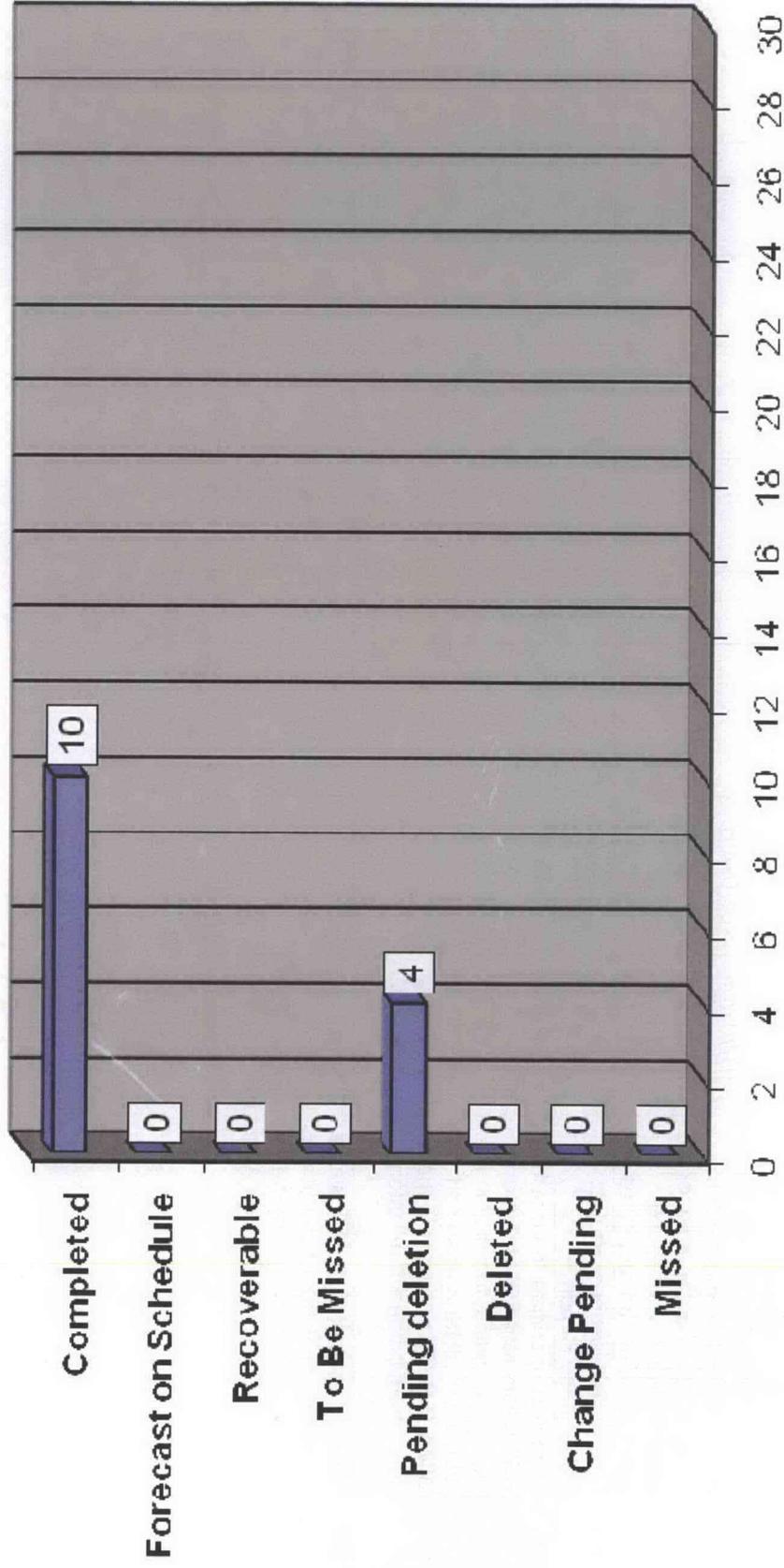
Fiscal Year 2006 Tri-Party Agreement Milestone Status

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).	06/30/06							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-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

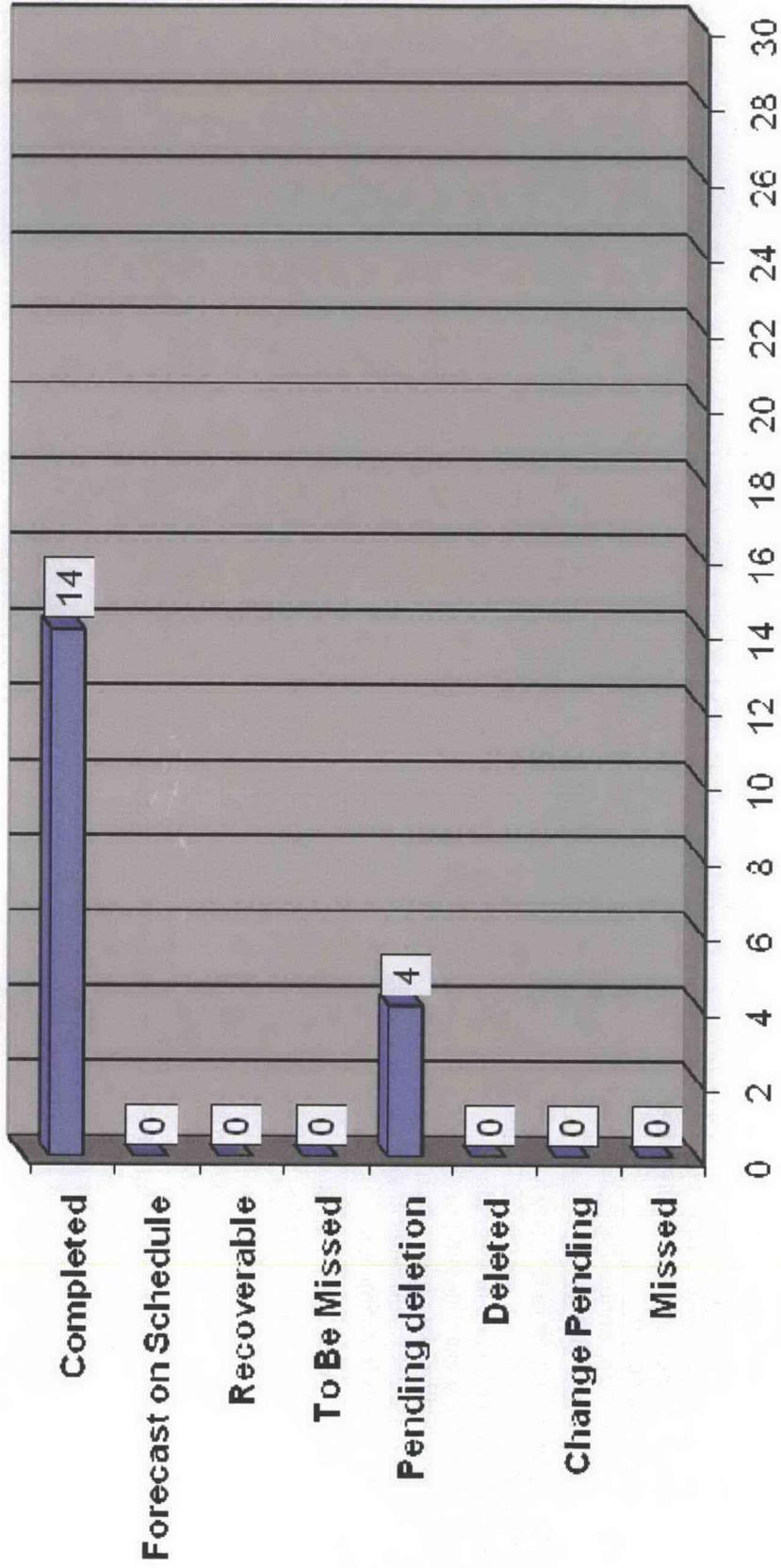
Milestone No.	Description	Due Date	Completed	Forecast		Recoverable	Unrecoverable	Missed	Pending Deletion	Deleted	Change Pending
				On Schedule	Schedule at Risk						
M-045-05A	Complete Waste Retrieval from S-102.	3/31/07							X		
D-001-00-R32	DOE shall, on a quarterly basis, submit to Ecology a written 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-062-010	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								

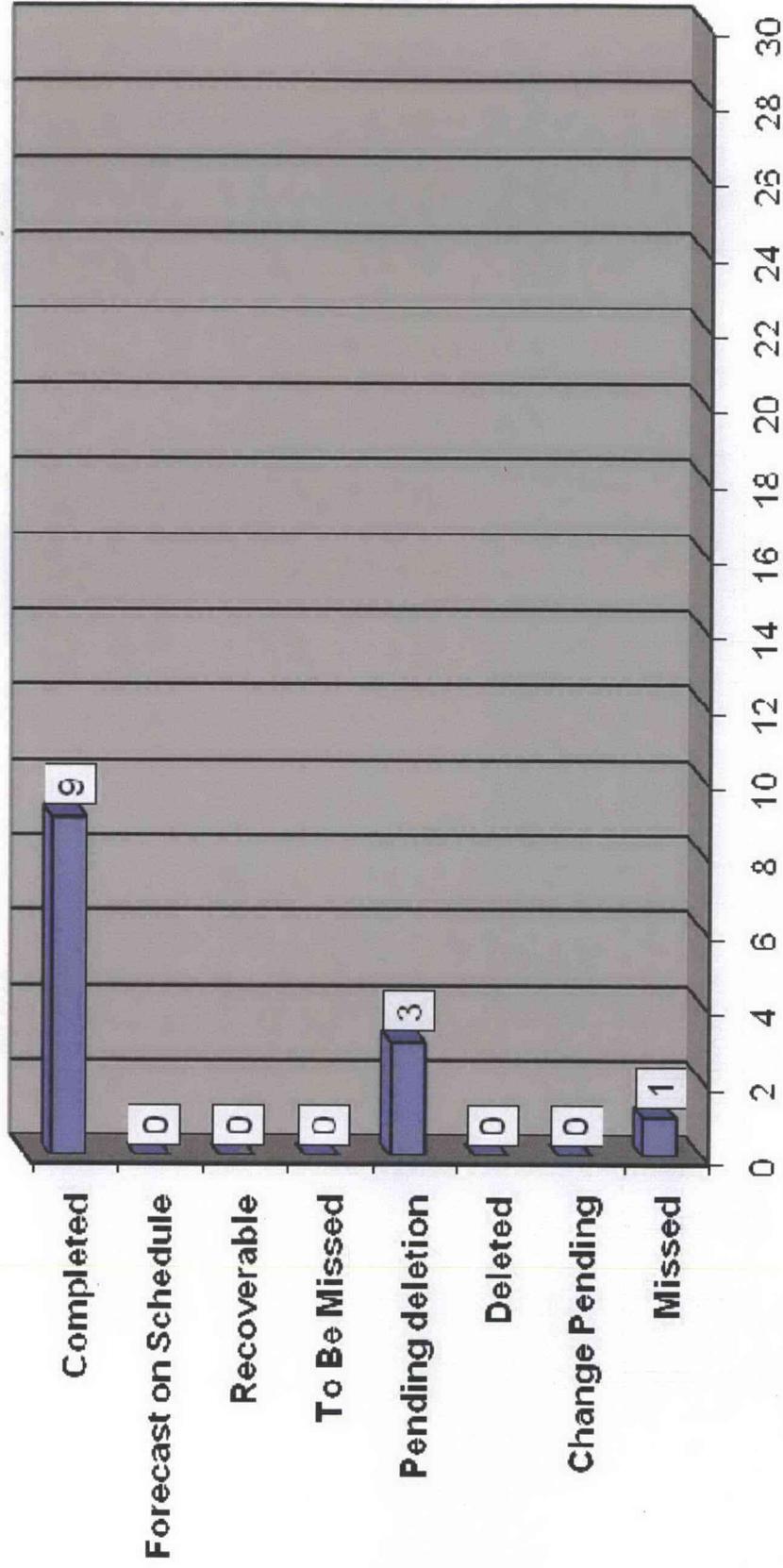
Fiscal Year 2008 Tri-Party Agreement Milestone Status

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		
M-045-XX	Remove pumpable liquid from Catch Tank S-302	9/30/08	9/30/08								

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								

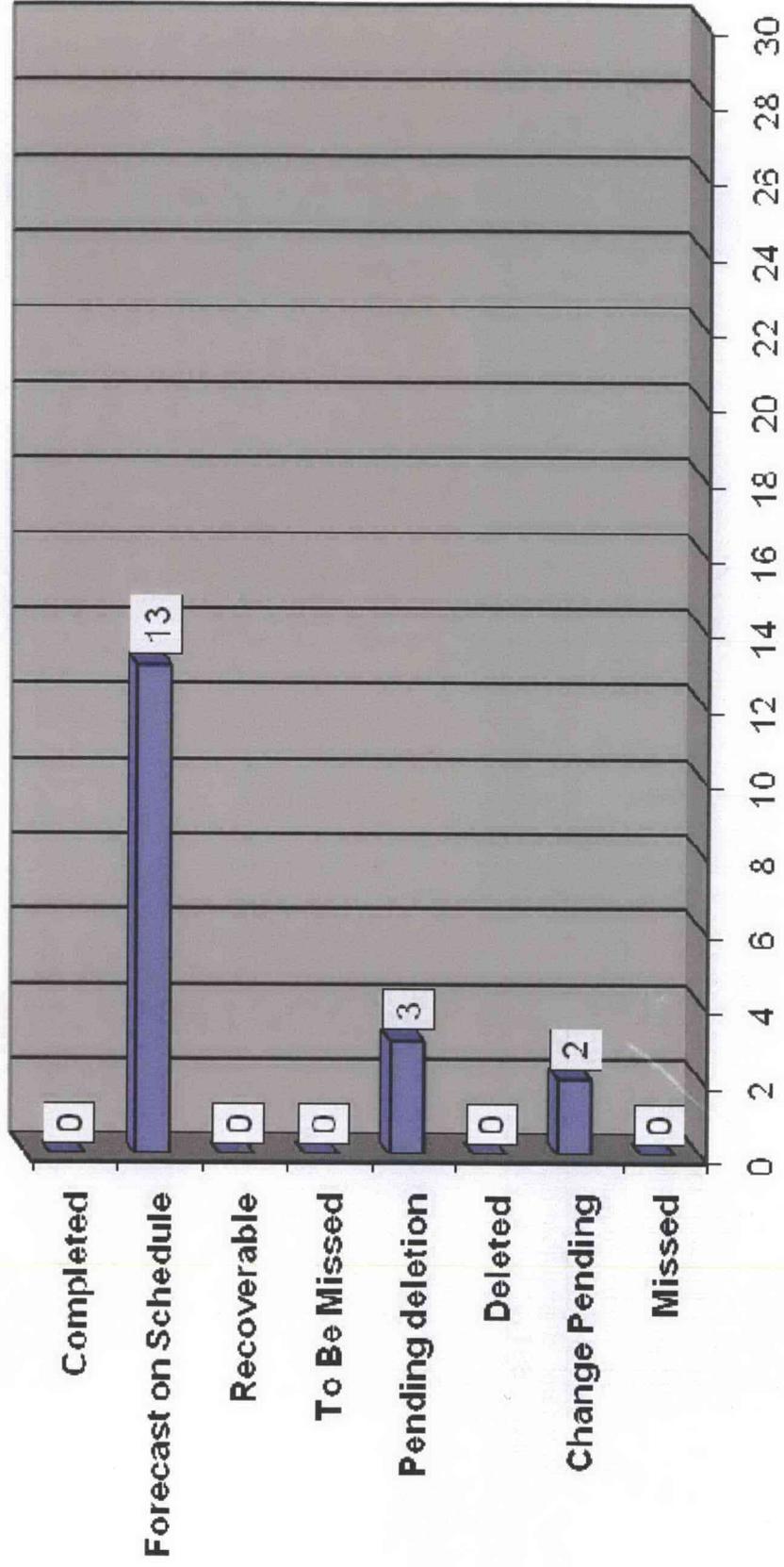
Fiscal Year 2009 Tri-Party Agreement Milestone Status

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	<u>07/21/09</u>								

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	<u>07/31/09</u>								
M-062-01S	Submit Semi-Annual Project Compliance Report	07/31/09	<u>07/31/09</u>								
M-045-05-T07	Initiate tank retrieval from 7 additional SSTs	09/30/09						X	X		

FY 2010 MILESTONE PERFORMANCE



Fiscal Year 2010 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						
<u>D-001-00R-42</u> (existing)	<u>Quarterly Report</u>	<u>10/31/09</u>		X							
<u>D-001-00R-43</u> (existing)	<u>Quarterly Report</u>	<u>01/31/09</u>		X							
<u>D-001-00R-44</u> (existing)	<u>Quarterly Report</u>	<u>04/30/10</u>		X							
<u>D-001-00R-45</u> (existing)	<u>Quarterly Report</u>	<u>07/31/10</u>		X							
<u>M-45-02O</u> (existing)	<u>Biennial Update to SST Waste Retrieval Sequence</u>	<u>03/01/10</u>							X		
<u>M-45-02O-A</u> (existing)	<u>New SST milestones within 60 days</u>	<u>04/30/10</u>							X		
<u>M-45-05-T08</u> (existing)	<u>Initiate Tank Retrieval from 8 Additional SSTs</u>	<u>09/30/10</u>							X		
<u>M-45-56F</u> (existing)	<u>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.</u>	<u>07/31/10</u>		X							
<u>M-62-01T</u> (existing)	<u>Submit Semi-Annual Project Compliance Report</u>	<u>01/31/10</u>		X							
<u>M-62-01U</u> (existing)	<u>Submit Semi-Annual Project Compliance Report</u>	<u>07/31/10</u>		X							
<u>M-47-06</u> (existing)	<u>Complete Negotiation of Agreement Requirements-Treatment Complex</u>	<u>06/30/10</u>									X
<u>M-90-11</u> (existing)	<u>Complete Canister Storage Facility Construction</u>	<u>08/31/10</u>									X
<u>M-45-90</u> (CR)	<u>Complete Interim Barrier Demonstration for the T-106 Interim Barrier</u>	<u>09/30/10</u>		X							
<u>M-45-91</u>	<u>Establish a panel and provide a</u>	<u>09/30/10</u>		X							

Fiscal Year 2010 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						
(CR)	report on SST Integrity Assurance Review										
M-45-100 (CR)	Submit to Ecology as an Agreement Primary Document a Catch Tank "assumed leak" response plan.	60 days after milestone adoption		X							
M-45-101 (CR)	Submit report on all Catch Tanks and associated pipelines that are identified in SST System Part A	60 days after milestone adoption		X							
M-62-20 (CR)	Close all 28 issues identified in Comprehensive Review of Hanford Waste Treatment Plant Flowsheet and Throughput Assessment, issued March 2006.	06/30/10		X							
A-18 Interim (CD)	Complete Structural Steel Erection Below Elevation 56' in PT Facility	12/31/09		X							

CR – Change Request**CD – Consent Decree**

Tank Farm Project Executive Summary

September Reporting

General

The Earned Value analysis is a comparison of cost and schedule performance to a one year Interim Performance Measurement Baseline. The one year Interim Performance Measurement Baseline was developed as part of contract transition and is based on expected funding levels for Fiscal Year 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 that follows reflects the format, WBS reporting levels, and variance thresholds which reflects agreement with the Tank Farm Operating Contractor 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 and cost variance analysis thresholds at the reporting levels are as follows:

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

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

TOC PERFORMANCE

WRPS September Project Performance - (\$k)								
	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC
CM	44,762.5	42,330.4	42,375.9	(2,432.1)	(45.5)	0.95	1.00	
CTD	286,739.6	281,298.8	261,667.5	(5,440.8)	19,631.2	0.98	1.08	2,122,558.2
Red shaded cells indicates any SPI/CPI less than .90; Green shaded cells indicate any SPI/CPI between .90 and .99; and Blue shaded indicates any SPI/CPI greater than or equal to 1.								

Summary Assessment:

The Current Month (CM) Schedule Variance (SV) was negative \$2.4M with a Schedule Performance Index (SPI) of .095 and the CM Cost Variance (CV) was \$.45K with a Cost performance Index of 1.00.

The Cumulative to Date (CTD) SV was negative \$5.4M with an SPI of 0.98 and the CTD CV was a favorable \$19.2M with a CPI of .98.

The primary contributors to the CTD schedule variance of \$5.4M are:

Retrieval and Closure: 1) *C-Farm Infrastructure*, due to delays in initiating the development of non-proprietary High Resolution Resistivity / Leak Detection Monitoring (HRR/LDM) equipment software and procedures. 2) *Interim Barrier*, due to long lead time of direct push materials and the need for Ground Penetrating Radar (GPR) data in TY Barrier causing the remaining of the FY 09 work scope to slip into FY 10. 3) *Retrieval Program Management*, due to the lead times to receive the Radiological Instrument Upgrades, and the Continuous Air Monitors (CAMs). All items have been ordered. The Cartogram Mapping System will take several months to receive. When this Omnibus funded scope was planned, the expectation was that all materials would be received by fiscal year end. A combination of reduced material coordinator and engineering support due to other higher priority work, and long lead items delayed ordering of these items. 4) *C-104 Retrieval*, due to the delays in removing water and discovery of the high radiation conditions in the 04-A Pit which caused delays in construction, procurement, and startup activities.

- 1) Business Services, due to delayed specification decisions that affected the award and procurement timing of the 2704HV Mobile Office Complex resulting in the work to slip into FY 10.
- 2) Base Operations: 1) *Tank Waste Sampling*, due to re-sequencing the grab samples to support the additional samples required for the C-108 Grab Sample and the AN-106 Caustic Addition PBIs in June and critical resources being reassigned to support Retrieval PBIs and Recovery Act scope at the end of September. 2) *DST Infrastructure Upgrades*, due to the DST Valve Assembly Upgrades AW-B field work being delayed due to the 242-A Evaporator Campaign completing later than expected; and the Cathodic Protection Upgrades delayed due to the late completion of the Annual Cathodic Protection System Adjustment by Base Operations and Farm outages drawing the critical resources. 3) *DST to DST Transfer*, due to the "as found" conditions in the Valve Pits and degrading transfer equipment requiring repairs prior to the transfer, new Transfer Readiness-to-Proceed process requirements; and resources were reassigned to higher priority transfers resulting in the AP-107 Recirculation and AW-106 to AW-102 transfers.
- 3) Recovery Act, due to the Cathodic Protection Upgrades being deferred into FY10 due to work scope planning and the ability to only enter the Tank Farm during scheduled outages.

The primary contributors to the CTD cost variance of \$19.6M are:

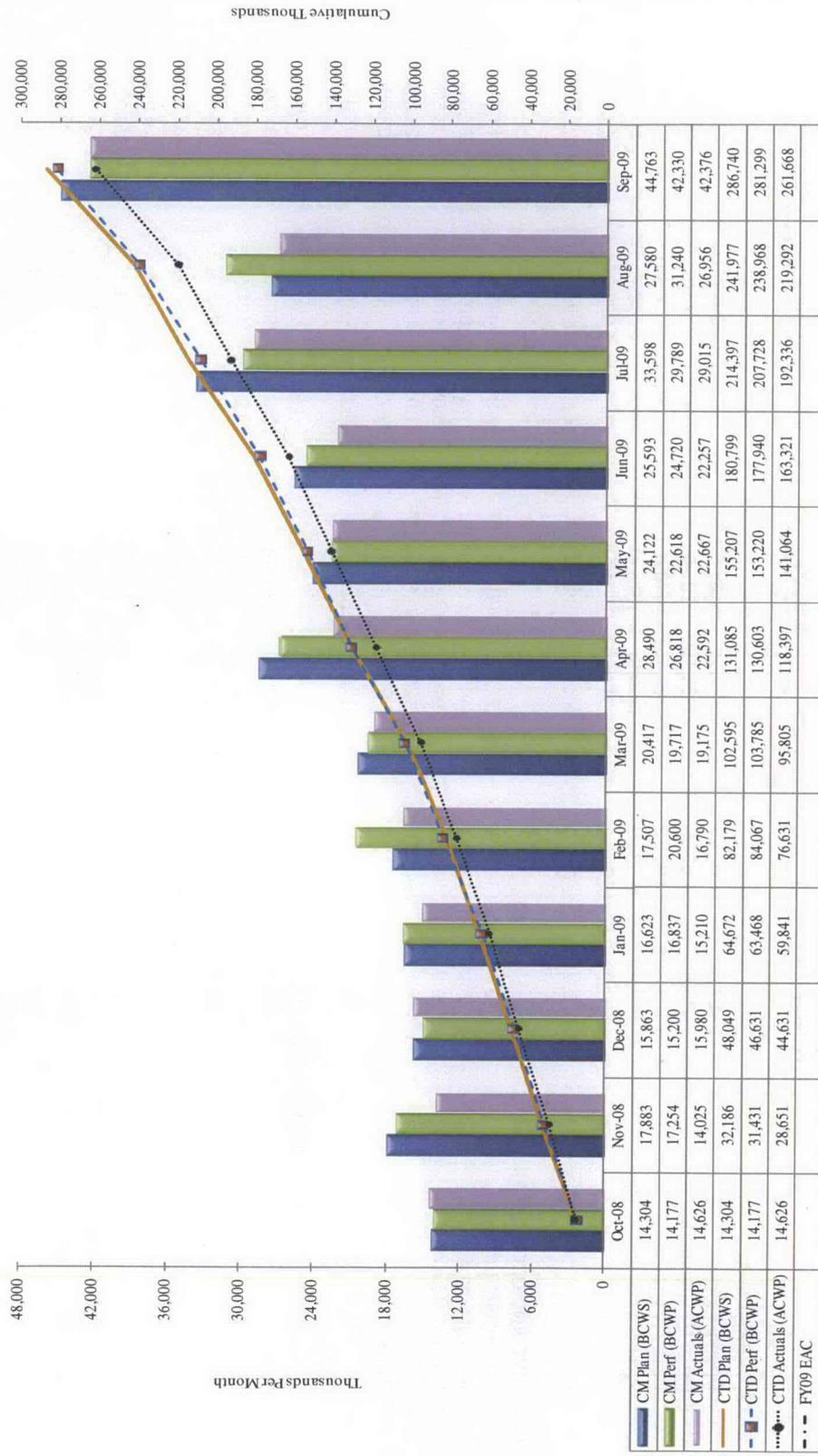
CURRENT MONTH PERFORMANCE MEASUREMENT - 09/2009

BY WORK BREAKDOWN STRUCTURE

Dollars in Thousands

WBS	TITLE	Budgeted Cost		Current Month			Variance		
		Work Scheduled	Work Performed	Actual Cost Work Performed	Schedule	SV %	Cost	CV %	
5.1	BASE OPERATIONS								
5.1.1	Base Operations	11,983.8	12,017.3	11,714.9	33.6	0.3%	302.4	2.5%	
5.1.2	DST Space Management	985.9	1,091.9	1,365.1	106.0	10.7%	(273.2)	-25.0%	
5.1.3	TOC Facility Operations	3,181.3	3,651.8	3,623.4	470.6	14.8%	28.4	0.8%	
5.1.4	Tank Farm Upgrades	3,049.4	2,836.0	1,689.3	(213.4)	-7.0%	1,146.7	40.4%	
5.1.5	Project Support	14,607.9	13,216.8	11,817.5	(1391.1)	-9.5%	1,399.3	10.6%	
	TOTAL	33,808.3	32,813.8	30,210.2	(994.3)	-2.9%	2,603.6	7.9%	
5.2	RETRIEVE AND CLOSE SSTs								
5.2.1	Retrieval/Closure Program	5,083.7	3,797.7	4,242.8	(1286.0)	-25.3%	(445.1)	-11.7%	
5.2.2	SST Retrieval East Area	1,688.9	1,496.1	3,405.5	(192.8)	-11.4%	(1,909.4)	-127.6%	
5.2.3	SST Retrieval West Area	159.6	316.0	210.1	156.4	98.0%	105.9	33.5%	
5.2.4	Closure Program	146.1	178.1	126.2	32.0	21.9%	52.0	29.2%	
5.2.5	SST Closure	59.7	42.0	19.5	(17.7)	-29.7%	22.5	53.5%	
	TOTAL	7,138.0	5,829.9	8,004.1	-1,308.1	-18.3%	(2,174.1)	-37.3%	
5.3	WFD/TREATMENT PLNG/DST RETRIEVAL/CLOSURE								
5.3.1	WTP Feed Delivery Program	1,225.4	981.6	1285.6	(243.8)	-19.9%	(304.0)	-31.0%	
5.3.2	Construct DST Systems	803.2	795.9	897.4	(7.4)	-0.9%	(101.5)	-12.8%	
5.3.3	RA - Transfer System Mod Project	166.9	179.8	226.3	12.9	7.7%	(46.5)	-25.9%	
5.3.6	Immobilization Program	344.1	310.1	394.7	(34.0)	-9.9%	(84.7)	-27.3%	
5.3.7	WTP Operational Readiness	275.5	416.9	378.5	141.4	51.3%	38.4	9.2%	
5.3.8	East Area Waste Receiving Facility	54.9	28.4	0.0	(26.5)	-48.3%	28.4	100.0%	
5.3.9	Tank Waste Pretreatment Project	121.4	179.7	165.2	58.2	48.0%	14.5	8.0%	
5.3.10	Secondary Waste Treatment/ETF	551.1	532.2	532.1	(19.0)	-3.4%	0.0	0.0%	
5.3.11	Next Generation Projects	273.8	262.3	281.9	(11.5)	-4.2%	(19.6)	-7.5%	
	TOTAL	3,816.3	3,686.9	4,161.7	-129.7	-3.4%	(475.0)	-12.9%	
5.4.1	Supplemental Treatment	0.0	0.0	0.0	0.0	0.0%	0.0	0.0%	
	TOC TOTAL	44,762.6	42,330.6	42,376.0	-2,432.1	-5.4%	-45.5	-0.1%	

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



EARNED VALUE PERFORMANCE AT WBS LEVELS 3 and 4

The Appendix B earned value performance reporting that follows reflects the format, WBS reporting levels, and variance thresholds agreed to with the ORP for this TOC Monthly Performance Report. 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 and cost variance analysis thresholds at the reporting levels are as follows:

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

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

***YELLOW SHADED CELLS ON THE FOLLOWING TABLES INDICATE THE VARIANCE IS REPORTABLE. 5.01.01 - BASE OPERATIONS**

WBS 5.01.01.01 - Base Operations Project Management

September 2009 (\$k)

	BCWS	BCWP	ACWP	SV	SV%	CV	CV%	SPI	CPI	BAC
CM	366.1	366.1	519.4	0.0	0%	(153.4)	(42%)	1.00	0.70	
CTD	3,516.5	3,516.5	3,007.5	0.0	0%	509.0	14%	1.00	1.17	18,195.8

Schedule and Cost Variance Analysis

The unfavorable CM CV of (\$153K) is reportable:

Description/Cause: is due to processing cost transfers associated with B/BY Characterization.

Impact: Monitoring Required (within CAM Management Responsibility).

Monitoring: This is a one-month point adjustment and costs should normalize in FY10.

The favorable CTD CV of \$509K is reportable:

Description/Cause: due to 1) Completing work effectively with approximately three (3) FTE's less than planned; originally due to staffing vacancies. 2) Costs to B/BY Characterization were incorrectly charged. A cost transfer processed in September has mitigated some of this variance.

Impact: Monitoring Required (within CAM Management Responsibility).

Monitoring: 1) Adjusted plan in NTB to reflect staffing reality. 2) None required.

WBS 5.01.01.04 - Core Services**September 2009 (\$k)**

	BCWS	BCWP	ACWP	SV	SV%	CV	CV%	SPI	CPI	BAC
CM	286.6	286.6	228.6	0.0	0%	58.0	20%	1.00	1.25	
CTD	2,674.9	2,674.9	2,098.9	0.0	0%	576.0	22%	1.00	1.27	8,571.8

Schedule and Cost Variance Analysis

The favorable CTD CV of \$576K is reportable:

Description/Cause: due to the Bargaining Unit Training account being under utilization during the year. Labor charges have gone to home accounts instead, with little ability to monitor accuracy in time reporting.

Corrective Action: This account was included in the overall TOC.

WBS 5.01.01.05 - Tank Chemistry and Integrity**September 2009 (\$k)**

	BCWS	BCWP	ACWP	SV	SV%	CV	CV%	SPI	CPI	BAC
CM	750.3	898.5	960.2	148.2	20%	(61.7)	(7%)	1.20	0.94	
CTD	8,481.4	8,476.6	7,386.3	(4.9)	(0%)	1,090.3	13%	1.00	1.15	76,339.2

Schedule and Cost Variance Analysis

The favorable CTD CV of \$1,093k is reportable:

Description/Cause: due to 1) Tank Chemistry Control within the AY-101 Corrosion Probe activity. Efficiencies were achieved by the subcontractors during the design and fabrication efforts as a result of designing two similar probes with the same functional characteristics as opposed to each probe having unique functional characteristics. Labor efficiencies were also achieved as a result of installing the AY-101 and AY-102 Corrosion Probes at the same time due to the close proximity of the tanks and the ability to combine the field work; and 2) DST Integrity Project within the AW-101 and AW-105 Ultrasonic Testing Examinations. Labor efficiencies were realized during field activities when these examinations were performed back-to-back due to the availability of resources and the close proximity of the tanks. Labor efficiencies were also realized with the AW-106 UT field preparations and UT field scanning activities due to cleaner than expected surface conditions of the tank wall which required less than normal wall cleaning.

Corrective Action: Closed. The Funding Targets were reduced in PDN Revision 7 by the FY09 FYE favorable cost variance.

WBS 5.01.01.06 - Solid Waste Management

September 2009 (\$k)

	BCWS	BCWP	ACWP	SV	SV%	CV	CV%	SPI	CPI	BAC
CM	607.7	607.7	631.6	0.0	0%	(23.9)	(4%)	1.00	0.96	
CTD	5,671.5	5,671.5	4,691.4	0.0	0%	980.0	17%	1.00	1.21	23,663.1

Schedule and Cost Variance Analysis

The favorable CTD CV of \$980K is reportable:

Description/Cause: is due to 1) Waste Treatment & Disposal of the C-104 Heel Jet Pump shipment to the off-site disposal facility was delayed until October. The C-104 Heel Jet Pump has been characterized as Remote Handled Transuranic (TRU) Waste and disposal and transportation options was finalized with the shipment to PermaFix scheduled in October 2009; 2) labor efficiencies within Waste Management Engineering & Technical Support and Waste Operations due to fewer shipments supporting Base Operations being sent to off-site facilities versus an increase in shipments supporting the 222-S Laboratory. In addition, overtime labor efficiencies were realized when process changes were made to the schedule and resources to meet Base Operations shipment needs during normal working hours versus overtime during off-shift hours.

Monitoring: 1) Waste Treatment & Disposal will continue to reflect a favorable cost variance until the C-104 Heel Jet Pump shipment has been received and processed at PermaFix and ERDF; and 2) Waste Management Engineering & Technical Support and Waste Operations will continue to reflect a favorable cost variance until Base Operations waste shipments begin to increase. Management has reviewed the Waste processing needs for the remainder of the year and has identified shipments to be sent to PermaFix Northwest and Environmental Restoration Disposal Facility (ERDF).

5.01.02 - DST SPACE MANAGEMENT

September 2009 (\$k)

	BCWS	BCWP	ACWP	SV	SV%	CV	CV%	SPI	CPI	BAC
CM	985.9	1,091.9	1,365.1	106.0	11%	(273.2)	(25%)	1.11	0.80	
CTD	5,947.8	5,606.3	7,445.7	(341.5)	(6%)	(1,839.4)	(33%)	0.94	0.75	43,954.0

Schedule and Cost Variance Analysis

The unfavorable CM CV of (\$273K) is reportable:

Description/Cause: is due to unplanned work to correct a jumper leak to Nozzle L.

Monitoring: The CAM will continue to evaluate charging to this account to ensure accurate charging has occurred and request for re-TIS when necessary.

The unfavorable CTD CV (\$1,839K) is reportable:

Description/Cause: is due to 1) 242-A Evaporator Operations unplanned maintenance costs associated with the FY09 decontamination of the condenser room, repair of the condenser room secondary containment special protective coatings, removal of existing electric compressors and prep work for installation of the new electric compressors (now funded under WBS 5.1.2.4.1.2), and equipment repairs necessary to support Campaign 09-01/09-02; and 2) the extended duration of Campaigns 09-01/09-02; and 2) DST to DST Transfer due to additional overtime needed to investigate a leak on Nozzle L; evaluate drain seal assemblies; issues with valve positioning in AW-06A; develop of work packages to perform leak checks; and monitoring by Industrial Hygiene Technicians (IHT) for dose reconstruction.

Impact: Monitoring Required (within CAM Management Responsibility).

Monitoring: The unfavorable cost variance is unrecoverable. Project Direction Notice (PDN) Revision 5 increased the Funding Target for this account to reflect the Spend Forecast. To minimize the increase of the unfavorable cost variance, the Control Account Manager aggressively monitored and limited labor/overtime and non-labor support.

5.01.03 - TOC FACILITY OPERATIONS

September 2009 (\$k)

	BCWS	BCWP	ACWP	SV	SV%	CV	CV%	SPI	CPI	BAC
CM	3,181.3	3,651.8	3,623.4	470.6	15%	28.4	1%	1.15	1.01	
CTD	22,331.2	22,365.1	20,995.9	33.9	0%	1,369.2	6%	1.00	1.07	151,672.2

Schedule Variance and Cost Variance Analysis

The favorable CM SV of \$471k is reportable:

Description/Cause: due to the recovery and completion of the repair of the stairway at door 17/18 and removal of the duct from the supply fan stairway and the acceleration of some FY10 planned work.

5.01.04 - TANK FARM UPGRADES

September 2009 (\$k)

	BCWS	BCWP	ACWP	SV	SV%	CV	CV%	SPI	CPI	BAC
CM	3,049.4	2,836.0	1,689.3	(213.4)	(7%)	1,146.7	40%	0.93	1.68	
CTD	10,406.7	9,369.3	6,034.0	(1,037.5)	(10%)	3,335.3	36%	0.90	1.55	107,190.7

Schedule and Cost Variance Analysis

The unfavorable CTD SV of (\$1,038K) of which (\$617K) is RA is reportable:

Description/Cause: due to: 1) RA – DST Valve Assembly requiring ECNs to replace valve funnels for AP-02A and AP-02D requires rework to show new funnel with split collar design; re-design of funnels led to delays in completion of fabrication; and re-design of funnels to allow incorporation of the new split collar funnel for AZ-01A, AZ-VP and AW-A pits and re-design of the jumpers for AN-A, AN-B and AP-VP have delayed completion of this workscope. 2) RA – DST Infrastructure Upgrades due to resources being assigned to higher priority work causing FY10 work scope activities within the Cathodic Protection Systems Upgrades to be deferred into FY10 (evaluate condition of buried pipelines, assess waterproof line, and revise Cathodic Protection data collection procedures). 3) DST Valve Assembly Upgrades AW-B field work being delayed due to the 242-A Evaporator Campaign completing later than expected. This work could not be performed until the 242-A Evaporator Campaign was completed. 4) the Cathodic Protection Upgrades being delayed due to the late completion of the Annual Cathodic Protection System Adjustment by Base Operations and Farm outages drawing the critical resources.

Impact: Monitoring Required (within CAM Management Responsibility).

Monitoring: The 242-A Evaporator Campaign was completed in June and the field work for the AW-B was initiated in late June and will be completed by fiscal year-end. Additionally, the Cathodic Protection System Project Rectifier Adjustments have not been initiated yet and will only be completed this year if Senior Management assigns a higher priority to the work in order to assign critical resources.

The favorable CM CV of \$1,147K of which \$915K is RA is reportable:

Description/Cause: is due to 1) RA – 242-A Evaporator Upgrades – Instrument procurements came in lower than budget. 2) RA – DST Farm Upgrades - 1) resources required to resolve NEC issues in SY Farm are less than planned; and 2) it is determined through technical evaluations that the AN Exhauster Evaluation bounds all the HVAC systems, therefore, the Vent Reliability Study has been completed significantly under budget.

Impact: Monitoring Required (within CAM Management Responsibility).

The favorable CTD CV of \$3,335K of which \$2,880K is RA is reportable:

Description/Cause: is due to 1) RA – DST Infrastructure Upgrades - resources required to perform the Ventilation Reliability Study and to resolve National Electrical Code (NEC) issues in SY Farm are less

than planned; and the planned scope for the Vent Reliability Study is to evaluate all five (5) farms which is larger than the actual scope (AN farm only) performed. 2) RA – SY Farm Upgrades - the Engineering Change Notice (ECN) preparation and work package planning for the SY P-28 Exhauster Removal project is completing under budget; and the Exhauster Upgrades project required less than planned resources. 3) RA – DST Valve Assembly Upgrades - WRPS Engineering was able to positively identify all valve part numbers by reviewing prior videos. As a result, the planned task to perform the video to determine the valve part numbers was avoided. Also, procurement of valve funnels and positioning plates are less than originally estimated.

Impact: Monitoring Required (within CAM Management Responsibility).

5.01.05 - PROJECT SUPPORT**WBS 5.01.05.01 - Project Integration****September 2009 (\$k)**

	BCWS	BCWP	ACWP	SV	SV%	CV	CV%	SPI	CPI	BAC
CM	907.1	861.9	1,035.2	(45.2)	(5%)	(173.3)	(20%)	0.95	0.83	
CTD	8,097.8	8,092.6	7,626.9	(5.2)	(0%)	465.8	6%	1.00	1.06	62,057.5

Schedule Variance and Cost Variance Analysis

The unfavorable CM CV of (\$173K) is reportable:

Description/Cause: due to Project Controls' accruals for prior month's subcontractor support and an incorrect subcontract charge that belongs to RA.

Impact: Monitoring Required (within CAM Management Responsibility).

- Continue to conduct Project Manager Qualification Boards.
- Prepare Early LAW/BOF/LAB Transition REA estimate.

WBS 5.01.05.05 - Workforce Resources**September 2009 (\$k)**

	BCWS	BCWP	ACWP	SV	SV%	CV	CV%	SPI	CPI	BAC
CM	1,218.5	1,130.1	2,345.4	(88.3)	(7%)	(1,215.3)	(108%)	0.93	0.48	
CTD	10,191.0	10,191.0	8,809.2	0.0	0%	1,381.8	14%	1.00	1.16	46,044.7

Schedule Variance and Cost Variance Analysis

The unfavorable CM CV of (\$1,215K) is reportable:

Description/Cause: due to Human Resource year-end activities to accrue all outstanding relocation and retention cost.

Impact: Monitoring Required (within CAM Management Responsibility).

The favorable CTD CV of \$1,382K is reportable:

Description/Cause: due to TOC Training Program labor efficiency gains by streamlining the mandated Lockout-Tagout and Maintenance Safety Classification training classes and cost savings from subcontracted training charges with the two (2) major training class providers.

Impact: Monitoring Required (within CAM Management Responsibility).

WBS 5.01.05.06 - Business Services**September 2009 (\$k)**

	BCWS	BCWP	ACWP	SV	SV%	CV	CV%	SPI	CPI	BAC
CM	3,978.9	2,660.4	788.2	(1,318.5)	(33%)	1,872.2	70%	0.67	3.38	
CTD	21,166.8	19,822.9	16,156.7	(1,343.9)	(6%)	3,666.2	18%	0.94	1.23	77,155.7

Schedule Variance and Cost Variance Analysis

The unfavorable CM SV of (\$1,319K) is reportable:

Description/Cause: delay in awarding the contract for the 2704HV Mobile Office Complex not being placed until October.

Impact: Monitoring Required (within CAM Management Responsibility).

The favorable CM CV of \$1,872K is reportable:

Description/Cause:

- 1) *Facility and Property Management*, \$813k: is result of the late award of the 2704HV mobile office trailers.
- 2) *Finance Support*, \$598k: is due to the elimination of the monthly B&O tax payment and a pass-back credit for P-Card purchases.
- 3) *Interim Barriers G&A COP Allocations*, \$321k: is a result of point adjustments to move allocations into this new account.

Impact:

- 1) *Facility and Property Management*- Monitoring Required (within CAM Management Responsibility).
- 2) *Finance Support*-Monitoring Required (within CAM Management Responsibility).
- 3) *Interim Barriers G&A COP Allocations*- Monitoring Required (within CAM Management Responsibility).

The favorable CTD CV of \$3,666K is reportable:

Description/Cause:

- 1) *Facility and Property Management*, \$2,274K: is due to the five (5) unfilled janitorial positions, the transfer of Teamsters to MSA contract in August, and the elimination of Occupancy and DOE cost allocations.
- 2) *Finance Support*, \$2,220k: travel under run of \$132K, elimination of Business and occupation (B&O) tax of \$1,567K, P-card pass-back of \$57k, and the continuity of service under run of \$471k.
- 3) *Information Resources Management*, \$1,466K: is due to the need for less computers and workstations as a result a RA staffing delays and the cost reductions from buying printers and plotters from Yucca Mountain.
- 4) *Liquidations*, (\$2,963K): is due to Liquidations of COP and G&A to non-TOC programs not being as high as planned.

Impact:

- 1) *Finance Support*- Monitoring Required (within CAM Management Responsibility).
- 2) *Information Resources Management*- Monitoring Required (within CAM Management Responsibility).
- 3) *Facility and Property Management*- Monitoring Required (within CAM Management Responsibility).
- 4) *Liquidations*- Monitoring Required (within CAM Management Responsibility).

5.02.01 - RETRIEVAL/CLOSURE PROGRAM

September 2009 (\$k)

	BCWS	BCWP	ACWP	SV	SV%	CV	CV%	SPI	CPI	BAC
CM	5,083.7	3,797.7	4,242.8	(1,286.0)	(25%)	(445.1)	(12%)	0.75	0.90	
CTD	34,200.2	33,070.3	30,153.0	(1,129.9)	(3%)	2,917.3	9%	0.97	1.10	165,898.1

Schedule Variance and Cost Variance Analysis

The unfavorable CM SV of (\$1,286K) is reportable:

Description/Cause:

- 1) *Retrieval Technology Development*, (\$650K): is a result of completing all major milestones earlier than planned to reduce risk. This was accomplished because the MARS design build contractor and fabricator worked extended work weeks and shipped components to outside companies.
- 2) *Retrieval Program Mgmt*, (\$320K): is a result of Radiological Instrument Upgrades and the Continuous Air Monitors (CAMs) not being received by FYE. There was a delay in ordering these items due to reduced material coordinator and engineering support due to other higher priority work and long lead times.
- 3) *Interim Barrier*, (\$167K): is a result of long lead time of direct push materials and the need for Ground Penetrating Radar (GPR) data in TY Barrier causing the remaining of the FY 09 work scope to become "carry over."

Impact:

- 1) *Retrieval Technology Development*- Monitoring Required (within CAM Management Responsibility).
- 2) *Retrieval Program Mgmt*- Monitoring Required (within CAM Management Responsibility).
- 3) *Interim Barrier*- Monitoring Required (within CAM Management Responsibility).

Monitoring:

- 1) *Retrieval Technology Development*- closed.
- 2) *Retrieval Program Mgmt*- Two (2) of the five (5) CAMs and two (2) of four (4) remaining items in the Radiological Upgrade activity arrived and were accepted in September. The dosimeters were received, but not accepted since they lacked a part and had to be returned to the vendor. They are now expected in October.
- 3) *Interim Barrier*- The activities identified as "carryover" will be completed during the first quarter of FY 10. The appropriate performance will be recorded as the activities are accomplished.

The unfavorable CM CV of (\$445K) is reportable:

Description/Cause:

- 1) *Interim Barrier*, (\$223K): is a result of over- reported performance in August and cost being experienced in September.
- 2) *244-CR Vault*, (\$183K): is due to the additional A/E support required for structural calculations and pump testing at Cold Test Facility.

Impact:

- 1) *Interim Barrier*- Monitoring Required (within CAM Management Responsibility).
- 2) *244-CR Vault*- Monitoring Required (within CAM Management Responsibility).

Monitoring:

- 1) *Interim Barrier*- Closed.
- 2) *244-CR Vault*- Funding was provided to adequately fund the account for FY 09.

5.02.02 - SST RETRIEVAL EAST AREA

September 2009 (\$k)

	BCWS	BCWP	ACWP	SV	SV%	CV	CV%	SPI	CPI	BAC
CM	1,688.9	1,496.1	3,405.5	(192.8)	(11%)	(1,909.4)	(128%)	0.89	0.44	
CTD	22,175.6	21,674.7	26,670.0	(500.9)	(2%)	(4,995.3)	(23%)	0.98	0.81	217,300.6

Schedule Variance and Cost Variance Analysis

The unfavorable CM SV of (\$193K) is reportable:

Description/Cause:

- 1) *C-110 Retrieval*, (\$833K): is due to the acceleration of C-110 Construction and Retrieval Operations. Monthly BCWS is now appearing for work that has already been accomplished.
- 2) *C Farm Infrastructure*, \$394k: is a result of performing AN-101 and AY-101 construction activities that were scheduled for prior months.
- 3) *C-104 Retrieval*, \$331K: is a result if performing construction and startup activities that were scheduled for prior months.

Impact:

- 1) *C-110- Monitoring Required* (within CAM Management Responsibility).
- 2) *C-Farm Infrastructure- Monitoring Required* (within CAM Management Responsibility).
- 3) *C-104- Monitoring Required* (within CAM Management Responsibility).

The unfavorable CM CV of (\$1,909K) is reportable:

Description/Cause:

- 1) *C-104 Retrieval*, (\$1,529K): is due to the troubleshooting and repair of the Slurry Pump Hydraulic Power Unit electrical problems, the troubleshooting and repair of the Supernatant Flow Control Valve wiring, and the repair and retesting of the control console wiring for sluicer. Additionally, overtime for completion of construction and construction testing has increased actual costs.
- 2) *C-111 Retrieval*, (\$304k): is due to unplanned testing of pumps. Additional costs in planning and construction due to obstructions found in Riser-7 preventing installation of the spray wand.

Impact:

- 1) *C-104 Retrieval- Monitoring Required* (within CAM Management Responsibility).
- 2) *C-111 Retrieval- Monitoring Required* (within CAM Management Responsibility).

The unfavorable CTD CV of (\$4,995K) is reportable:

Description/Cause:

- 1) *C-104 Retrieval*, (\$6,273K): related to increased planning and preparatory work required to complete 04-A jumper removal, pump removal / disposal, and sluicer installation due to impacts from high radiation readings in the 04-A pit and added costs for 04-B pit water removal. In addition, compliance with Commercial Grade Item Dedication (CGID) has resulted in additional labor and material costs for rework of Quality Assurance Inspection Plans, including rigorous inspections and travel to vendor facilities. The CGIDs are required for the acceptance and/or re-procurement of Safety Significant components in jumper and other system assemblies. Additionally, overtime for completion of construction and construction testing has increased actual cost.

2) *C-110 Retrieval, \$1,663k*: due primarily to efficiencies captured during C-110 retrieval (Actual slurry volume loading by percent was much higher than the model predicted resulting in additional cost savings).

Impact:

- 1) *C-104 Retrieval*- Monitoring Required (within CAM Management Responsibility).
- 2) *C-110 Retrieval*- Monitoring Required (within CAM Management Responsibility).

Monitoring:

- 1) *C-104 Retrieval*- Cost variance should decrease when system is turned over to Operations and sluicing operations are initiated in October.
- 2) *C-110 Retrieval*- None.

5.02.03 - SST RETRIEVAL WEST AREA

September 2009 (\$k)

	BCWS	BCWP	ACWP	SV	SV%	CV	CV%	SPI	CPI	BAC
CM	159.6	316.0	210.1	156.4	98%	105.9	34%	1.98	1.50	
CTD	711.8	711.8	580.0	0.0	0%	131.7	19%	1.00	1.23	3,422.9

Schedule Variance and Cost Variance Analysis

The favorable CM SV of \$156K is reportable:

Description/Cause: due to transition of the S-102 Liquid Detection Monitoring (LDM) Equipment from the vendor to WRPS in September. The performance measurement baseline targeted equipment receipt in June.

5.03.01 - WTP FEED DELIVERY PROGRAM**September 2009 (\$k)**

	BCWS	BCWP	ACWP	SV	SV%	CV	CV%	SPI	CPI	BAC
CM	1,225.4	981.6	1,285.6	(243.8)	(20%)	(304.0)	(31%)	0.80	0.76	
CTD	9,725.7	9,650.9	7,892.7	(74.9)	(1%)	1,758.1	18%	0.99	1.22	99,093.1

Schedule Variance and Cost Variance Analysis

The unfavorable CM SV of (\$244K) is reportable:

Description/Cause: is primarily due to the delay in starting the extensive large crane work activities at the request of the CTF facility manager in support of removing Demonstration Bulk Vitrification System (DBVS) equipment.

Impact: Monitoring Required (within CAM Management Responsibility).

Monitoring: CAM will work with the CTF facility manager to reschedule the crane for October.

The unfavorable CM CV of (\$304K) is reportable:

Description/Cause:

- 1) *Demobilization of DBVS, (\$220K):* is a result of contract negotiations with Impact Services and Intermech to lower their cost and the crane delays at CTF resulted in higher contract support cost.
- 2) *Tank Waste Database Management, (\$173):* is due to procuring new production and development servers for the Tank Waste Information Network System (TWINS) system at an 80% discount to our original estimates by purchasing through Pacific Northwest National Laboratory (PNNL) (who get a bulk discount on servers) and procured ESP thermodynamic software at a discount to the original price by accepting a personal computer license rather than a network license.

Impact:

- 1) *Demobilization of DBVS-* Monitoring Required (within CAM Management Responsibility)
- 2) *Tank Waste Database Management-* Monitoring Required (within CAM Management Responsibility)

The favorable CTD CV of \$1,758K is reportable:

Description/Cause:

- 1) *RA – WFD Tank Mixing & Sampling, \$527K:* is a result of a \$380K transfer to SRNL for the Bench Scale Demonstration which doesn't get captured as actual cost (ACWP); and the Small Scale Mixing Demonstration Plan completed significantly under originally estimated \$300k value due to excellent participation and progress made during the mixing workshop.
- 2) *RA–AWA Project Planning and Mobilization, \$428K:* is due to RPP Mission Analysis delays to resolve technical and cost evaluations before issuance of the contract; therefore very little cost was incurred during the mixing workshop. Due to the uncertainties of the work scope, the Project Managers delayed hiring staff.
- 3) *WFD Technology Development, \$275K:* is a result of a \$150K transfer to SRNL and additional labor was not required to support subcontract work tasks due to the high quality of the subcontract work products.

Impact:

- 1) *RA – WFD Tank Mixing & Sampling-* Monitoring Required (within CAM Management Responsibility).
- 2) *RA – AWA Project Planning and Mobilization-* Monitoring Required (within CAM Management Responsibility). Closed.
- 3) *WFD Technology Development-* Monitoring Required (within CAM Management Responsibility). Closed.

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: Complete. ORP and Ecology met on July 21, 2009 to discuss completed FY2008 interim measures:
Future interim measures were discussed.
- **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.
- **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.
- Continued the joint process with Ecology and other regulatory agencies and stakeholders to define the inputs, approaches, assumptions and methods that will be used for development of a performance assessment for Waste Management Area C.
- Submitted the TY Barrier design to Ecology for approval, prior to initiating barrier construction.

III. Significant Planned Actions in the Next Six Months:

- Continue direct push campaign in C Farm.
- Initiate SGE data collection at one additional UPR site in C Farm.
- Initiate well-to-well SGE survey of A and AX Farms to support evaluation of a potential future barrier site.
- Initiate additional direct push sampling in S Farm based on findings of SGE analysis of SX data, to support evaluation of a potential future barrier site.

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. (The draft consent decree has been modified to include changes to the dates for these milestones.)

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 retrieval commenced using modified sluicing in compliance with a TWRWP approved by Ecology on 7/3/08. C-111 will have retrieval performed using modified sluicing in compliance with a TWRWP submitted to Ecology on 5/28/09.)
- 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

-
- . Removed the burst disk from Slurry pump discharge jumper in C-104 04B pit.
- Completed CCD1b exceptions for the AN-101 and C-104 Waste Retrieval System.
- Completed Hot OAT through recirculation, and authorized initiation of AN-101 decant transfer.
- Continued C-108 heel sample analysis at 222S laboratory.
- Continued MARs Phase II testing at Cold Test Facility.
- Continued removal of legacy equipment from C-111

III. Significant Planned Activities in the Next Six Months

- Begin retrieval of C-104.
- Award C-111 construction contract for retrieval system installation.
- Analyze C-108 heel.
- Complete phase II testing of MARs.
- Commence design of C-107 Waste Retrieval System (MARs deployment)
- Achieve 'interim stabilized' liquid levels on S-102. Issue interim stabilization documentation.

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 will be completed sometime after December 11, 2009, when public review and comment on the newly proposed Consent Decree is complete.

C-FARM RETRIEVAL SUMMARY SCHEDULE FORECASTS ^a

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	4/1/11	3/23/12	4/8/12	5/8/12	8/11/14	7/11/14	1/13/15
C-102	9/30/11	9/20/12	10/2/12	11/2/12	8/19/14	7/19/14	4/16/15
C-103	Complete	Complete	Complete	Complete	Complete	Complete	Complete
C-104	Complete	Complete	Complete	10/23/09	4/15/12	3/15/12	12/7/12
C-105	6/28/11	6/18/12	7/1/12	8/1/12	8/19/14	7/19/14	4/8/15
C-106	Complete	Complete	Complete	Complete	Complete	Complete	Complete
C-107	6/29/10	3/25/11	4/7/11	5/7/11	1/7/13	12/7/12	8/29/13
C-108 ^c	Complete	Complete	Complete	Complete	11/9/10	10/9/10	7/8/11
C-109 ^{cd}	Complete	Complete	Complete	Complete	12/21/11	11/21/11	8/16/12
C-110	Complete	Complete	Complete	Complete	8/21/11	7/21/11	4/17/12
C-111	Complete	5/20/10	6/3/10	7/3/10	1/21/13	12/21/12	9/13/13
C-112	8/16/10	8/5/11	8/20/11	9/20/11	4/22/13	3/22/13	2/13/14
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 stated October month-end Integrated Mission Execution Schedule (IMES) as of 10/28/09 and the Near Term Baseline Schedule (NTBS) and are subject to change as efforts continue to identify and implement schedule efficiencies.
- 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.

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. See discussion below under "Issues".
- **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

The proposed TPA milestone, M-62-40, appears to supersede and provide an expanded set of information and data when compared to the requirements of the M-45-02 series milestones. To develop and submit the M-45-02O deliverable requires the same resources that are required to develop and submit the M-62-40 deliverable. In order to meet the proposed M-62-40 milestone due date, resources must be allocated to the development of the deliverable at this time,

which would preclude the development of the M45-02O deliverable. Ecology and ORP are discussing a resolution to this issue.

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: At Risk. 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

- Continued to operate the S-102 exhauster to reduce the volume of supernatant liquid in the tank. An October 20, 2009, video review of the tank has shown that the supernatant liquid volume is approximately 3,000 to 4,000. This is below the criteria for interim stabilization of less than 5000 gallons supernatant liquid.

III. Significant Planned Activities in the Next Six Months

- Continue to operate the S-102 exhauster. Issue interim stabilization documentation.

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 is held in abeyance by third amendment to the Consent Decree. ORP's obligation to interim stabilize S-112 was satisfied upon completion of retrieval operations. Retrieval of S-102 has been impacted by the spill at this tank. A video taken in S-102 in November 2008 indicated the tank supernatant liquid probably exceeded the 5,000 gallons maximum for a tank to meet IS criteria. The exhaustor on the tank was restarted to induce evaporation of the water from the liquid pool.

II. Significant Accomplishments:

Continued to operate the S-102 exhaustor to reduce the volume of supernatant liquid in the tank. As of 10/20/2009, it is estimated that the supernatant liquid pool is about 3,000 to 4,000.

The Fourth Quarter Quarterly Interim Stabilization Report for 2009 was submitted on 10/28/09, under letter, 09-TPD-124.

III. Significant Planned Actions in the Next 6 Months:

Continue to operate the S-102 exhaustor. Issue S-102 interim stabilization documentation.

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 October 1 – October 31, 2009:

I. Accomplishments:

- Completed the data review for tank 241-AN-106 document RPP-RPT-42085, Rev. 0 on October 7, 2009.
- Completed grab samples in tank 241-AN-102 for corrosion mitigation on October 22, 2009.
- Completed and issued RPP-CALC-42733, *Determination of Single-Shell Tank Waste Volume as a Function of Waste Level (B, C, T, and U Farm 100 Series Tanks)*, Rev. 0, on October 21, 2009.
- Completed and issued RPP-RPT-39601, *Determination of Residual Waste Volume by Liquid Displacement*, Rev. 1, on October 20, 2009.

II. Planned Action within the next Six Months:

- Tank Sampling
 - Tank 241-AZ-102 liquid grab samples scheduled for November 2009.
 - Tank 241-AP-107 evaporator grab samples scheduled for December 2009.
 - Tank 241-AY-101 liquid grab samples scheduled for December 2009.
 - Tank 241-AN-101 mid C-104 retrieval samples scheduled for December 2009.
 - Tank 241-AZ-101 corrosion mitigation liquid grab samples scheduled for January 2010.
 - Tank 241-AN-103 corrosion mitigation liquid grab samples scheduled for March 2010.
- BBI Updates
 - Five tank updates are planned for the first quarter of fiscal year 2010.
 - The update of one of the five tanks is complete.
 - All five tank updates have been started.
- Data Quality Objectives (DQO)
 - Complete revision 4 of the SST Component Closure DQO in December 2009.
 - Complete revision 0 of the Interim Tank Farm Barrier DQO in December 2009.
 - Complete revision 0 of the Mission Analysis/Strategic Planning DQO in February 2010.

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)

242-A Campaign strategy update. Since this is a major change a summary of changes follows:

- FY10. 1 campaign using AW-106 as the feed and slurry tank. This waste requires 2 passes to achieve forecast waste volume reduction.
- FY11. 2 campaigns with feed from AP-107 and AZ-102. Slurry tanks will be AP-104/AP-107.
- FY12. 1 campaign with feed from AY-101 and slurry to AP-107. This campaign replaces a Cold Run in the baseline.

This strategy change was necessary to support planned upgrades to the transfer system and 242-A Evaporator that are scheduled to be completed in FY10-11. Strategy changes result in a net increase in available tank space (Cold Runs increase waste in AW-102 by 25-40 inches.)

Fiscal Year	Campaign No.	Feed Source	Slurry Tank	Comments
FY09	09-01	AP-101/ AP-105	AP-104	Entered OPERATION MODE on 3/17/09 and returned to SHUTDOWN MODE on 6/25/09. Campaign 09-01/09-02
FY09	09-02	AP-101/ AP-105	AP-104/ AP-101	processed approximately 2.1mgal of DST waste achieving 948kgals (45%) waste volume reduction.
FY10	10-01	AW-106	AW-106	Planned start March 2010.
FY11	11-01	AP-107	AP-104	Planned start March 2011. Campaigns 11-01 and 11-02 to be performed back-to-back
FY11	11-02	AZ-102	AP-104/ AP-107	
FY12	12-01	AY-101	AP-017	Planned start March 2012.

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: Complete.
- **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:

- None to report.

IV. Issues:

- None.

Hanford Waste Treatment and Immobilization Plant (WTP) Project

There are about 3,050 FTE equivalent contractor [Bechtel National Inc. (BNI)] and subcontractor personnel working on the WTP Project, with about 840 craft, 390 non-manual, and about 150 subcontractor personnel FTE equivalents working at the WTP construction site (all facilities). Overall project percent complete through September 2009 is 51%, design and engineering is 77% complete, and construction is 47% complete.

The overall WTP Project cost performance was again positive in September (+\$3.9M); however, the schedule performance was negative (\$4.7M) for the second time in several months. The monthly cost and schedule performance was mostly positive for engineering and construction; however, the cost and schedule performance for Plant Equipment and Plant Materials was negative.

Following is the status through the end of October for issues under evaluation for opportunities to reduce design complexities:

Material at Risk (MAR)

Based on recommendations by the Material at Risk (MAR) team chartered in December 2008, ORP and BNI have evaluated team recommendations that could result in reclassification of systems that would allow removing unnecessary complexity in the control strategy, while still maintaining safety commensurate to the risk. The MAR Integrated Change Package (ICP) consists of a Preliminary Documented Safety Analysis (PDSA) Addendum, page changes to Chapters 2, 3, 4, and 5 referencing the addendum and proposed changes to the Safety Requirement Document (SRD) design criteria for Hydrogen in Piping and Ancillary Vessels (HPAV). The ICP was submitted by BNI on October 21, 2009, and amended on October 29, 2009 that addressed DOE comments. The Safety Evaluation Report (SER) was approved by the Manager, ORP on October 31, 2009, with four Conditions of Acceptance. The results of the ICP approval enables elimination of many active process controls located outside of the hot cell and reclassification of several Safety Class controls to Safety Significant while retaining a core set of Safety Class controls sufficient to ensure safety for the public and the workers. ORP

considers these changes essential to ensuring a more reliable PTF that is critical to fulfilling the tank waste treatment mission, the cornerstone to the cleanup of tank waste at Hanford.

Hydrogen in Piping and Ancillary Vessels (HPAV)

Based on recommendations by the HPAV team chartered in February 2009, ORP and BNI have evaluated 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 2008 HPAV testing, including the conclusion that piping 4 inches and less will not fragment eliminating secondary effects of many components. Additional testing in 2009 to evaluate the impact of HPAV for piping sizes larger than 4-inch, and analyzing minimum detonable gas volumes and geometries is in progress and scheduled to complete in late November 2009. In addition, confirmatory testing by California Institute of Technology is being conducted through December 2009, with a report anticipated by the end of January 2010.

DOE-STD-1066

The WTP authorization basis invokes DOE-STD-1066, Fire Protection Design Criteria, which includes requirements in Section 14 for fire protection features within nuclear facility ventilation systems to protect high-efficiency particulate air (HEPA) filters from damage during a facility fire. The radial flow HEPA filter configuration used in the WTP ventilation systems does not support explicit compliance with DOE-STD-1066-99. The WTP design is based instead on facility-specific fire hazard analyses and the Integrated Safety Management process.

BNI developed and submitted to ORP an alternative design option that provides comparable safety and mission protection as allowed by DOE-STD-1066, and in accordance with DOE Order 420.1B. The alternate approach does not provide all of the fire protection features prescribed in Section 14 of DOE-STD-1066, but does provide multiple levels of fire protection features that adequately protect final HEPA filters from fires.

The alternate approach was identified by ORP as a gap in implementation of DNFSB Recommendation 2004-2, Active Confinement Ventilation Systems. DOE-EM accepted the gap analysis in July of 2009. ORP then directed BNI to implement the alternate approach in the

authorization basis documents and the design. BNI has completed its implementation of the alternate approach in the Authorization Basis. ORP is currently reviewing BNI's implementation.

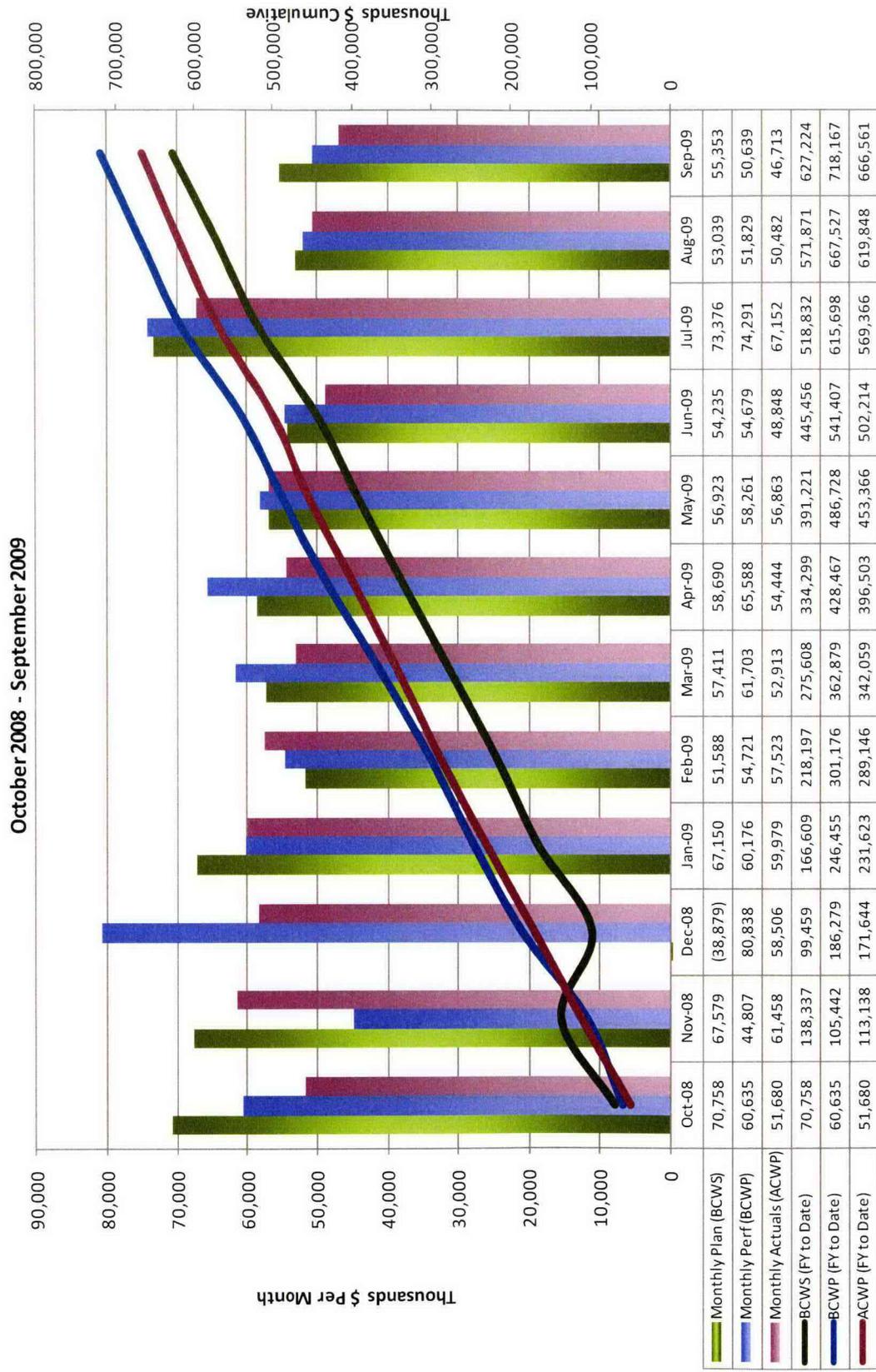
Recent Issues:

Vendor Commercial Grade Dedication (CGD) Issue Extent of Condition (EOC) Review:

An evaluation of the BNI vendor commercial grade dedication program (CGD) revealed that CGD requirements were not adequately communicated by BNI suppliers to their sub-suppliers. BNI placed all deliveries on hold and performed a systematic evaluation of all suppliers and their sub-suppliers.

Of the 56 Active Vendors and 31 Inactive Vendors fewer than six EOC reviews remain. It is anticipated that by the end of November the full extent of dedication concerns will have been identified. To date, there are no impacts to construction, and ORP continues to closely monitor BNI's efforts to identify vendor CGD problems and address WTP indeterminate quality materials. With the completion of these reviews, the remaining risk of having materials and equipment of indeterminate quality is approaching zero.

WTP – Fiscal Year To-Date Performance



Pretreatment (PT) Status for October 2009 (September 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 47%, engineering/design is 77% complete, and construction is 27% complete.

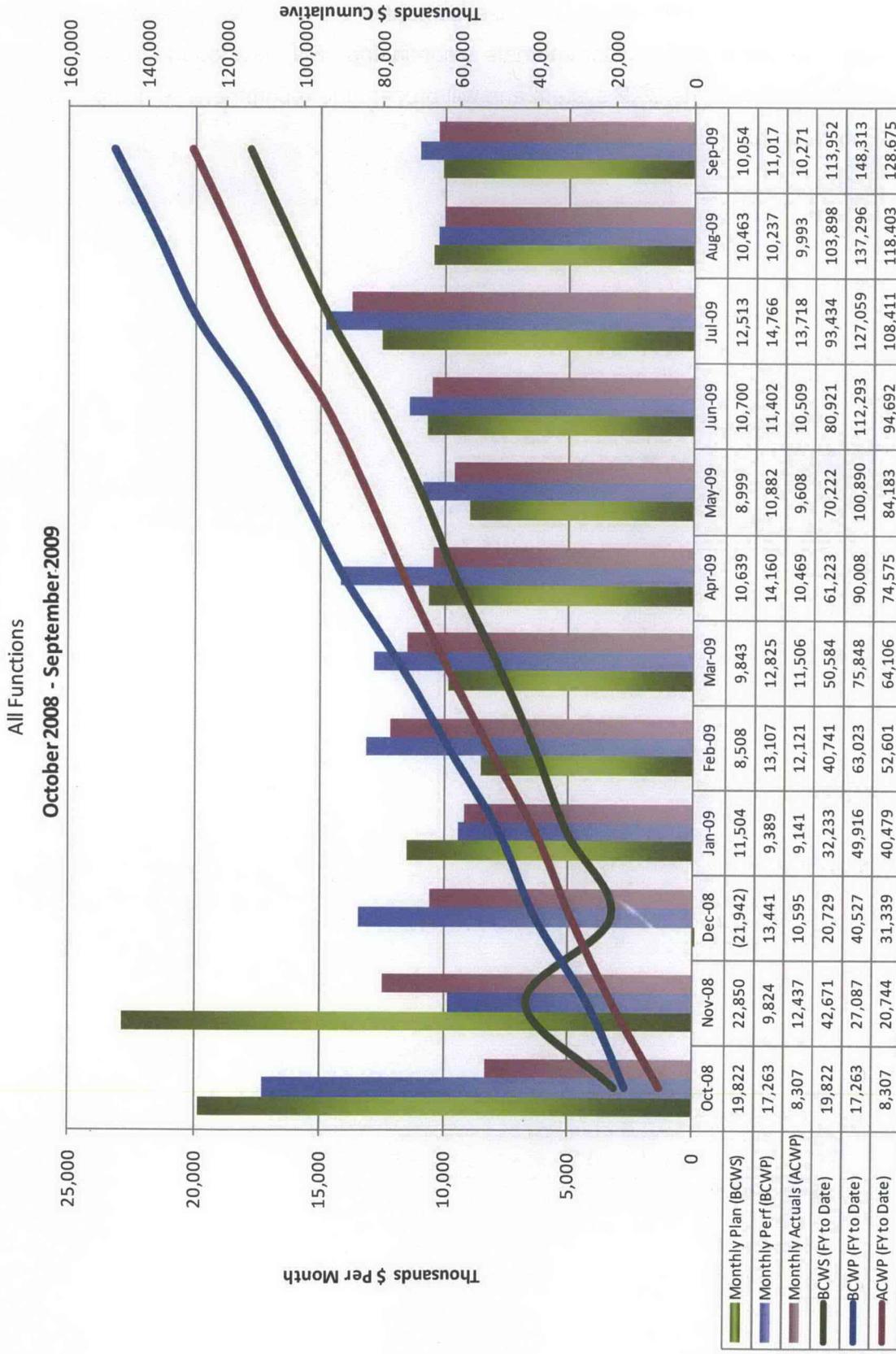
Construction installations for the month include 610 cubic yards (CY) of concrete, 219 tons of rebar, 49,899 lbs of embeds and over 81 tons of tier-3 structural steel. Due to concerns regarding Vendor Commercial Grade Dedication (VCGD), construction faced additional material verifications before installation, which had minor impact on placements. The first concrete slab for the 77 foot elevation was placed on October 30th, representing a major step forward in facility construction. By enclosing portions of the 56 foot elevation, the next phase of commodity installation can begin. In addition, it establishes a platform to initiate structural steel and wall fabrication above the 77 foot elevation. Rebar and embed installation continues at the 77 foot elevation and two additional slabs are scheduled for placement in November. Structural steel installations and concrete placements are ongoing at the 56-ft elevation, and steel erection in Zone 6 is underway ten months ahead of the scheduled start date. Black Cell piping installation has restarted in Planning Area 01-D ahead of schedule. Installation of HVAC ductwork, fabrication of rebar curtains, erection of scaffolding, and the installation of grounding are key on-going efforts.

Two hundred fifty-eight piping isometric drawings were issued this month. Current engineering efforts are focused on planning areas with critical path schedules to minimize the impacts of MAR/HPAV implementation. BNI engineering was authorized to continue design activities for MAR/HPAV components until November 30 without an increase in the amount of currently authorized funding. Additionally, conceptual designs for jumper/framing in the hot cell have been advanced to facilitate system integration with the piping and equipment design and reduce procurement risks.

Closure of the EFRT M3 issue did not occur prior to the end of FY2009 as previously reported and is currently scheduled for April 2010. Early tests indicated that some of the vessels may need modifications and test plans to identify specific modification requirements are being reviewed. BNI conducted an engineering analysis to identify potential resolutions for the

reboiler condensate contamination issue and delivered the proposed design solution to ORP engineering personnel for review. ORP assessment of the lifecycle operation and maintenance for evaporator vessel and rectifier internals is continuing. BNI developed a risk mitigation plan for solids formation in the CXP system and will present the recommended design improvements to ORP in November 2009.

Pretreatment Facility - Fiscal Year To-Date Performance



High-Level Waste (HLW) Facility Status for October 2009 (September 2009 EVM Data)

The HLW Facility will receive the high-level waste fraction from the Pretreatment (PT) Facility. The concentrate is sampled and analyzed to determine the optimum blend of glass formers to add to the waste that will produce a vitrified waste form that is compliant with disposal requirements and also meets the required production rate. The blended slurry is converted into molten glass in one of the two HLW melters, and then poured into cylindrical stainless steel canisters for cooling. The canisters are sealed and moved to a decontamination cell where any surface contamination is removed prior to shipment to interim or final storage. HLW engineering/design is 82% complete and construction is 23% complete. The overall facility completion is 47% complete.

A major focus of the HLW Team is the effort to relocate the Secondary C5V filters from the Filter Cave to a room above at the 37 foot elevation. The secondary filters are being moved as one of the conditions to demonstrate a comparable level of safety as delineated in DOE-STD-1066 Section 14, *Nuclear Filter Plenum Fire Protection*, and allows manual filter changes if the primary filters are loaded and/or destroyed by a fire in the facility. The Filter Cave components (C5V/PJV/HOP) and associated ducting must be placed by crane "over the top" of the surrounding Filter Cave walls prior to the placement of slab 3027 at the 37 foot elevation above, which is scheduled for May 2012. In order to track these multiple and complex activities and maintain schedule, the HLW Team has developed a detailed Level-5 schedule which is reviewed by Management, Engineering, Procurement, and Construction on a weekly basis.

Engineering activities in October included the issuance of steel calculations and drawings for main structural steel above the 58 foot elevation, spacing verifications for joggles above the 37 foot elevation; specifications for the melter feed system demisters, air ejectors, and overflow flapper valves; as well as over 200 piping isometrics (equivalent to 2100 lineal feet of piping). In addition, model reviews were conducted for the Chilled Water (CHW) and HLW Melter Process (HMP) systems. In November, Filter Cave redesign efforts will mature to the point that the HEPA filter housing vendor will be released to begin engineering design activities on the filter housings.

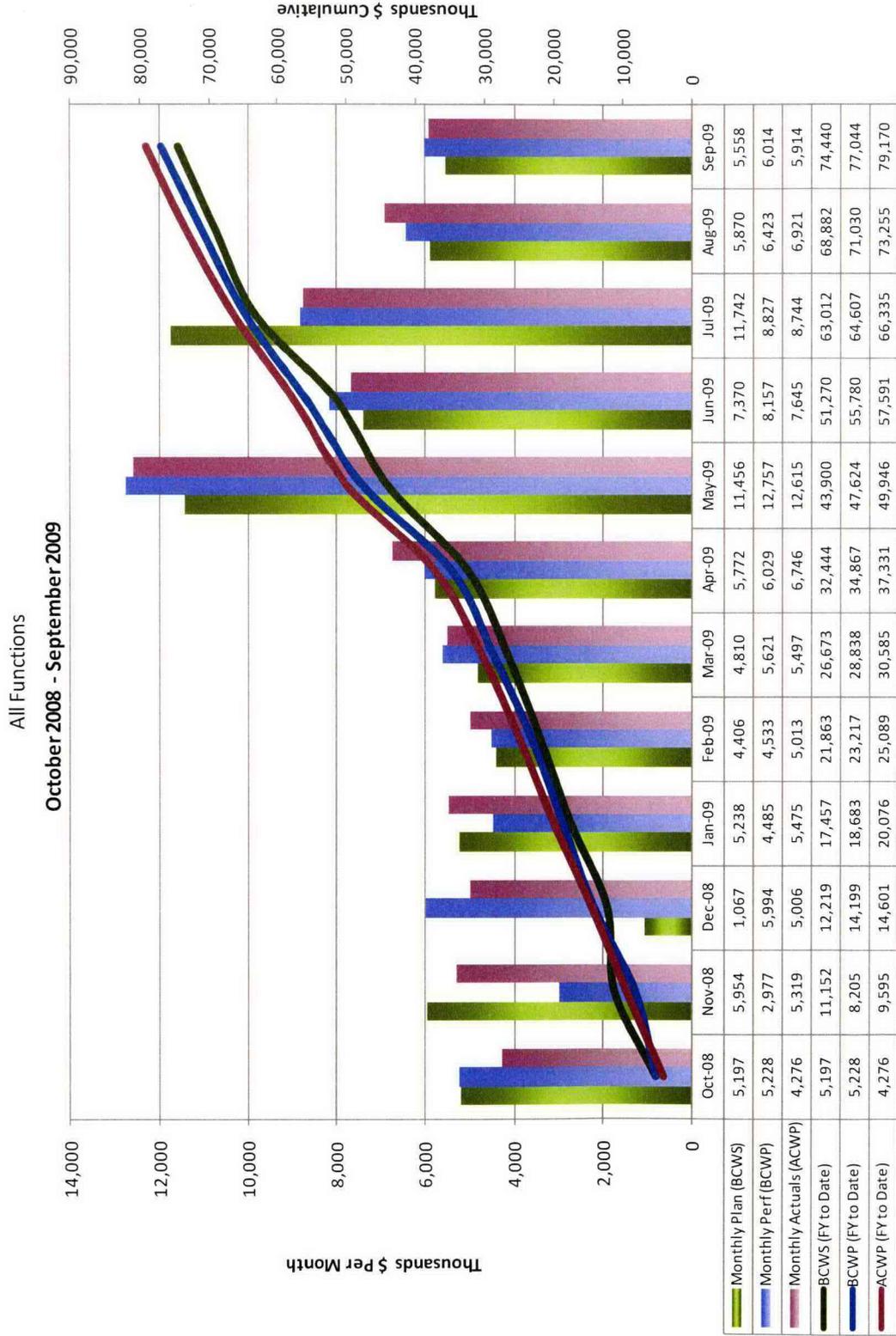
Construction forces placed a total of 285 cubic yards (CY) of concrete in October. At the 14 foot elevation, wall 2114 (at the north end of the Filter Cave), walls 2108 and 2109 (interior walls for the Annex), and slab 2021A (at southeast corner of building). The four placements completed in October were less than the recovery goal of six. Construction continues to strive to maintain their production goals completing nineteen of the twenty-one placements scheduled since July. For November construction has forecast completion of four placements including wall 1147, the final wall in the facility from elevation 0' to +14'.

- At the -21 foot elevation, Construction crews continued: the installation of cable tray and piping; aligning and installing bogie rails and supports in the Canister Storage Transfer and Cask Handling tunnels; the fabrication and installation of HVAC ductwork and fire dampers; the application of coatings; and, the restart of liner plate installation.
- At the 0 foot elevation, crews continued to install slab and wall rebar, embeds, wall forms, structural steel and decking, and piping supports.
- At the 14 foot elevation, crews continued to: erect structural steel and decking; install wall and slab rebar; and, install embeds, joggles and formwork for multiple walls and slabs.

Near-Term *Proposed* Consent Decree Milestones:

Project	Description	Specified Completion Date	Current Schedule Date
A-20 Interim	Complete Construction of Structural Steel to Elevation 14' in HLW Facility	12/31/2010	2/22/2010

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



Low-Activity Waste (LAW) Facility Status for October 2009 (September 2009 EVM Data)

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 67%, design is 91%, and construction is 56%.

In the month of October, Construction completed installing the anchors for the high-efficiency particulate air filters. Construction continued: installation of piping and hangers, grillage and insulation in the pour caves, conduit, perimeter sealants, and metal-stud framing; erecting wall support steel for the elevator on the 3 foot elevation; and, removing the pour cave monorail for cooling panel installation.

BNI Engineering has submitted justification for continued design, procurement, and installation (JCDPI) 24590-LAW-JCDPI-ENS-09-0001, Revision 0, Modification of the LVP [LAW Secondary Offgas/Vessel Vent Process] System, to ORP for review and approval. ORP has reviewed the justification, which is in the final stages of approval. Engineering has also completed control logic diagrams for the instrument service air system, the radioactive liquid waste disposal system and the LAW secondary offgas/vessel vent process system. Additionally, Engineering has completed part two system descriptions for the radioactive solid waste handling and LAW melter handling systems.

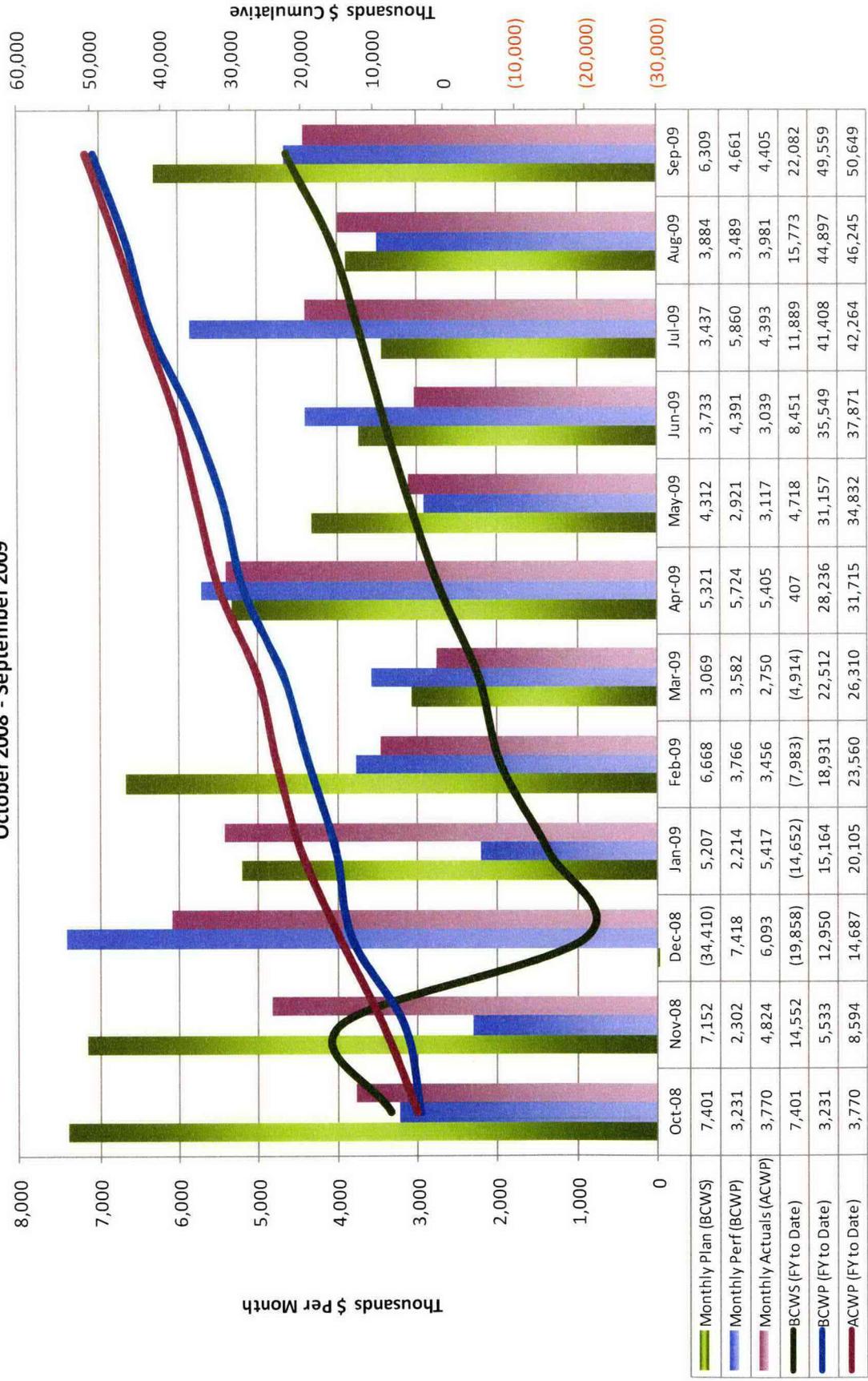
Resolution of technical issue for excessive heat retention in some Melter Pour Cave equipment continues. A high temperature condition has been calculated to occur in certain container handling equipment that could significantly reduce the yield stress of these items. Computational fluid dynamics calculation results will be analyzed for equipment stresses by a subcontractor and if a potential problem remains, design changes will be made to rectify the issue. A kick-off meeting was held with the subcontractor October 5th and expected completion date of the analysis is January 2010.

Upcoming significant planned accomplishments for November include: Completion of HVAC embed capacity checks and issuance of the part two system descriptions for the Container Receipt Handling System and Container Pour Handling System.

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

All Functions

October 2008 - September 2009



Analytical Laboratory (LAB) Status for October 2009 (September 2009 EVM Data)

The LAB will support WTP operations by analyzing feed, vitrified waste, and effluent streams. Overall facility complete for LAB is 47%, design is 79%, and construction is 55%.

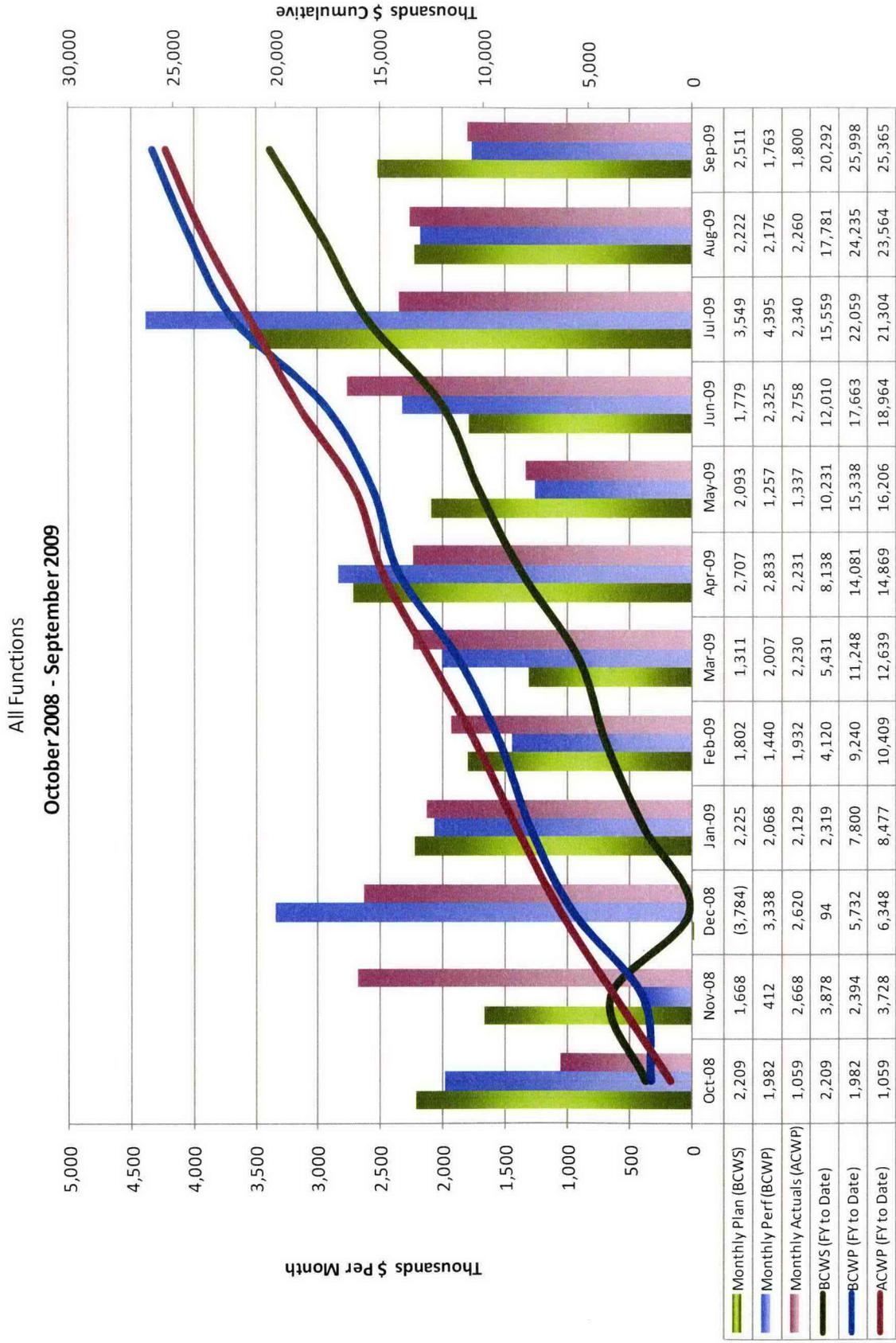
LAB engineering does not currently have any major technical issues and BNI continues to focus on confirmation of design. During October, engineering advanced the confirmation of design documents associated with Plant Service Air, C5V Ventilation, and Breathing Service Air Systems. The engineering SPI and CPI for September were 1.44 and .98, respectively.

During October, Construction completed installing the air tank, compressor, and breathing air skid on the 17 foot elevation. Construction continued installing piping, metal-stud framing, gypsum wall board, ductwork and supports, and steam piping.

Factory acceptance testing of the hotcell waste transfer system was placed on hold due to issues encountered during the test. The factory acceptance testing is scheduled to restart the week of November 9th. Delivery of the hotcell waste transfer system is now scheduled for later in November. The construction schedule is not impacted by the movement of the receipt date of the waste transfer system.

Major accomplishments planned for the next 30 days are completion of factory acceptance testing and delivery of the hotcell waste transfer system.

Analytical Laboratory - Fiscal Year To-Date Performance



Balance of Facilities (BOF) Status for October 2009 (September 2009 EVM Data)

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 52%, design/engineering is 78%, and construction is 55%.

During October, construction completed installing the mechanical air tank at the Glass Former Storage Facility (GFSF) and began pulling cable at the Water Treatment Building. Construction continued installing: scheduled and unscheduled conduit, the fire detection equipment at the Chiller Compressor Plant, drip shield in the Switchgear building and erecting the blend building at the GFSF.

The focus for BOF engineering is design and procurement of the emergency diesel generators and confirmation of engineering design. BNI engineering continues to hold bi-weekly meetings to discuss the progress and path forward for procurement of the emergency diesel generators. The emergency diesel generator preliminary sizing calculation and single line diagrams are schedule for completion in late November.

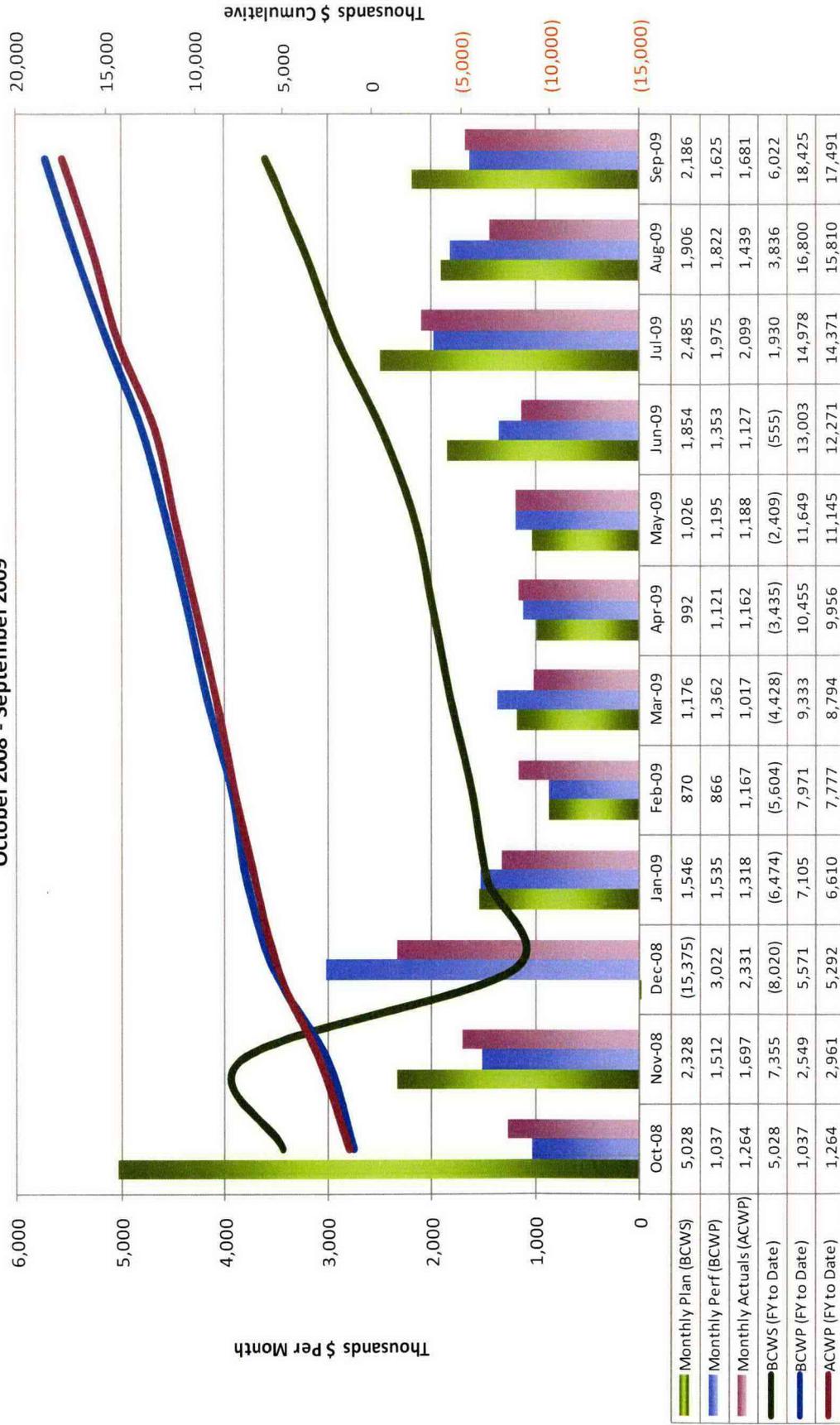
The other main focus area is the extent of condition piping excavations for underground piping corrosion. BNI has completed the extent of condition excavations. Nine of the 11 excavation sites exhibited coating defects of varying degrees. BNI engineering is evaluating the results and plans to present a proposed path forward to ORP in early 2010.

Major accomplishments scheduled for the next 30 days are completion of the preliminary sizing calculations and single line diagrams for the emergency diesel generator.

Balance of Facilities - Fiscal Year To-Date Performance

All Functions

October 2008 - September 2009



Waste Treatment Plant Project - Percent Complete Status Through September 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
Facilities									
Low-Activity Waste	1,658.6	1,112.4	67%	205.1	186.5	91%	290.2	161.9	56%
Analytical Lab	632.2	294.7	47%	48.6	38.2	79%	85.9	47.0	55%
Balance of Facilities	981.9	507.9	52%	68.0	52.9	78%	214.3	118.6	55%
High-Level Waste	2,573.8	1,221.4	47%	314.3	256.5	82%	508.0	114.9	23%
Pretreatment	4,061.4	1,904.5	47%	569.0	438.5	77%	816.7	222.4	27%
Shared Services	incl. above	incl. above	incl. above	1,059.2	768.8	73%	1,331.5	847.0	64%
Undistributed Budget	9.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total WTP	9,916.9	5,040.9	51%	2,264.2	1,741.4	77%	3,246.6	1,511.8	47%

Source: WTP Contract Performance Report

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

WTP Project - KEY COMMODITY QUANTITY PROGRESS				
Commodity	Unit of Measure	Current Forecast at Completion Quantity	Installed through September 2009	Percent Complete
Concrete	1000 cy	262.30	190.43	72.6%
Structural Steel	1 ton	38,586	14,314	37.1%
Piping (in buildings)	1000 lf	901.73	162.82	18.1%
Piping (underground)	1000 lf	116.01	95.67	82.5%
HVAC Duct	1000 lbs	4,298.96	1,034.96	24.1%
Cable Tray	1000 lf	97.79	20.47	20.9%
Conduit (in buildings)	1000 lf	1,001.64	106.28	10.6%
Conduit (underground)	1000 lf	192.91	176.16	91.3%
Cable and Wire	1000 lf	4,934.77	251.22	5.1%