

**Tri-Party Agreement Milestone Review – Office of River Protection**  
**May 25, 2004**  
**Meeting Minutes**

**0062549**

Approval: *Michael A. Wilson*  
 Michael A. Wilson (HO-57)  
 Ecology IAMIT Representative

Date: 7/7/04

Approval: *Joel B. Hebdon*  
 Joel B. Hebdon (A5-12)  
 RL IAMIT Representative

Date: 7/23/04

Approval: *James E. Rasmussen*  
 Jim E. Rasmussen (H6-60)  
 Chairman and ORP IAMIT Representative

Date: 7/14/04

Approval: *Nick Ceto* for Nick Ceto  
 Nick Ceto (B5-01)  
 EPA IAMIT Representative

Date: **RECEIVED**  
 AUG 24 2004

Minutes Prepared by:  
 Approval: *Eileen J. Murphy-Fitch*  
 Eileen J. Murphy-Fitch (A4-25)  
 Fluor Hanford, Inc.

**EDMC**

Date: 6/30/04

Almaraz, A.	INNOV	H6-60*	Hertzel, J. S.	FH	A4-25
Aromi, E. S.	CH2M	H6-63	Jackson, D. E.	RL	A4-52
Bartus, D.	EPA	HO-57*	Jackson, G. W.	FH	H5-20
Bird, J.	RL	A2-15	Jarayssi, M. N.	CHG	H6-03
Brown, M.	Ecology	HO-57*	Jentzen, B.	Ecology	HO-57*
Buxbaum, M.E.	FH	B3-53	Jim, R.	YIN	
Caggiano, J. A.	Ecology	HO-57	Keggen, D.	Ecology	HO-57*
Callahan, V.	ORP	H6-60	LaMont, P.	ORP	H6-60
Clark, C. E.	RL	A5-15*	Lijek, S. J.	DPTEC	HO-57
Clark, D.	ORP	H6-60	Liou W.	ORP	H6-60
Cusack, L.	Ecology	HO-57*	Lober, R.	ORP	H6-60
Dahl, S.	Ecology	HO-57*	Long, J.	ORP	H6-60
Derrick, B. L.	Ecology	HO-57	Louie, C. S.	ORP	H6-60*
DeWitt, K.	Ecology	HO-57	Lyon, J.	Ecology	HO-57*
Dixon, B. T.	CH2M	R1-51	Mauss, B.	ORP	H6-60*
Duncan, G. P.	CH2M	R3-76	Miller, P.	CH2M	R1-51
Eschenberg, J.	ORP	H6-60*	Morrison, R. D.	FH	A4-25*
Fowler, S. B.	CH2M	H6-22*	Murphy-Fitch, E. J.	FH	A4-25*
Gallagher, R.	FH	H5-20	Niles, K.	ODE	
Harris, S.	CTUIR		Navarro, J.	ORP	H6-60
Hebdon, J.	RL	A5-12*	Olinger, S.	RL	A3-04
Hedges, J.	Ecology	HO-57*	Piippo, R. E.	FH	A4-25
Heggen, D.	Ecology	HO-57	Quintero, R.	ORP	H6-60*
Henry, D.	ODE*		Rasmussen, J. E.	ORP	H6-60
			Ramsay, M.	ORP	H6-60

Rodriguez, H. M.	RL	A5-15	Uziemblo, N. H.	Ecology	HO-57*
Russell, W.	ORP	H6-60*	Voogd, J.	CH2M	S4-43
Singleton, D.	Ecology	HO-57	Vinson, R.	PEC	H6-60
Skinnarland, E. R.	Ecology	HO-57	Yasek, R.	ORP	H6-60
Sobotta, P.	NPTs		Administrative Record	EDMC	H6-08*
Stevens, A.	ORP	H6-60	*w/Attachments		

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Office of River Protection  
Tri-Party Agreement Milestone Review  
May 25, 2004

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Tri-Party Agreement Milestone Performance

Start: 9:02 a.m.

End: 9:19 a.m.

Vapor issues in the tank farms has significantly impacted ORP cost/schedule/scope. During the discussion on the schedule variance, Ecology took exception to the cause of the unfavorable schedule variance for WBS 5.09, *Treat and Dispose of Waste (Excluding Projects)*. Ecology did not agree to an accelerated schedule for the contact-handled transuranic waste (CH-TRU) Packaging Part B RCRA Permit. Waste classification and NEPA play a much bigger role in the unfavorable schedule variance. Ecology requested that future presentations for WBS element 5.09 do not include the permit delay as a major factor in an unfavorable schedule variance/explanation. Assessments were completed by the GAO and COE; results should be available by mid June 2004.

**Action:** Ecology questioned the achievability of M-062-08 on current due date.  
Provide status on M-062-08 to determine if the milestone is recoverable or not.

**Actionee:** Diane Clark

**Action:** Ecology did not agree with the cause for the unfavorable schedule variance (page 19). The Part B strategy was rescoped from a simplistic Research, Development and Demonstration Permit to an extensive Final Part B Permit. Ecology requested that future presentations be modified accordingly.

**Actionee:** Diane Clark

M-062, Complete Pretreatment Processing and Vitrification of Tank Wastes

Start: 9:19 a.m.

End: 9:42 a.m.

The Waste Treatment Plant Project Controls Smart Sheet was distributed and discussed. Progress continues to be made and the project is on schedule and on budget.

M-043-00, Tank Farm Upgrades

Start: 9:42 a.m.

End: 9:49 a.m.

Tank vapor issues and implementation of the respiratory policy, have impacted field work. Recovery Plans will be developed for all field projects.

High radiation/contamination is being found during clean out box (COB) modifications. CH2M is using additional shielding, HPT coverage and glove bag changes to handle the conditions. An AW COB restart plan was developed.

M-046-00, Double Shell Tank Space Evaluation

Start: 09:49 a.m.

End: 09:53 a.m.

DST space scope is being tracked to implement four space optimization recommendations and tank space management efforts:

1. Increase the DS fill heights
2. Reserve emergency space to reflect compliance with DOE Order 435.1 for the DST system (provides 1.1 million gallons of DST space).
3. Implement tank-by-tank evaluations to allow greater concentration of wastes beyond current 1.41 SpG limit.
4. Use space currently as "restricted" space in tanks that contain staged feed for WTP.

Workscope associated with Tri-Party Agreement Interim Milestone M-046-00K is on hold pending finalization of the M-045 public comment period.

M-047, Complete Work Necessary to Support Acquisition and Phase I Operations of Hanford Site High-Level Radioactive Waste Treatment, Storage and Disposal Facilities

Start: 09:53 a.m.

End: 09:58 a.m.

Completed construction acceptance testing of AN Infrastructure diluents/flush system. The contract for fabrication of the AN-101 decant/transfer pump was awarded and the 30 percent design review of the Title II design for the AY-102 Retrieval System was completed.

Tank vapors, implementation of respiratory policy, and the US District Court ruling on W-211 workscope are impacting schedule performance.

Interim Stabilization (Consent Decree)

Start: 10:36 a.m.

End: 10:42 a.m.

Consent Decree Milestone D-001-00, DOE Shall Complete Interim Stabilization of all 29 Single-Shell Tanks, has been completed. Ecology and ORP need to validate the completion of this Tri-Party Agreement Interim Milestone.

Vapor issues could delay issuance of some of packages because some monitoring has to be/continued need to have in the farms. Optimistic it will be completed. Confirm that work is done, meet all the criteria and then close it. Ecology will then validate that the milestone is complete.

**Action:** Parties will agree that interim stabilization of all 299 SSTs is complete

**Actionee:** John Long

M-045-00, SST Closure

Start: 11:22 a.m.

End: 11:46 a.m.

The C-106 Closure Plan will not be approved by Ecology until after the Tank Closure EIS ROD is issued. Due to air respirator requirements in the tank farms, C-106 isolation field work has been delayed into FY 2005.

Retrieval of S-102 was halted pending resolution of WDOH on exhauster operation. Corrective actions are being taken to respond to WDOH requirements for installation of a demister for moisture control. Field work supporting demister installation is on hold pending resolution of vapor issues. Tri-Party Agreement

M-045-06-T20A is proposed for deletion.

There were several significant accomplishments for C-106. Tri-Party Agreement Interim Milestone M-045-05H, *Interim Completion of Tank C-106 SST Waste Retrieval and Closure Demonstration*, will be modified as a result of the M-045 Tri-Party Agreement Change Package currently out for public comment.

**Action:** Meet with Ecology to review the detailed costs for retrieval

**Actionee:** Diane Clark

**Action:** ORP/Ecology meet to discuss expectations for the SST System Implementation Plan. When is it needed, what are ORP and/or Ecology's expectations, etc.

**Actionee:** Kathy Tollefson

M-045-50, 60 SST Corrective Actions

Start: 09:59 a.m.

End: 10:14 a.m.

Progress continues to be made and the work is on schedule. Concern was raised on Tri-Party Agreement Interim Milestone M-024-56 – Ecology acceptance that the workscope is complete.

**Action:** Does M-045-56 require further discussion on the completion of the milestone. The agencies will meet internally and then meet collectively to agree that the workscope is complete.

**Actionee:** Rob Yasek

Incorporation of the new repository procedures for the Tank Farms vadose zone sites and the affect of them on the workscope will be revisited for the vadose zone sites in the Tank Farms.

M-023, Tank Integrity and Monitoring

Start: 10:25 a.m.

End: 10:36 a.m.

FY 2004 deliverables have been met. Tri-Party Agreement Interim Milestone M-023-27, Complete

244-C Liquid Level Assessments, due December 31, 2004, is forecast for on schedule completion. During replacement of the liquid observation well (LOW) in TX-116, the LOW was damaged. The LOW will be removed and a replacement installed following completion of M-023-25 LOW installations. Difficulties in an existing riser resulted in the need to install the replacement LOW in an alternate riser; ECN and work package being prepared. Due to the vapor issues in the tank farms, the installation is scheduled for June 7, 2004 – June 11, 2004.

No significant regulatory issues/concerns resulting in follow-on actions were identified.

M-048-00, DST Integrity Assessment Program

Start: 10:43 a.m.

End: 10:47 a.m.

Tri-Party Agreement Interim Milestone M-043-12, *Submit Results of Four DSTs not previously Examined*, due September 30, 2004, is on schedule. New respirator requirements in all of the tank farms have slowed the pace of the work and some will be deferred to FY 2005. A recovery plan is being implemented to bring on a second UT crew to complete the deferred work and complete the M-048-13 milestone.

No significant regulatory issues/concerns resulting in follow-on actions were identified.

In Tank Characterization and Summary

Start: 11:02 a.m.

End: 11:18 a.m.

There was a brief discussion on how waste codes are added or taken off. Institutional knowledge adds waste codes for the SST; characterization takes them off. Currently, there is not an ignitability code; the WIPP Part B Permit does not contain one and New Mexico may not want to cover potential explosives.

M-090-00, Complete Acquisition of Facilities for Interim Storage of IHLW and Storage/Disposal of ILAW and M-20 Part B Permits

Start: 10:15 a.m.

End: 10:39 a.m.

The delay in the ROD for the SW-EIS has impacted the start of the IDF site preparation and utility installation scheduled for 2004. The SW-EIS doesn't give Ecology the coverage needed for SEPA so Ecology questions the adoptability of such an approach; this needs to be resolved soon.

**Action:** Schedule meetings to discuss:

- Discuss Hanford Shipping Facility Level 1 Specifications and regulatory status of it - with and without storage.
- Ecology/RL will meet to lay out a path forward for preparation of a RCRA Part B Permitting Plan for the Canister Storage Building
- NEPA/SEPA/PA issues and whether Ecology will be able to accept the Tank Farm-EIS under SEPA provisions.

**Actionee:** Phil LaMont

LDR Assessment Status

Start: 11:19 a.m.

End: 11:22 a.m.

The CY 2003 LDR Report was submitted to Ecology on April 28, 2004 (Tri-Party Agreement Interim Milestone M-026-01N on April 28, 2004. An assessment is scheduled for 4<sup>th</sup> quarter.

Office of River Protection

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Tri-Party Agreement  
Quarterly Milestone Review Meeting  
May 25, 2004

The logo for the Office of River Protection features the text "Office of River Protection" in a bold, sans-serif font. The text is set against a background that resembles a piece of torn paper or a brushstroke, with a wavy, irregular edge. The overall appearance is textured and somewhat distressed.

**Office of River Protection**

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

2<sup>nd</sup> Quarter of FY 2004

## Agenda

Office of River Protection  
 Tri-Party Agreement Quarterly Milestone Review Meeting  
 May 25, 2004  
 712 Swift Blvd, Suite 5, EPA Conference Room  
 9:00 a.m. – 12:00 p.m.

Page	Topic	Leads	Time
3 8	• TPA Milestone Statistics • FY 2003 ORP TPA Cost & Schedule Performance (CHG)	Diane Clark / Suzanne Dahl / Jeff Lyon	9:00
22	• BNI Cost & Schedule Performance and • M-62-00, Complete Pretreatment Processing and Vitrification of Tank Wastes/Supplemental Technologies	John Eschenberg / Billie Mauss / Suzanne Dahl	9:10
24	M-43-00, Tank Farm Upgrades	Cathy Louie / Steve Lijek	9:25
25	M-46-00, Double-Shell Tank Space Evaluation	Cathy Louie / Jeff Lyon	9:35
29	M-47-00, Tank Waste Treatment, Storage and Disposal Facilities	Cathy Louie / Jim Navarro / Steve Lijek	9:45
31	M-45, -50, -60 Single-Shell Tank Corrective Action	Rob Yasek / Joe Caggiano	9:55
33	M-90-00, Complete Acquisition of Facilities for Interim Storage of IHLW and Storage/ Disposal of ILAW and M-20, Part B Permits	Phil LaMont / Bud Derrick	10:05
35	M-23-00, Tank Integrity and Monitoring	John Long / Jeff Lyon	10:15
37	Interim Stabilization Consent Decree	John Long / Nancy Uziemblo	10:25
39	M-48-00, DST Integrity Assessment Program	Andy Stevens / Vic Callahan / Brenda Jentzen	10:35
41	M-45-00, Single-Shell Tank Closure	Roger Quintero / Dick Heggen	10:40
	<b>BREAK</b>		
57	In Tank Characterization and Summary	Wen-Shou Liou / Debra Singleton	11:00
	LDR Assessment Status	Woody Russell / Jeff Lyon	11:05
	Review of new commitments and actions	Diane Clark / Jeff Lyon / Suzanne Dahl	11:15

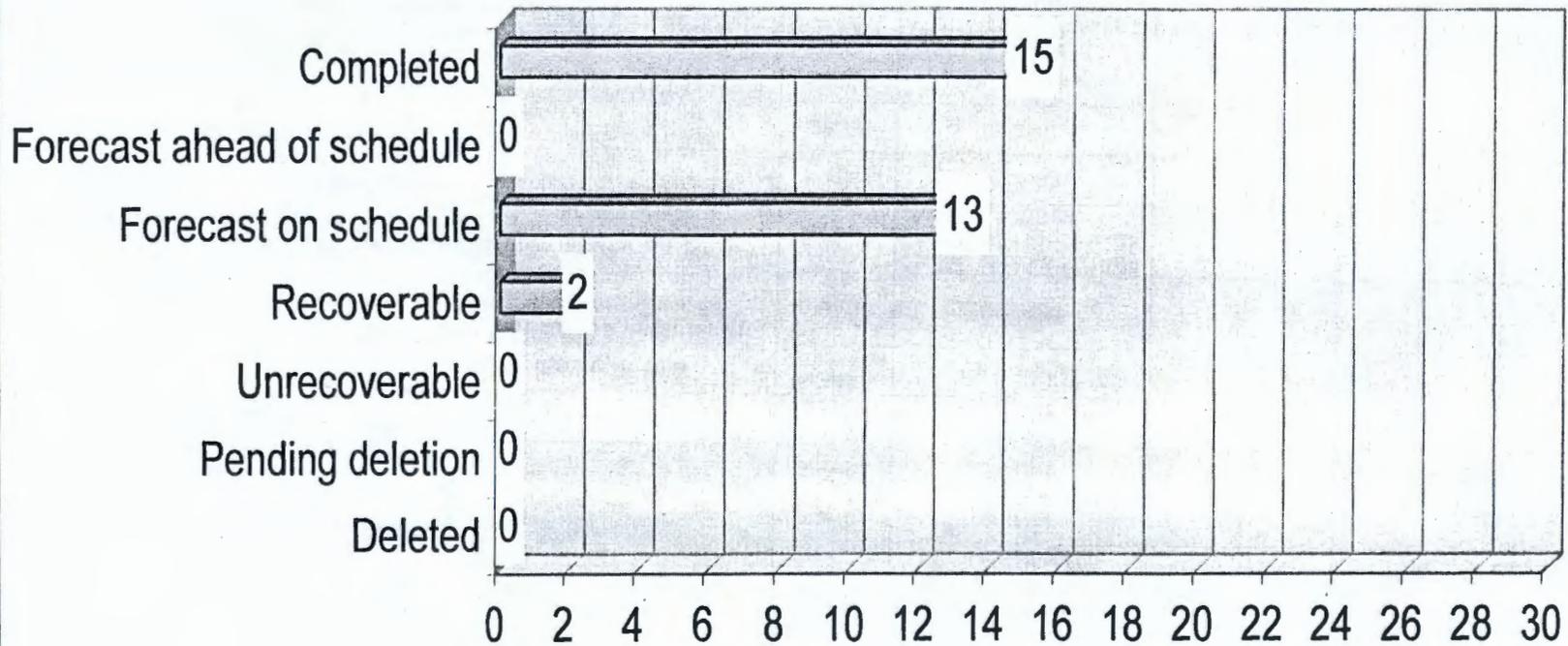
### TPA Milestone Statistics

(Including target milestones)

Milestone	Due Date	Total Active as of 05/25/04	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	02/28/04 (M-20-00)	0				
M-23-25, Tank Integrity and Monitoring	09/30/04 (M-23-25)	4	M-23-25F M-23-25	03/31/04 09/30/04	M-23-25G M-23-27	03/31/05 12/30/04
M-42-00, Provide Additional DST Capacity	TBD	1	M-42-00	TBD		
M-43-00, Complete Tank Farm Upgrades	06/30/05 (M-43-00)	1	M-43-00	06/30/05		
M-45-00, Complete Closure of all SST Farms	9/30/2024 (M-45-00)	73	M-45-05L-T01 M-45-05M-T01 M-45-00C M-45-05H M-45-06-T20A M-45-02M M-45-03H M-45-06B M-45-06C M-45-05N-T01 M-45-55-T03 M-45-05-T17 M-45-05A M-45-03C M-45-02N M-45-13 M-45-02O M-45-03I M-45-00B M-45-05E M-45-06D M-45-55 M-45-13-T01 M-45-15 M-45-02P M-45-03F M-45-05-T05 M-45-06-T20B M-45-14 M-45-15-T01 M-45-02Q M-45-05F M-45-60 M-45-56	11/01/03 02/27/04 02/28/04 06/30/04 06/30/04 09/30/04 9/30/04 9/30/04 9/30/04 12/31/04 1/31/05 4/30/05 3/31/05 3/31/05 9/30/05 12/31/05 9/30/06 9/30/06 9/30/06 6/30/07 6/30/07 1/31/07 12/30/06 12/31/05 9/30/07 9/30/07 9/30/07 9/30/07 6/30/06 6/30/08 12/31/06 9/30/08 9/30/08 9/30/07 TBD	M-45-05-T06 M-45-06E M-45-14-T01 M-45-02R M-45-05-T07 M-45-05G-T01 M-45-06-T20C M-45-16 M-45-02S M-45-05-T08 M-45-00D M-45-16-T01 M-45-02T M-45-05-T09 M-45-06-T03 M-45-06-T20D M-45-02U M-45-05-T10 M-45-02V M-45-05-T11 M-45-06-T04 M-45-06-T20E M-45-02W M-45-05-T12 M-45-02X M-45-05-T13 M-45-06-T20F M-45-02Y M-45-05-T14 M-45-02Z M-45-05-T15 M-45-06-T20G M-45-05 M-45-06-T20J M-45-06-T20K M-45-06 M-45-00 M-45-58 M45-59	9/30/08 12/31/08 6/30/09 9/30/09 9/30/09 10/31/09 6/30/08 7/31/10 9/30/10 9/30/10 6/30/11 7/31/11 9/30/11 9/30/11 3/31/12 6/30/12 9/30/12 9/30/12 9/30/13 9/30/13 3/31/14 6/30/14 9/30/14 9/30/14 9/30/15 9/30/15 6/30/16 9/30/16 9/30/16 9/30/17 9/30/17 6/30/18 9/30/18 6/30/20 6/30/22 9/30/24 9/30/24 6/30/07 TBD

Milestone	Due Date	Total Active as of 05/25/04	Milestone Number	Due Date	Milestone Number	Due Date
M-46-00, Double Shell Tank Space Evaluation	11/30/06 (M-46-01)	8	M-46-01J M-46-00K	8/12/04 9/30/04	M-46-01K M-46-00L M-46-01L M-46-21 M-46-00M M-46-01M	11/30/04 9/30/05 11/30/05 12/31/05 9/30/06 11/30/06
M-47-00, Complete All Work for Phase 1 Operations	02/28/2018 (M-47-00)	7	M-47-01 M-47-05A M-47-02	3/31/06 4/30/06 3/31/09	M-47-04 M-47-03A M-47-06 M-47-00	3/31/09 3/31/09 6/30/10 02/28/18
M-50-00, Complete Pretreatment Processing of Hanford Tank Waste	12/31/2028 (M-50-00)	1	M-50-00	12/31/28		
M-51-00, Complete Vitrification of Hanford High Level Tank Waste	12/31/2028 (M-51-00)	1	M-51-00	12/31/28		
M-61-00* (alternate path), Complete Pretreatment & Immobilization of Hanford Low Activity Tank Waste	12/31/2028 (M-61-00)	1	M-61-00	12/31/28		
M-62-00, Complete Pretreatment Processing and Vitrification of Tank Wastes	12/31/2028 (M-62-00)	14	M-62-01I M-62-01J M-62-01K M-62-08 M-62-07B M-62-01L	7/31/04 1/31/05 7/31/05 1/30/05 12/31/07 1/31/06	M-62-01M M-62-03 M-62-09 M-62-10 M-62-11 M-62-00A M-62-00 M-62-12	7/31/06 12/31/06 2/28/09 1/31/11 1/30/06 2/28/18 12/31/28 TBD
M-90-00, Interim Storage and Disposal of LAW and Interim Storage of HLW	TBD (M-90-00)	4	M-90-08 M-90-10	2/28/05 8/31/08	M-90-11 M-90-00	8/31/10 TBD
M-48-00, DST Integrity Program, Submit Results of 4 DSTs not Previously Examined	9/30/07	5	M-48-12 M-48-13	9/30/04 9/30/05	M-48-14 M-48-15 M-48-00	3/31/06 9/30/07 9/30/07
Interim Stabilization Consent Decree	9/30/04 (D-001-00)	3	D-001-00-R21 D-001-00 D-001-00-R22	7/31/04 9/30/04 10/31/04		
<b>Total Active Milestones:</b>		<b>123</b>				

### FY 2004 MILESTONE PERFORMANCE

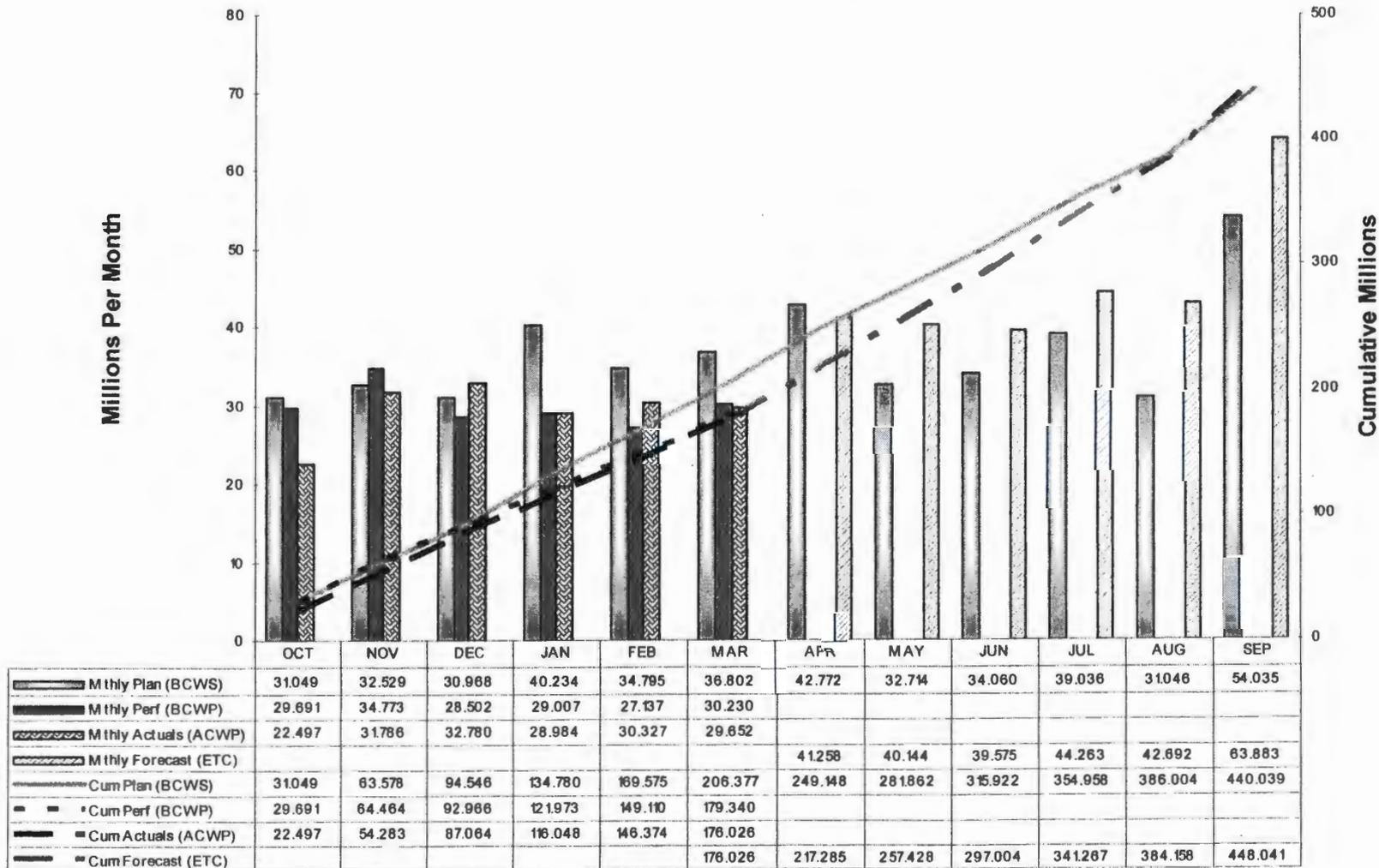


**Fiscal Year 2004 Tri-Party Agreement Milestone Status**

Milestone	Description	Due Date	Completed	Forecast		Recoverable	Unrecoverable	Pending Deletion	Deleted
				Ahead of Schedule	On Schedule				
D-001-00-R18	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.	10/31/03	10/29/03						
M-062-07A	Initial erection of LAW Vitrification Facility elevation - 21' structural steel columns, beams, and Q-Deck at elevation +3.	10/31/03	7/24/03						
M-045-05L-T01	Complete full-scale C-106 waste retrieval.	11/1/03	See M-45-05M-T01			X			
D-001-14-T01	Complete pumping of C-103.	12/30/03	8/21/03						
D-001-00-R19	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.	1/31/04	1/31/04						
M-062-01H	Submit semi-annual Project Compliance Report.	1/31/04	1/31/04						
M-045-05M-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.	2/27/04	Partially complete (04-TPD-025, 04-TPD-030) Appendix H and completion info to be submitted late May			X			
M-045-00C	Complete Renegotiation of Second Phase (i.e., 09/30/06 through 09/30/2015) SST waste retrieval activities.	2/28/04	2/27/04						
M-023-25F	Complete installation of LOWs and begin weekly Liquid Observation Monitoring for 4 additional SSTs.	3/31/04	3/17/04						
M-045-05B	Complete S-102 Initial Retrieval Project Design.	3/31/04	5/30/03						
M-045-05C	Complete S-102 Retrieval Construction.	3/31/04	2/27/04						
M-046-01J	Concurrence of additional tank acquisition. (Ecology Action)	Extended to 08/12/04	On Schedule		X				
D-001-00-R20	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.	4/30/04	04/29/04						
M-045-05H	Interim completion of Tank C-106 SST waste retrieval and closure demonstration project.	6/30/04	Change package M-45-04-02 submitted to move date to 06/30/04		X				
M-047-05	Start construction of waste retrieval and mobilization systems for selected initial LAW feed tank.	5/31/04	10/7/03						
M-045-03G	Complete C-104 sludge/hard heel, confined sluicing and robotic technologies, waste retrieval cold demonstration.	6/30/04	8/13/03						
M-045-06-T20A	Submit SST System Implementation Plan in support of retrieval and closure activities.	6/30/04	On Schedule		X				
M-047-03	Start construction of waste retrieval and mobilization.	7/30/04	12/16/02						
D-001-00-R21	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.	7/31/04	On Schedule		X				
M-062-01I	Submit semi-annual Project Compliance Report.	7/31/04	On Schedule		X				
D-001-00	DOE shall complete interim stabilization of all 29 SSTs.	9/30/04	3/18/04						
M-023-25	Complete installation of LOWs for SSTs: AX-103, B-101, T-109, TX-103, TX-104, B-107, B-108, B-109, BY-108, BX-110, TX-116, C-102, C-105, BX-109, TY-105, U-110, A-106, C-112, SX-111, SX-112, S-107, C-103, and TX-105.	3/31/05	Due date changed to 03/31/05 per TPA change request M-23-04-01		X				

Milestone	Description	Due Date	Completed	Forecast		Recoverable	Unrecoverable	Pending Deletion	Deleted
				Ahead of Schedule	On Schedule				
M-023-25G	Complete installation of LOWs and begin weekly Liquid Observation Monitoring for 4 additional SSTs.	3/31/05	Due date changed to 03/31/05 per TPA change request M-23-04-01		X				
M-045-02M	Submit annual update of SST Retrieval Sequence Document.	9/30/04	On hold in anticipation of M-45 TPA Change Request		X				
M-045-03E	Complete S-112 Saltcake Waste Retrieval Technology Demonstration Construction.	3/31/04	6/30/03						
M-045-03H	Complete C-104 Sludge/Hard Heel, Confined Sluicing and Robotic Technologies, Waste Retrieval Demonstration Design.	9/30/04	On hold in anticipation of M-45 TPA Change Request		X				
M-045-06B	Submit certified SST System Closure Plan Modification and S-112 Waste Retrieval and Closure Demonstration Plan.	9/30/04	On Schedule		X				
M-045-06C	Submit certified SST System Closure Plan Modification and S-102 Waste Retrieval and Closure Demonstration Plan.	9/30/04	On Schedule		X				
M-046-00K	Double-Shell Tank Space Evaluation.	9/30/04	On hold in anticipation of M-45 TPA Change Request		X				
M-048-12	Submit results of 4 DSTs not previously examined.	9/30/04	On Schedule		X				
M-045-03C	Complete Saltcake Dissolution Retrieval Demonstration.	3/31/05	Forecast for completion 07/11/04						
M-045-05A	Complete initial waste retrieval S-102.	3/31/05	Forecast for completion 03/6/05						
M-045-05C	Complete S-102 retrieval construction.	3/31/05	3/1/04						
M-045-05-T17	Submit SSTs S-105, S-106, & S-103 Waste Retrieval and Closure Demonstrations Functions & Requirements document.	4/30/05	On Schedule						
M-045-55	Submit to Ecology for review and approval as an Agreement Primary Document a Phase 1 RFI Report integrating results of data gathering activities and evaluations for WMAS S-SX, T, TX-TY, and B-BX-BY and related activities, including groundwater monitoring and impacts assessment using Hanford Site groundwater models, with conclusions and recommendations.	1/31/07	On Schedule						
M-045-13	Interim completion of Tank S-112 SST waste retrieval and closure.	12/31/05	On Accelerated Schedule						
M-045-15	Interim completion of Tank S-102 SST waste retrieval and closure demonstration.	12/31/05	On Accelerated Schedule						
M-045-05-T05	Initiate waste retrieval from 5 SSTs.	9/30/07	On Schedule						
M-045-05-T06	Initiate waste retrieval from 5 SSTs.	9/30/08	On Schedule						
M-045-05-T07	Initiate waste retrieval from 7 SSTs.	9/30/09	On Schedule						
M-047-01	Complete construction transfer systems - AP Farm to WTP.	3/31/06	12/10/03						
<b>TOTAL</b>		<b>30 (41)</b>	<b>15</b>	<b>0</b>	<b>13</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>

### CH2M HILL Performance Cost/Schedule



## Executive Summary March 2004

The Tank Farm Contractor accomplishments for the month included completing interim stabilization pumping on the last Consent Decree tank, on March 18, 2004. This meets the non-enforceable Consent Decree Milestone D-001-11-T01, "Complete Pumping of U-108, U-107, S-111, and SX-102." Consent Decree Milestone D-001-00, "DOE Shall Complete Interim Stabilization of All 29 Single-Shell Tanks," has also been completed approximately six months ahead of schedule, subject to the completion of retrieval of tanks S-102 and S-112 which are held in abeyance under the provisions of amendment 3 of the Consent Decree. Completion of the interim stabilization pumping of single-shell tanks (SST) represents a significant accomplishment and demonstrates CH2M HILL's commitment to reducing risk to the environment. In addition, installation of the first four (of 8) Liquid Observation Wells (LOWs) was completed on March 16, 2004, meeting Tri-Party Agreement milestone M-23-25F.

As part of the response to vapor issues in the tank farms, CH2M HILL's management announced that, effective March 25, 2004 and until further notice, tank farm work would be performed with respirators. There were no lost workday cases during the month, and three recordable injuries were reported. The Lost Workday 12-Month Rolling Average Case Rate decreased slightly from an adjusted rate of 1.0 cases per 200,000 hours in February to 0.96 in March, and the recordable case rate increased from 3.81 in February to 4.17 in March. Initiatives are ongoing to address ergonomic issues and to continue employee participation in safety behavior observation programs.

As of March month end, the earned value management system data indicates that overall CH2M HILL activities are behind schedule, but under budget. The fiscal year-to-date cost variance changed from a favorable \$2.4M in February to a favorable \$3.3M in March. The fiscal year-to-date schedule variance changed from an unfavorable \$20.8M in February to an unfavorable \$27.0M in March. The primary reasons for the change from last month include continued permitting and procurement delays with supplemental treatment and contact-handled transuranic (CH-TRU) Packaging; and misalignment between planning and activity execution for SST retrievals. More detailed explanations of variances are contained below and beginning on page 18 of this report.

### Schedule

The fiscal year-to-date unfavorable schedule variance is -\$27.0M; or -13.1% as of the end of March. The variance is primarily attributable to delay in the CH-TRU Packaging, which was driven by changing to a more extensive Resource Conservation and Recovery Act of 1976 (RCRA) Part B permit; delay in placement of the supplemental treatment procurements, which is caused by delays in the bid acceptance process; Contract fee associated with 17 Performance Based Incentive (PBI) milestones not being earned as planned; C and S-Farm Closure activities which are impacted by the delay in the SST retrieval schedule; and B-200, T-200, and U-200 series SST retrievals where the work for design, procurement, and installation were planned in parallel and is being performed in sequence.

**Executive Summary**  
**March 2004**  
**(Cont'd)**

Tri-Party Agreement milestone (M-45-05H), "Interim Completion of C-106", will not be achieved by April 30, 2004. This milestone states that "full scale retrieval has been completed in accordance with applicable regulatory requirements." The Washington State Department of Ecology (Ecology) sent a letter to the Office of River Protection (ORP) dated April 5, 2004 that indicated they will consider a change to the M-45-05H milestone due date. Ecology agrees to work toward completion of the notice of deficiency process on the C-106 closure plan, and CH2M HILL/ORP will provide an Appendix H application and a Risk Assessment by June 30, 2004. CH2M Hill will deliver the Risk Assessment and Appendix H application to ORP, ahead of schedule, on May 26, 2004. ORP will transmit them to Ecology on May 28, 2004.

**Cost**

The fiscal year-to-date favorable cost variance is \$3.3M or 1.9%. The variance is primarily attributable to: earning performance on a level-of-effort activity for waste packaging that is not incurring actual cost because of the contractual requirement with our subcontractor; reduction in the planned level-of-effort 242-A Evaporator campaigns from eight to one; C-200 series Interim Closure, which is experiencing under runs in sampling and analysis; and Contract Fee payments for work completed in March which was not recorded until April. These favorable variances were partially offset by: SST Retrieval efforts, which experienced higher costs than planned for engineering design and fabrication; costs for additional requirements related to supplemental treatment permitting; and higher CH-TRU Packaging costs to mitigate permitting delays and for additional rework associated with the NEPA document revision.

The detailed estimate at completion (EAC) decreased from \$456M in February to \$448M in March. However, based on a preliminary management assessment, the detailed EAC is overstated by approximately \$20M. The detailed EAC is driven by an overstatement of labor based on available staffing and overly optimistic planning for procurements in the Closure Project area. Without this overstatement, the EAC would be approximately \$428M, which is within the revised available contract funding of \$430M. The revised funding reflects an \$11M reduction initiated by ORP to support the Waste Treatment and Immobilization Plant (WTP) needs.

**CH2M HILL Hanford Group, Inc.**  
**FISCAL YEAR 2004 PERFORMANCE MEASUREMENT - MARCH**  
**BY WORK BREAKDOWN STRUCTURE / PBS**  
 Dollars in Thousands

WBS / PBS	TITLE	Budgeted Cost			Cumulative Fiscal Year To Date			Variance		
		Work Scheduled	Work Performed	Actual Cost Work Performed	Schedule	SV %	SPI	Cost	CV %	CPI
5.07	BASE OPERATIONS	<u>77,287.2</u>	<u>73,313.1</u>	<u>67,386.8</u>	<u>(3,974.1)</u>	-5.1%	0.95	<u>5,926.3</u>	8.1%	1.09
5.08	RETRIEVE AND CLOSE - Excluding Projects	41,364.8	38,040.9	30,743.7	(3,323.9)	-8.0%	0.92	7,297.2	19.2%	1.24
5.08.03.02	10 DST Retrieval Systems (W-211)	6,125.8	5,579.0	5,669.1	(546.8)	-8.9%	0.91	(90.1)	-1.6%	0.98
5.08.04.01	Tank Farm Restoration and Safe Ops (W-314)	17,537.9	17,043.0	16,290.4	(494.9)	-2.8%	0.97	752.6	4.4%	1.05
5.08.04.02	Upgrade Transfer System (E-525)	5,420.2	3,638.2	3,516.5	(1,782.0)	-32.9%	0.67	121.7	3.3%	1.03
5.08.06	SST Retrieval East Area	16,185.8	11,113.9	14,140.2	(5,071.9)	-31.3%	0.69	(3,026.3)	-27.2%	0.79
5.08.07	SST Retrieval West Area	<u>8,730.2</u>	<u>5,314.8</u>	<u>9,698.5</u>	<u>(3,415.4)</u>	-39.1%	0.61	<u>(4,383.7)</u>	-82.5%	0.55
	<b>TOTAL RETRIEVE AND CLOSE</b>	<u>95,364.7</u>	<u>80,729.8</u>	<u>80,058.4</u>	<u>(14,634.9)</u>	-15.3%	0.85	<u>671.4</u>	0.8%	1.01
5.09	TREAT AND DISPOSE WASTE - Excluding Projects	21,768.8	13,500.5	16,706.3	(8,268.3)	-38.0%	0.62	(3,205.8)	-23.7%	0.81
5.09.04.01	Failed Melter Disposal System	0.0	0.0	0.0	0.0	0.0%	0.00	0.0	0.0%	0.00
	<b>TOTAL TREAT AND DISPOSE WASTE</b>	<u>21,768.8</u>	<u>13,500.5</u>	<u>16,706.3</u>	<u>(8,268.3)</u>	-38.0%	0.62	<u>(3,205.8)</u>	-23.7%	0.81
5.10	ANALYTICAL/TECHNICAL SERVICES	<u>10,436.3</u>	<u>10,226.6</u>	<u>10,462.1</u>	<u>(209.7)</u>	-2.0%	0.98	<u>(235.5)</u>	-2.3%	0.98
<b>SUB-TOTAL - ORP0014 - EXCLUDING W-464</b>		<u>204,857.0</u>	<u>177,770.0</u>	<u>174,613.6</u>	<u>(27,087.0)</u>	-13.2%	0.87	<u>3,156.4</u>	1.8%	1.02
5.09.03.04.02	W-464 Air Permitting - Expense	26.2	26.2	0.0	0.0	0.0%	1.00	26.2	100.0%	0.00
5.09.03.04.03	W-464 Project Support - Expense	157.5	157.5	119.7	0.0	0.0%	1.00	37.8	24.0%	1.32
5.09.03.04.08	W-464 Contingency - Line Item	<u>0.0</u>	<u>0.0</u>	<u>0.3</u>	<u>0.0</u>	0.0%	0.00	<u>(0.3)</u>	0.0%	0.00
PBS ORP0014	<b>PROJECT W-464</b>	<u>183.7</u>	<u>183.7</u>	<u>120.0</u>	<u>0.0</u>	0.0%	1.00	<u>63.7</u>	34.7%	1.53
<b>TOTAL - ORP0014</b>		<u>205,040.7</u>	<u>177,953.7</u>	<u>174,733.6</u>	<u>(27,087.0)</u>	-13.2%	0.87	<u>3,220.1</u>	1.8%	1.02
5.09.03.04.01	W-464 Project Management - Line Item	219.2	219.2	83.1	0.0	0.0%	1.00	136.1	62.1%	2.64
5.09.03.04.04	W-464 Preliminary Design - Line Item	<u>1,117.0</u>	<u>1,167.1</u>	<u>1,209.8</u>	<u>50.1</u>	4.5%	1.04	<u>(42.7)</u>	-3.7%	0.96
PBS ORP0014X	<b>PROJECT W-464</b>	<u>1,336.2</u>	<u>1,386.3</u>	<u>1,292.9</u>	<u>50.1</u>	3.7%	1.04	<u>93.4</u>	6.7%	1.07
<b>RPP TOTAL</b>		<u>206,376.9</u>	<u>179,340.0</u>	<u>176,026.5</u>	<u>(27,036.9)</u>	-13.1%	0.87	<u>3,313.5</u>	1.8%	1.02
Memo:	Total Project W-464	1,519.9	1,570.0	1,412.9	50.1	3.3%	1.03	157.1	10.0%	1.11

FY 2004 Cumulative Performance – Base Operations						
	<u>BCWS</u>	<u>BCWP</u>	<u>ACWP</u>	<u>SV</u>	<u>CV</u>	<u>BAC</u>
5.07	77,287.2	73,313.1	67,386.8	(3,974.1) -5.1%	5,926.3 8.1%	167,966.5

**SCHEDULE VARIANCE**

**Description and Cause:** The fiscal year-to-date unfavorable schedule variance (-\$4.0M; -5.1%) is primarily due to the Contract fee associated with 17 Performance Based Incentive (PBI) milestones not being earned as planned due to resource allocation issues, a partially plugged transfer line, and adverse weather impacts.

**Impact:** None.

**Corrective Action:** The fiscal year-to-date unfavorable schedule variance will improve as PBIs are completed.

**COST VARIANCE**

**Description and Cause:** The fiscal year-to-date favorable cost variance (\$5.9M; 8.1%) is primarily because of: delays in starting level-of-effort activities related to the 242-A Evaporator, Tank Waste Characterization grab sampling, and DST TSR/Basic Maintenance. The 242-A Evaporator variance is due to the reduction in number of scheduled FY 2004 campaigns from eight to one. The Tank Waste Characterization under run is the result of not performing planned DST grab sampling/analysis activities in the first quarter of FY 2004 in favor of supporting SST Retrieval Program sampling needs. The DST TSR/Basic Maintenance under run is due to efficiencies realized in the performance of the work. Also, a positive cost variance was incurred related to Contract Fee work completed in March that will not be recorded until April.

**Impact:** The 242-A Evaporator, Tank Waste Characterization, DST TSR/Basic Maintenance activities will continue to reflect a favorable cost variance.

**Corrective Action:** A BCR is in process to use budget from these activities for installation of a decant pump in AN-101 and a transfer pump in AZ-102 in support of the proposed DST Space Management Program. The Contract Fee payments will be recorded in April.

FY 2004 Cumulative Performance – Retrieve and Close (Excluding Projects)						
	(\$000)					
	<u>BCWS</u>	<u>BCWP</u>	<u>ACWP</u>	<u>SV</u>	<u>CV</u>	<u>BAC</u>
5.08	41,364.8	38,040.9	30,743.7	(3,323.9) -8.0%	7,297.2 19.2%	89,938.7

**SCHEDULE VARIANCE**

**Description and Cause:** The fiscal year-to-date unfavorable schedule variance (-\$3.3M; -8.0%) is primarily because of C and S-Farm Closure activities, which are impacted by the delay in the single-shell tank (SST) retrieval schedule and the Closure Environmental Impact Statement (EIS) Record of Decision.

**Impact:** Tank closure activities will be further delayed as a result of the Closure EIS Record of Decision's delay to April 2005.

**Corrective Action:** Replanning of the work has been initiated and other options are being assessed.

**COST VARIANCE**

**Description and Cause:** The fiscal year-to-date favorable cost variance (\$7.3M; 19.2%) is primarily because of: the Waste Management Program receiving partial billing of subcontractor waste packaging support for in-process waste, while recognizing full performance; efficiencies that have been realized in Tank Farm Risk Assessments by performing data assessments and modeling by waste management area rather than by tank; costs for C-200 Series Interim Closure being lower than planned, but which are expected to increase later in this fiscal year as the work complexity increases; and early completion of stabilization pumping which has resulted in reduced need for Shift Operations resources.

**Impact:** There is no forecasted impact.

**Corrective Action:** Final billing for waste packaging support will occur as packaging of in-process waste is completed and shipped for disposal to FH/DOE-RL. Shift Operations resources are being utilized in other program areas. The C-200 Series interim closure variance will diminish prior to fiscal year-end as work is performed.

<b>FY 2004 Cumulative Performance – 10 DST Retrieval Systems (W-211)</b>						
	(\$000)					
	<u>BCWS</u>	<u>BCWP</u>	<u>ACWP</u>	<u>SV</u>	<u>CV</u>	<u>BAC</u>
5.08.03.02	6,125.8	5,579.0	5,669.1	(546.8) -8.9%	(90.1) -1.6%	12,578.6

**SCHEDULE VARIANCE**

**Description and Cause:** The fiscal year-to-date unfavorable schedule variance (-\$0.5M; -8.9%) is within threshold.

**Impact:** No impact.

**Corrective Action:** None required.

**COST VARIANCE**

**Description and Cause:** The fiscal year-to-date unfavorable cost variance (-\$0.1M; -1.6%) is within threshold.

**Impact:** No impact.

**Corrective Action:** None required.

**FY 2004 Cumulative Performance – Project W-314 (Tank Farm Restoration and Safe Operations)**

	<u>BCWS</u>	<u>BCWP</u>	<u>ACWP</u> (\$000)	<u>SV</u>	<u>CV</u>	<u>BAC</u>
5.08.04.01	14,537.9	17,043.0	16,290.4	(494.9) -2.8%	752.6 4.4%	28,257.0

**SCHEDULE VARIANCE**

**Description and Cause:** The fiscal year-to-date unfavorable schedule variance (-\$0.5M; -2.8%) is within threshold.

**Impact:** No impact.

**Corrective Action:** None required.

**COST VARIANCE**

**Description and Cause:** The fiscal year-to-date favorable cost variance (\$0.8M; 4.4%) is within threshold.

**Impact:** No impact.

**Corrective Action:** None required.

<b>FY 2004 Cumulative Performance – Project E-525 (Upgrade Transfer Systems)</b>						
	<u>BCWS</u>	<u>BCWP</u>	<u>ACWP</u>	<u>SV</u>	<u>CV</u>	<u>BAC</u>
5.08.04.02	5,420.2	3,638.2	3,516.5	(1,782.0) -32.9%	121.7 3.3%	11,720.6

**SCHEDULE VARIANCE**

**Description and Cause:** The fiscal year-to-date unfavorable schedule variance (-\$1.8M; -32.9%) is because of delays in starting construction field activities due to inclement weather and resource allocation issues.

**Impact:** There is no forecasted impact.

**Corrective Action:** The schedule is expected to be recovered by fiscal year-end by using scheduled windows of opportunity to perform field work activities.

**COST VARIANCE**

**Description and Cause:** The fiscal year-to-date favorable cost variance (\$0.1M; 3.3%) is within threshold.

**Impact:** No impact.

**Corrective Action:** None required.

FY 2004 Cumulative Performance – SST Retrieval East Area						
	(\$000)					
	<u>BCWS</u>	<u>BCWP</u>	<u>ACWP</u>	<u>SV</u>	<u>CV</u>	<u>BAC</u>
5.08.06	16,185.8	11,113.9	14,140.2	(5,071.9) -31.3%	(3,026.3) -27.2%	25,102.4

**SCHEDULE VARIANCE**

**Description and Cause:** The fiscal year-to-date unfavorable schedule variance (-\$5.1M; -31.3%) is primarily driven by the procurement and installation activity for B-200 series retrievals. Normally the design, procurement, and installation phases of this activity would have staggered starts, but the baseline schedule was established with these activities starting at the same time as the project kickoff. The design and procurement started on schedule, and installation has not started. In addition, the bulk of the procurement activity will happen late in the fiscal year, against the planned level loading of the effort. Procurement started in October along with work on the vacuum retrieval system, which is not expected to be received until later this year. In addition, engineering efforts to award two blanket master agreements for engineering services and the associated rate negotiations delayed the initiation of C-103 and C-105 designs. Also, C-200 retrievals were delayed due to inclement weather and resource availability issues.

**Impact:** The C-200 series retrieval schedules will be recovered by fiscal year end. There is no impact to the B-200 series retrieval planned FY 2005 project end date.

**Corrective Action:** A portion of the B-200 earned value will be recovered when the vacuum retrieval system is received in the August to September 2004 timeframe. Supporting procurements will commence upon completion of the final design in June 2004. Other options are currently being assessed to develop appropriate corrective actions.

**COST VARIANCE**

**Description and Cause:** The fiscal year-to-date unfavorable cost variance (-\$3.0M; -27.2%) is primarily due to C-200 series retrievals experiencing higher than planned equipment and pump disposal costs, increased engineering costs for unforeseen items, weather delays resulting in work stoppages and demurrage charges, and costs related to vapor issues. In addition, the engineering activity for B-201 Retrieval is costing more than the planned estimates.

**Impact:** The negative cost variance will continue and is included in the EAC.

**Corrective Action:** Subsequent retrievals should experience lower costs due to lessons learned on first of a kind retrievals.

**FY 2004 Cumulative Performance – SST Retrieval West Area**

	<u>BCWS</u>	<u>BCWP</u>	<u>ACWP</u>	<u>SV</u>	<u>CV</u>	<u>BAC</u>
5.08.07	8,730.2	5,314.8	9,698.5	(3,415.4) -39.1%	(4,383.7) -82.5%	26,353.8

**SCHEDULE VARIANCE**

**Description and Cause:** The fiscal year-to-date unfavorable schedule variance (-\$3.4M; -39.1%) is primarily driven by the procurement and installation activity for U-200 and T-200 series retrievals. Normally the design, procurement, and installation phases of this activity would have staggered starts, but the baseline schedule was established with these activities starting at the same time as the project kickoff. The design and procurement started on schedule, and installation has not started. In addition, the bulk of the procurement activity will happen late in the fiscal year, against the planned level loading of the effort. Procurement for the U-200 series tanks started in October 2003.

**Impact:** There is no impact to the start of waste processing.

**Corrective Action:** Supporting procurements commenced upon completion of the final design in March 2004. Other options are currently being assessed to develop appropriate corrective actions. The T-200 series retrievals are expected to benefit from the design established for the B-200 series tanks.

**COST VARIANCE**

**Description and Cause:** The fiscal year-to-date unfavorable cost variance (-\$4.4M; -82.5%) is primarily due to S-Farm Retrieval experiencing higher than planned costs for engineering design and fabrication services.

**Impact:** The negative cost variance will continue and is included in the EAC.

**Corrective Action:** Subsequent retrievals should experience lower costs due to lessons learned on first of a kind retrievals.

FY 2004 Cumulative Performance – Treat & Dispose Waste (Excluding Projects)						
(\$000)						
	<u>BCWS</u>	<u>BCWP</u>	<u>ACWP</u>	<u>SV</u>	<u>CV</u>	<u>BAC</u>
5.09	21,768.7	13,500.4	16,706.3	(8,268.3) -38.0%	(3,205.9) -23.7%	53,315.3

**SCHEDULE VARIANCE**

**Description and Cause:** The fiscal year-to-date unfavorable schedule variance (-\$8.3M; -38.0%) results from delays in contact-handled transuranic waste (CH-TRU) Packaging Part B permit. In addition, placement of the supplemental treatment procurements are being delayed to allow evaluations of bid estimates that exceed baseline values.

**Impact:** There is a current negative float in the CH-TRU Packaging schedule of approximately five months. Delays in supplemental treatment procurements may impact the startup of the Bulk Vitrification Test and Demonstration Facility and TPA milestone M-062-08.

**Corrective Action:** Recovery plans are in progress for CH-TRU Packaging to reduce the Part B permitting schedule, primarily by eliminating the Part B Revision 1 step. Readiness review acceleration is also being evaluated. Options are being assessed for recovery of the supplemental treatment schedule.

**COST VARIANCE**

**Description and Cause:** The fiscal year-to-date unfavorable cost variance (-\$3.2M; -23.7%) results from added costs to mitigate permitting delays, and additional rework associated with NEPA document revision. Also, the packaging vendor has accumulated additional design costs resulting from inadequate design estimation.

**Impact:** There is no forecasted impact.

**Corrective Action:** An action plan is being prepared by the packaging vendor to identify cost savings in the design, equipment fabrication, and equipment procurement work scopes.

FY 2004 Cumulative Performance – Initial IHLW Storage facility (W-464) (PED)						
	<u>BCWS</u>	<u>BCWP</u>	<u>ACWP</u>	<u>SV</u>	<u>CV</u>	<u>BAC</u>
5.09.03.04	1,520.0	1,570.1	1,412.9	50.1 3.3%	157.2 10.0%	3,163.3

**SCHEDULE VARIANCE**

**Description and Cause:** The fiscal year-to-date unfavorable schedule variance (\$0.1M; 3.3%) is within threshold.

**Impact:** No impact.

**Corrective Action:** None required.

**COST VARIANCE**

**Description and Cause:** The fiscal year-to-date unfavorable cost variance (\$0.2M; 10.0%) is within threshold.

**Impact:** No impact.

**Corrective Action:** None required.

<b>FY 2004 Cumulative Performance – Analytical/Technical Services</b>						
	(\$000)					
	<u>BCWS</u>	<u>BCWP</u>	<u>ACWP</u>	<u>SV</u>	<u>CV</u>	<u>BAC</u>
5.10	10,436.3	10,226.6	10,462.1	(209.7) -2.0%	(235.5) -2.3%	21,642.9

**SCHEDULE VARIANCE**

**Description and Cause:** The fiscal year-to-date unfavorable schedule variance (-\$0.2M; -2.0%) is within threshold.

**Impact:** No impact.

**Corrective Action:** None required.

**COST VARIANCE**

**Description and Cause:** The fiscal year-to-date favorable cost variance (-\$0.2M; -2.3%) is within threshold.

**Impact:** No impact.

**Corrective Action:** None required.

RPP  
WTP

Safety Statistics	
Total Recordable Injuries	47
Lost-Time Accidents	3
Recordable Rate	0.63
Lost-Time Injury Rate	0.042
Hours Worked Since LWC	1455,466
Const Hours Worked Since LWC	530,321
Days w/Zero OSHA Recordables	7
Total Near Misses	6

Contingency (\$ in Millions)	
Contingency Plan	550.00
Trends	27.75
Contingency Total	577.75

Percent Complete (Based on \$)		
	Plan	Actual
Engineering	64.8%	63.4%
Construction	24.5%	25.2%
Total Project	33.8%	33.4%

Self-Performed vs Outsourced		
	Self	Out
To Date	47.4	52.6

Performance Indexes (Based on \$)										
	BOF	HLW	LAB	LAW	PT	Share Serv	UBM	Eng	Cons	Total Project
CPI	1.11	1.09	1.11	1.05	1.00	0.99	0.90	0.96	1.01	1.01
SPI	1.04	0.97	0.97	1.00	1.00	0.98	1.24	0.98	1.03	0.99
CSPI	1.08	1.03	1.04	1.02	1.00	0.99	1.07	0.96	1.02	1.00

Project Cost to Date (\$ in Millions)																	
	BOF		HLW		LAB		LAW		PT		Shared		UBM		OBS Totals		
	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	
Acq Services	0.40	0.42	0.49	0.50	0.28	0.29	0.43	0.40	0.50	0.49	44.49	49.93	0.00	0.00	46.62	52.02	
Business Mgmt	0.77	0.78	0.74	0.77	0.46	0.54	0.68	0.76	0.87	0.82	22.94	24.32	0.00	0.00	26.89	27.88	
Commissioning	2.34	2.85	2.26	2.67	1.52	1.97	2.06	2.62	1.96	2.52	22.90	25.35	0.00	0.00	33.04	37.97	
Communications	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.27	2.59	0.00	0.00	2.27	2.59	
Construction	35.90	38.47	21.38	27.30	0.34	0.38	24.37	24.22	57.71	56.97	222.29	217.11	45.26	33.01	407.04	397.46	
Contracts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.24	4.55	0.00	0.00	4.24	4.55	
Controller	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.61	3.64	0.00	0.00	3.61	3.64	
E&NS	0.77	0.66	1.66	1.98	1.06	1.28	1.54	1.49	3.31	2.91	4.153	4.204	0.00	0.00	50.09	50.39	
Engineering	22.58	22.57	86.43	90.99	4.39	6.50	69.90	71.56	88.46	88.11	68.71	61.53	0.00	0.00	450.73	450.26	
Human Resources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	57.95	55.67	0.00	0.00	57.95	55.67	
IS&T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.193	4.583	0.00	0.00	4.193	4.583	
PADC	0.10	0.07	0.14	0.12	0.13	0.14	0.13	0.12	0.14	0.20	26.10	27.57	0.00	0.00	26.86	28.23	
Project Controls	0.90	0.97	1.47	1.10	0.59	0.72	1.11	1.15	1.06	1.07	29.70	28.65	0.00	0.00	34.96	33.68	
Plant Equipment	6.34	8.01	35.65	48.40	0.87	1.82	22.20	28.14	64.21	64.32	0.01	0.60	0.00	0.00	129.27	151.29	
Process Tech	4.15	4.27	1.39	1.44	0.34	0.38	1.48	1.45	3.14	3.29	4.89	4.95	0.00	0.00	25.39	25.77	
QA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.04	17.21	0.00	0.00	17.04	17.21	
R&T	0.00	0.00	33.28	33.77	0.00	0.00	43.01	43.97	51.93	51.05	55.74	56.52	0.00	0.00	103.49	105.31	
Support Services	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.77	50.47	0.00	0.00	45.78	50.47	
WBS Totals	74.25	79.09	150.9	209.03	20.07	23.03	166.91	175.87	272.74	271.75	822.11	828.55	45.28	33.01	1587.21	1620.32	

Project Hours to Date (in Thousands)																	
	BOF		HLW		LAB		LAW		PT		Shared		OBS Totals		O/T		
	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan			
Engineering	331.07	331.78	1,188.21	1,234.09	211.00	226.77	899.02	910.25	1,378.65	1,350.67	2,129.65	2,154.26	6,400.50	6,207.82	8.2%		
Const Manual	400.32	473.81	274.98	436.70	0.00	0.00	328.03	317.75	507.95	662.57	854.64	1,003.25	2,365.92	2,894.06	16%		
Const Non-Man	1,147.17	1,577.44	1,058.83	1,645.45	4.45	6.10	1,042.29	1,165.05	1,259.11	1,377.72	1,069.62	1,079.82	1,552.78	1,613.88			
Acq Services	4.76	4.83	5.03	4.97	3.57	3.56	4.93	5.00	4.97	4.88	552.82	599.33	576.33	582.97	15%		
E&NS	7.69	9.59	25.62	29.09	13.47	15.67	21.49	22.07	34.17	33.94	432.64	442.47	535.16	553.02	3.6%		
R&T	0.00	0.00	20.55	21.06	0.00	0.00	0.68	0.36	27.89	30.72	54.81	54.22	117.32	122.37	0.8%		
Process Tech	24.71	28.49	24.69	26.51	5.87	6.95	27.06	27.38	43.84	49.66	103.80	103.78	229.92	242.76	2.7%		
Commissioning	34.82	43.16	31.82	38.64	21.58	27.52	29.76	38.18	28.80	36.92	259.95	269.74	406.73	454.16	0.5%		
Bus Serv & LOE	24.12	24.80	30.29	29.72	18.99	20.72	25.56	28.90	27.66	30.75	2,490.57	2,521.29	2,618.44	2,647.17	4.2%		
WBS Totals	958.95	1,074.20	1,707.02	1,937.22	278.93	307.88	1,453.81	1,481.94	2,179.84	2,337.82	7,948.49	8,179.14	14,542.93	15,316.20	4.8%		

Project Cost Estimate at Completion (\$ in Millions)											
	BOF		HLW		LAB		LAW		PT		Mar 03
	PMB	PMB	PMB	PMB	PMB	PMB	PMB	PMB	PMB		
Acq Services	0.65	0.72	0.46	0.56	0.72	0.72	0.95	0.00	0.00	16.06	17.84
Bus Mgmt	0.84	2.88	2.48	2.87	2.76	4.65	0.00	0.00	58.47	39.73	
Commis	45.34	79.62	61.75	79.83	94.68	265.28	0.00	0.00	646.49	661.17	
Commun	0.00	0.00	0.00	0.00	0.00	8.02	0.00	0.00	8.02	8.27	
Construct	138.87	254.65	143.36	173.86	388.15	659.96	10.74	1623.59	1622.81		
Contracts	0.00	0.00	0.00	0.00	0.00	9.85	0.00	9.85	4.54		
Controller	0.00	0.00	0.00	0.00	0.00	9.62	0.00	9.62	11.46		
E&NS	1.63	7.25	4.23	4.54	8.88	12.98	0.00	16.71	19.36		
Engineering	33.48	136.21	25.17	102.36	120.58	276.84	0.00	694.65	668.39		
Human Res	0.00	0.00	0.00	0.00	0.00	78.38	0.00	78.38	82.70		
IS&T	0.00	0.00	0.00	0.00	0.00	85.20	0.00	85.20	96.34		
PADC	0.17	0.31	0.36	0.32	0.53	70.60	0.00	72.28	39.88		
Proj Controls	1.54	2.93	1.96	2.72	2.71	52.77	0.00	64.61	67.92		
Plant Equip	33.05	235.33	30.74	142.77	212.20	20.35	0.00	674.45	708.09		
Process Tech	12.53	3.08	0.82	3.33	7.15	39.29	0.00	66.19	58.77		
Quality Assur	0.00	0.00	0.00	0.00	0.00	66.16	0.00	66.16	67.46		
R&T	0.00	58.04	0.00	54.34	53.88	79.38	0.00	245.63	237.54		
Support Serv	0.00	0.00	0.00	0.00	0.00	123.16	0.00	123.16	153.50		
WBS Totals	268.29	781.02	189.33	567.51	892.23	2,016.45	10.74	4,824.56			
Mar 03 Frst	300.14	813.83	210.11	579.14	948.04	2,004.51	0.00		4,855.77		

Milestone Summary			
Construction Completion	Con	PMB	APM
SBS Collection Vessel Installed		12/03	11/03A
Pre-assembly Inst Black Cell Pipe Mod		11/04	02/05
Commission Exchange Vessel Installed		02/05	02/05
Simulator Process Model Complete		05/06	05/06
Contract Schedule			
Set Feed Receipt Tanks in PT		03/05	11/04 11/04
Assembly of HLW Meter #1 Complete		12/07	06/07 06/07
Completion of Contract Requirements		07/11	07/11 07/11
TPA			
Start of Construction		07/02	07/02 07/02A
Begin Erection LAW First Struct Steel		11/03	08/03 07/03A
Complete HLW & LAW Meter #1		12/07	07/07 07/07
Start Cold Commissioning		02/09	08/08 08/08
Completion of Hot Commissioning		01/11	01/11 01/11

Total Project Commodity Summary							
Commodity	Engineering		Vendor		Construction		Total Project Budgeted
	Released	Scheduled	Delivered	Scheduled	Installed	Scheduled	
Concrete (yd3)	11,411	59,451	-	-	98,300	105,575	254,526
Structural Steel (ton)	10,147	8,167	57	6	625	747	21,001
Piping (LF)	132,297	121,050	886	-	5,781	9,254	719,314
Conduit (LF)	47,301	48,402	-	-	9,343	8,884	853,394
Cable Tray (LF)	11,155	8,595	-	-	886	1,640	107,465
Cable (LF)	18,656	68,127	-	-	-	989	5,037,165
HVAC Duct (lb.)	652,098	471,344	-	-	72,543	8,1543	3,832,903

LWC- Lost Work Cost  
 Plan-BCWS  
 UBM- Undistributed Bulk Materials  
 PMB- Performance Measurement Baseline  
 EAC- Estimate at Completion  
 TPA- Tri-Party Agreement  
 Con- Contract  
 APM- Area Project Manager Assessment

**March 04**  
**Cumulative to Date**

RPP  
WTP

Percent Complete (Based on \$)		
	Plan	Actual
Engineering	17%	17%
Construction	12%	14%
Total Project	12%	13%

Performance Indexes (Based on \$)										
	BOF	HLW	LAB	LAW	PT	Share Serv	UBM	Eng	Cons	Total Project
CPI	128	14	139	120	0.93	0.99	0.89	0.90	102	102
SPI	129	145	0.77	136	103	0.94	1.17	103	16	108
CSPi	128	130	108	128	0.98	0.97	0.93	0.96	109	105

Project Cost Current Month (\$ in Thousands)

	BOF		HLW		LAB		LAW		PT		Shared		UBM		OBS Totals	
	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan
Acq Services	4.2	0.5	1.7	0.6	0.5	0.2	1.1	0.2	0.5	0.8	1834.0	2,544.6	0.0	0.0	1700.0	2,606.0
Business Mgmt	28.7	21.3	26.3	36.5	1.1	36.5	4.7	36.5	31.2	35.5	-7,915.5	502.1	0.0	0.0	-7,899.9	667.3
Commissioning	22.3	19.2	26.8	26.9	26.8	20.1	29.5	31.6	26.7	24.3	410.3	1201.7	0.0	0.0	522.3	1823.7
Communications	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.0	80.0	0.0	0.0	62.0	80.0
Construction	2,570.6	2,373.2	1,546.1	1,758.9	1.2	4.7	1,207.3	628.0	5,599.3	5,985.6	7,910.0	6,773.8	3,576.5	2,201.5	22,321.3	18,654.6
Contracts	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.7	73.7	0.0	0.0	67.1	73.7
Controller	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	94.0	94.7	0.0	0.0	94.6	94.7
E&S	-54.7	12.7	2.3	58.1	60.8	56.0	55.3	40.3	80.4	47.9	657.4	602.6	0.0	0.0	789.0	87.6
Engineering	751.6	763.1	2,420.6	1,895.9	557.8	727.0	1,686.3	2,223.8	3,308.9	2,842.4	4,469.9	3,337.0	0.0	0.0	3,816	11,609.3
Human Resources	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.5	403.6	0.0	0.0	62.8	403.6
IS&T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	682.8	1061.2	0.0	0.0	690.9	1061.2
PADC	0.0	3.8	9.1	54.8	8.9	71.9	7.0	54.8	8.6	81.5	797.3	-344.2	0.0	0.0	831.5	-77.5
Project Controls	36.3	40.9	99.9	62.5	41.9	38.2	71.7	77.1	76.5	55.1	603.2	579.2	0.0	0.0	927.2	862.9
Plant Equipment	1,735.9	1,544.1	3,212.8	4,495.8	70.2	368.9	1,638.8	2,548.7	6,995.7	5,336.9	0.2	169.4	0.0	0.0	13,666.5	14,463.7
Process Tech	31.7	174.3	3.0	36.6	0.0	8.5	1.1	35.9	21.7	91.0	57.8	228.1	0.0	0.0	575.2	573.4
QA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	536.1	530.0	0.0	0.0	536.3	530.0
R&T	0.0	0.0	132.6	-1667.6	0.0	0.0	-776.2	-2,319.7	47.0	28.12	1,642.5	5,073.9	0.0	0.0	1,434.1	1,337.9
Support Services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1039.6	1,620.0	0.0	0.0	1041.4	1,620.0
WBS Totals	5,336.7	5,086.0	8,496.0	6,640.9	807.1	1,451.0	3,951.6	3,467.1	16,582.7	14,915.2	23,038.6	24,073.3	3,575.5	2,201.5	61,974.0	57,794.0

Project Hours Current Month (in Thousands)

	BOF		HLW		LAB		LAW		PT		Shared		OBS Totals		O/T
	Actual	Plan	Actual	Plan	Actual	Plan									
Engineering	10.30	11.29	32.50	22.74	7.70	0.77	20.54	31.09	49.42	42.48	54.79	43.37	175.53	61.75	10.6%
Const Manual	25.70	20.41	26.33	29.37	0.00	0.00	16.08	4.42	59.44	65.47	32.74	41.09	60.28	80.76	2.7%
Const Non-Man	6.97	7.60	6.15	5.66	0.19	0.26	5.24	6.56	7.13	9.04	41.71	43.81	67.53	72.93	
Acq Services	0.03	0.14	0.20	0.14	0.03	0.15	0.17	0.15	0.15	0.14	18.97	18.46	19.70	20.17	2.5%
E&S	0.19	0.24	0.83	0.77	0.83	0.78	0.79	0.68	0.80	0.70	5.95	7.38	9.41	10.56	0.9%
R&T	0.00	0.00	0.53	1.22	0.00	0.00	0.32	0.79	-0.37	0.46	5.00	5.58	5.47	6.05	0.8%
Process Tech	0.38	1.27	0.04	0.70	0.00	0.14	0.02	0.70	0.00	1.61	5.60	2.53	6.23	6.95	0.3%
Commissioning	0.26	1.84	0.30	1.90	0.31	1.71	0.35	1.97	0.29	1.81	2.69	7.89	4.19	17.11	0.6%
Bus Serv & LOE	0.90	1.06	1.82	3.46	1.6	3.03	1.29	3.60	1.73	3.87	58.75	25.94	65.95	40.96	2.4%
WBS Totals	44.84	43.84	68.89	65.97	10.33	16.84	44.90	49.95	118.60	145.59	226.41	197.05	514.28	519.24	5.1%

Total Project Commodity Summary

Commodity	Engineering		Vendor		Construction	
	Released	Scheduled	Delivered	Scheduled	Installed	Scheduled
Concrete (yd3)	3,382	5,303	-	-	2,356	5,528
Structural Steel (ton)	1,739	104	57	6	26	53
Piping (LF)	23,564	11,438	886	-	434	2,314
Conduit (LF)	2,425	4,381	-	-	685	1,402
Cable Tray (LF)	3,812	0	-	-	0	450
Cable (LF)	70,375	11,358	-	-	0	809
HVAC Duct (lb.)	0	31,167	-	-	0	0

March 04  
Current Period

Funding

Project Funding Cumulative (\$ in millions)												
	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04
Act Cost	1268	1318	1369	1427	1470	1526	1587	0	0	0	0	0
Bud Cost	1286	1362	1416	1459	1500	1553	1620	1714	1780	1842	1905	1970
Act Cost & Commit	1467	1489	1572	1643	1693	1745	1804	0	0	0	0	0
Bud Cost & Commit	1348	1437	1529	1590	1654	1728	1793	1891	1966	2,017	2,081	2,148
Act Funding	1695	1759	1799	1941	2,063	2,063	2,063	0	0	0	0	0
Bud Funding	1708	1881	1881	1881	2,053	2,053	2,053	2,226	2,226	2,226	2,398	2,398

BECHTEL WTP Project Controls Smart Sheet

## Milestone M-43-00, Tank Farm Upgrades

### I. Near-Term Deliverables:

- **M-43-00**, Complete Tank Farm Upgrades  
Due: 06/30/05  
Status: Monitoring field conditions and schedule performance. See Issues below.

### II. Significant Accomplishments:

- W-314, Phase 2 AN Farm: Completed and released project as-built drawings.
- W-314, Phase 2 SY Farm: Completed SY-02A Pit Upgrade
- W-314, Phase 2 AP Farm: Complete application of Special Protective Coating in AP-01A pit
- W-314, Phase 2 A-A Valve Pit Bypass: Completed pipe fabrication
- E-525: Initiated SY Transfer line upgrade construction
- E-525: Initiated AZ-301 excavation preparations

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

- W-314, Phase 2 AN Farm: Complete operations acceptance testing and turnover.
- W-314, Phase 2 AP Farm: Complete 9 pit upgrades, electrical and instrument construction
- W-314, Phase 2 AW Farm: Complete operations acceptance testing and turnover
- W-314, Phase 2 SY Farm: Complete pit upgrades
- W-314, Phase 2 AY/AZ Farm: Complete upgrades
- W-314, A-A Valve pit bypass: Deliver and install pipe
- W-314, MPS/M&CS: Complete operations acceptance testing and turnover
- E-525: Complete 204-AR construction
- E-525: Complete AZ-301 fabrication and testing
- E-525: Complete condensate and drain pipe procurement

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

- 
- Deliver updated E-525 drawings to Ecology (B. Jensen)

### V. Issues:

- Field work schedules have been impacted by tank vapor issues and implementation of respiratory policy.  
Action: CH2M HILL is preparing recovery plans for all field projects, including W-314 and E-525.
- High radiation/contamination is being found during Clean Out box (COB) modifications.  
Action: CH2M HILL is using additional shielding, HPT coverage and glove bag changes to handle the conditions. A COB restart plan was prepared for AW SOB work.

## Milestone M-46-00, Double-Shell Tank Space Evaluation

### I. Deliverables:

- **M-46-00J**, Double-Shell Tank Space Evaluation  
Due: 09/30/03  
Status: **Complete**. Document was transmitted from ORP to Ecology in Letter 03-TPD-093, R.J. Schepens (ORP) to M.A. Wilson (Ecology), "Completion of Hanford Federal Facility Consent Order (HFFACO) Interim Milestones M-045-02L and M-046-00J, dated September 25, 2003.
- **M-46-01J**, Concurrence of Additional Tank Acquisition  
Due: 08/12/04  
Status: Ecology Action. Review and concurrence deferred to evaluate impacts from M45 negotiations.
- **M-46-00K**, Double-Shell Tank Space Evaluation  
Due: 09/30/04  
Status: On hold in anticipation of M-45 TPA change.
- **M-46-01K**, Concurrence of Additional Tank Acquisition  
Due: 11/30/04  
Status: On schedule
- **M-46-00L**, Double-Shell Tank Space Evaluation  
Due: 09/30/05  
Status: On schedule
- **M-46-01L**, Concurrence of Additional Tank Acquisition  
Due: 11/30/05  
Status: On schedule
- **M-46-00M**, Double-Shell Tank Space Evaluation  
Due: 09/30/06  
Status: On schedule
- **M-46-01M**, Concurrence of Additional Tank Acquisition  
Due: 11/30/06  
Status: On schedule
- **M-46-21**, Complete implementation of Double Shell Tank Space Optimization Study recommendations (Tank Space Options report, Document No. RPP-7702, April 12, 2001)  
Due: 12/31/05

DST space scope is being tracked to implement four space optimization recommendations and tank space management efforts as identified below.

(1) Increase the DST fill height

Status: The Report of Expert Panel Workshop for Hanford Site Double-Shell Tank Waste Level Increase (RPP-19438) was issued January 2004. Activities for fill height increase in the AP tank farm have begun, including safety analysis, ultrasonic testing of the DSTs, raising instrument probes, replacing tank riser extensions and procedural changes. AP tank farm (AP-104) is planned for the first tank fill height increase.

(2) Reserve emergency space to reflect compliance with DOE Order 435.1 for the DST system (provides 1.1 M gallons of DST space)

Status: **Complete**

(3) Implement tank-by-tank evaluations to allow greater concentration of wastes beyond current 1.41 SpG limit

Status: Tank-by-Tank boil down tests are conducted prior to each evaporator campaign to establish expected waste behavior (solids vs. SpG) and process control parameters. Facility modifications are being planned, or are underway, to support routine operations at higher SpGs including:

- Reactivate the airlift circulators in AW-102
- Install a densitometer in AW-102
- Test the 242-AW Evaporator densitometer (**Complete**)
- Test the 242-AW Evaporator slurry sampler (**Complete**)
- Reactivate the AP farm slurry level measurement system
- Activate the 2" slurry line from 242-A evaporator to AP tank farm
- Evaluate the need for transfer line heat trace/ activate if necessary

(4) Use space currently identified as "restricted" space in tanks that contain staged feed for WTP

Status: Process controls have been developed and reviewed by ORP to allow use of restricted tank head space that contains previously sampled WTP feed. Tank waste compositions and transfer plans are being evaluated for combining AP-101 and AY-102 wastes. In addition, other "Restricted Tank" transfers are being planned (i.e. AP-104, AY-101, AZ-102).

**II. Significant Accomplishments:**

- Nothing to report.

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

- Evaporator campaigns as shown in the attached table.
- Provide updated information on the SST Retrieval Sequence/DST Space document in support of TPA M-45 change request.

**IV. Issues:**

- None to report.

### M-46-21 Project Managers Monthly Report: Evaporator Campaign Plans and Actuals

	Nov-02	Jan-03	Feb-03	Jul-03	Aug-03	Mar-04	Apr-05	May-05	Jun-05	Jul-04	Aug-05	Nov-05	Dec-05
Campaign	2002-02	2003-01	2003-02	2003-03	2003-04	2004-01	2005-01	2005-02	2005-03	2005-04	2005-05	2005-06	2005-07
Staging Tk	AP-107	AP-108	AP-107	AP-108	SY-101	AP-105	AP-107	AP-104	AW-106	AP-105	AP-107	AY-101	AP-101
Campaign Boil-off Upper Planned Limit- kGallons	387.1	268.4	241.4	497.0	120.9	185	329*	426*	277*	382*	485*	586*	333*
Campaign Boil-off Actual kGallons	384.2	281.7	243.1	464.6	136.1	164							
Target WVR% (Post-Flush)	38%	25%	25%	40%	20%	19%	TBD						
Actual WVR% (Post-Flush)	38.0%	26.0%	25.0%	39.0%	22.5%	17%							
Specific Gravity				1.46	1.42	1.43							

**Data Sources:**

Evaporator Schedule from: Historical records, IMES, and HTWOS model  
 Campaign Upper Limits: Boil down tests prior to each run, model runs are used for preliminary information  
 Actual WVR and SpG: Evaporator instruments, tank instruments and laboratory reports

\*Indicates Campaign Upper Planned Limit boil off gallons, are based upon model estimates pending laboratory boil off tests and process control plan

## 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-47-01**, Complete construction of the transfer line system from the 241-AP Tank Farm to the WTP Facility to support the start of hot commissioning of the Phase I Tank Waste Treatment Complex  
Due: 03/31/06  
Status: **Complete**. Official notification provided in letter ORP to Ecology 03-TPD-123, dated December 10, 2003.
- **M-47-02**, Complete startup and turnover activities for required transfer system upgrades to allow transfer of first high-level waste feed to the Pretreatment/Treatment Complex  
Due: 03/31/09  
Status: Ahead of schedule.
  - W-314 completed construction of new transfer lines from AZ to AP tank farms (SN-634, SN-636, and SN-637).
  - W-211 completed AP to WTP transfer system construction
  - W-211 completed AP-02A and AP-O2D pit modifications construction. (See M-47-01).
- **M-47-04**, Complete startup and turnover activities for required transfer system upgrades to allow transfer of first low-activity waste feed to the pretreatment/treatment complex. Installation of the pump will not be required until necessary to support WTP waste feed activities.  
Due: 03/31/09  
Status: Ahead of schedule.
  - AP-101 transfer pump was installed March 2004.
  - Transfer piping is addressed in M-47-02.
  - Startup and turnover of AP-101 transfer pump is scheduled for 4Q FY2004.
- **M-47-05**, Start construction of waste retrieval and mobilization systems for selected initial low-activity waste feed tank (other than AZ-101 and AZ-102)  
Due: 05/31/04  
Status: **Complete**. Official notification provided in letter ORP to Ecology 03-TPD-114, dated November 17, 2003.
- **M-47-05A**, 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)  
Due: 04/30/06  
Status: Ahead of schedule.
  - AP-101 Transfer pump was installed March 2004.
  - Turnover to operations is scheduled for 4Q FY2004.

**Out year (Post 2006) Milestones:**

- **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: Ahead of schedule.
  - AZ-101 Retrieval system upgrades are nearing completion (w/exception of transfer pump installation)
  - AY-102 Title II design is ongoing.
- **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:**

- Completed construction acceptance testing of AN Infrastructure diluent/flush system.
- Awarded the contract for the fabrication of the AN-101 decant/transfer pump.
- Completed the 30% design review of the Title II design for the AY-102 Retrieval System.

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

- W-211, AZ-101 Retrieval System, complete construction punch list and project turnover (delayed transfer pump installation to FY08).
- AP-101, transfer pump turnover to operations

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

- None

**V. Issues:**

- Field work has been limited due to tank vapors and implementation of respiratory policy.  
Action: CH2M HILL is preparing plans for all field projects to support milestone completion.
- U.S. District Court labor ruling for use of Plant Forces on Tank Intrusive work requires re-planning of resources and schedule for W-211 work scope.

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

### I. Near-Term Deliverables:

- **M-45-55-T03**, Submit to Ecology for review and comment as an Agreement secondary document a Field Investigation Report pursuant to the site-specific SST WMA Phase I RFI/CMS Work Plan addenda for WMA T, TX, and TY  
Due: 1/31/05  
Status: Fieldwork completed, lab work continues, writing of document has begun.
- **M-45-55-T04**, Submit to Ecology for review and comment a draft of the A-AX, C, and U Field Investigation Report.  
Due: 1/31/06  
Status: Field work to be completed in FY04 and FY05, lab work to begin after 1/04, writing of document to begin in FY05.
- **M-45-55**, Submit to Ecology for review and approval as an Agreement primary document a Phase 1 RFI report integrating results of data gathering activities and evaluations for WMAs S-SX, T, TX-TY, A-AX, B-BX-BY, C, and U; and related activities, including groundwater monitoring and impacts assessment using Hanford Site groundwater models, with conclusions and recommendations  
Due: 1/31/07  
Status: Work not started; forecast on schedule.
- **M-45-58**, Submit to Ecology for review and approval as an Agreement primary document a RCRA Corrective Actions Corrective Measures Study for WMAs S-SX, T-TX-TY, B-BX-BY, A-AX, C, and U.  
Due: 06/30/07  
Status: Work not started; forecast on schedule.
- **M-45-60**, Submit to Ecology for review and approval as an Agreement primary document DOE's RCRA Corrective Actions Work Plan for SST WMAs  
Due: 09/30/07  
Status: Work not started; forecast on schedule.

### II. Significant Accomplishments:

- A new Vadose Zone characterization borehole was completed near C-105.
- Study is continuing to determine the cause of corrosion of two groundwater monitoring wells at WMA A-Ax.
- RCRA Groundwater monitoring detection wells are being installed at SST WMA's.

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

- Continue work on T/TX-TY Field Investigation Report.
- Complete Vadose Zone field work in C Farm.

- Complete numerical analysis of neutron and spectral gamma logging data from dry wells near C-106.
- Initiate geophysical logging in laterals beneath 241-A and 241-SX tank farms

**IV. Issues:**

- Plan work to incorporate new respiratory procedures at Vadose zone sites in Tank Farms

**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-20-56**, Submit Canister Storage Facility Part B Permit Application  
Due: 6/30/03  
Status: **Complete**
  
- **M-20-57**, Submit ILAW Disposal Facility Certified Part B Permit Application to Ecology  
Due: 6/30/03  
Status: **Complete**
  
- **M-90-09-T01**, Complete Detailed Design of ILAW Disposal Facility Critical Systems to 80%  
Due: 5/30/03  
Status: **Complete**
  
- **M-90-08**, Initiate ILAW Disposal Facility Construction  
Due: 2/28/05  
Status: On schedule

**Out year (Post 2006) milestones:**

- **M-90-10**, Initiate Placement of ILAW Waste Canisters in ILAW Disposal Facility  
Due: 8/31/08  
Status: On schedule
  
- **M-90-11**, Complete Canister Storage Facility Construction  
Due: 8/31/10  
Status: On schedule

**II. Significant Accomplishments:**

- Initiated laboratory analysis of soil and vegetation samples to support the pre-operational monitoring plan – April 2004
- Completed Hanford Shipping Facility Level 1 Specification – April 2004
- Completed design change and amended RCRA Part B Permit Application to incorporate a secondary leak detection system into IDF – May 2004
- Initiated preparation of the Waste Acceptance Criteria document for IDF – May 2004

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

- Hold a meeting with Ecology to lay out a path forward for preparation of a RCRA Part B permitting plan for the Canister Storage Building - May 2004
- Complete W-464 Detailed Design -May 2004
- Award IDF site utilities contract – June 2004, see “Issues”
- Complete IDF operation support documents (i.e. Inspection Plan, CATs) – August 2004
- Update the IDF Pre-Operation Monitoring plan – September 2004
- Issue IDF Waste Acceptance Criteria document – September 2004
- Draft Tank Farm DSA modification to incorporate IDF – September 2004
- Issue Performance Assessment Annual Summary– September 2004
- Ecology issues a RCRA Part B Permit for IDF to DOE – October 2004

**IV. Issues**

The delay in the Record of Decision for the Solid Waste Environmental Impact Statement has impacted the start of the IDF site preparation and utility installation scheduled for 2004.

## Milestone M-23-00, Tank Integrity and Monitoring

### I. Near-Term Deliverables:

- **M-23-23**, Submit SST System Leak Detection and Monitoring F&R Document  
Due: 06/15/02  
Status: **Completed**
- **M-23-25B**, Complete the Installation of Liquid Observation Wells (LOWs) and Begin Liquid Observation  
Due: 09/30/02  
Status: **Completed**
- **M-23-25C**, Complete the Installation of Liquid Observation Wells (LOWs) and Begin Liquid Observation  
Due: 03/31/03  
Status: **Completed**
- **M-23-25D**, Complete the Installation of Liquid Observation Wells (LOWs) and Begin Monitoring  
Due: 09/30/03  
Status: **Completed**
- **M-23-26**, Submit a Schedule, as a Primary Document, for Performing Liquid Level Assessments  
Due: 09/30/03  
Status: **Completed**
- **M-23-25F**, Complete the Installation of Liquid Observation Wells (LOWs) and Begin Monitoring  
Due: 03/31/04  
Status: **Completed**
- **M-23-25G**, Complete the Installation of Liquid Observation Wells (LOWs) and Begin Monitoring  
Due: 03/31/05  
Status: On schedule; due date changed from 09/30/04 to 03/31/05 per TPA Change Request M-23-04-01 (LOWs for C-102, C103, C-105, and C-112 which are under accelerated retrieval)
- **M-23-27**, Complete 244-CR Liquid Level Assessments  
Due: 12/30/04  
Status: On schedule

**II. Significant Accomplishments:**

- M-23-25F completed; LOWs installed in SX112, T-101, TX-103, and TX-104.

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

- Continue monitoring LOWs installed under M-23-25F.
- Continue LOW installation work under M-23-25G, as amended by TPA Change Request M-23-04-01, for C-102, C-103, C-105, and C-112 (C Farm tanks under accelerated retrieval).
- Install replacement LOW in TX-116. Currently planned for June 7-11, 2004.

**IV. Issues:**

- During replacement of the LOW in TX-116, the LOW was damaged. That LOW will be removed and a replacement installed following completion of M-23-25 LOW installations. Difficulties in existing riser has resulted in the need to install the replacement LOW in an alternate riser; ECN and Work Package being prepared; forecast completion by April 30, 2004. Due to vapor issues in tank farms, currently planned for installation the week of June 7-11, 2004.

## Interim Stabilization Consent Decree

### I. Near-Term Deliverables:

- Reduce Total Liquids to 2% of Total Volume from SSTs (D-001-00V)  
Due: 09/30/03  
Status: **Completed**. Letter sent to Ecology 09/10/03.
- Complete Interim Stabilization of all 29 SSTs (D-001-00)  
Due: 09/30/04  
Status: **Completed** on 03/18/04 with discontinuation of pumping in U-108 and subsequent consultation with Ecology staff. Interim stabilization of S-102 and S-112 held in abeyance by 3<sup>rd</sup> amendment to the Consent Decree; these two tanks are undergoing accelerated retrieval. ORP's obligation to interim stabilize S-102 and S-112 will be satisfied upon completion of accelerated retrieval operations.

### II. Significant Accomplishments:

- Completed pumping in U-108 thereby satisfying Consent Decree Target Milestone D-001-11-T01, "Complete Pumping of U-108, U-107, S-111, and SX-102."
- Completed Consent Decree Milestone D-001-00, "DOE Shall Complete Interim Stabilization of al 29 Single-Shell Tanks," as amended, roughly 6-months ahead of schedule.
- Of the sixteen SSTs included in FY 2003 scope: Nine tanks documented as being interim stabilized (AX-101, BY-105, C-103, S-101, S-107, SX-101, SX-103, U-107, and U-111). Pumping has been completed in all tanks. Two tanks transitioned to accelerated retrieval in lieu of interim stabilization in accordance with the Third Amendment to the Consent Decree signed by a District Court Judge on 09/9/03 (S-102, S-112). Five tanks completed pumping and are in evaluation to document completion of pumping and satisfaction of interim stabilization criteria (A-101, BY-106, S-111, SX-102, and U-108).
- Completed "Single-Shell Tank Interim Stabilization Activity Report for the First Quarter of FY 2004" (Consent Decree Milestone D-001-00-R19) and transmitted from ORP to Ecology on 1/29/04.
- Completed Consent Decree Milestone D-001-00-R20, "Single-Shell Tank Interim Stabilization Activity Report for the Second Quarter of Fiscal Year 2004." Final report was transmitted from ORP to Ecology on 04/28/04 ahead of the 04/30/04 due date.
- Approximately 3,034.3 Kgal of pumpable liquids have been removed from SSTs and transferred to DSTs since pumping began in June 1998 (excluding S-102 and S-112).

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

- Complete and issue the Interim Stabilization Evaluation Forms for the five tanks in evaluation mode (A-101, BY-106, S-107, S-111, and SX-102) documenting completion of pumping and satisfaction of interim stabilization criteria.
- Issue quarterly Single-Shell Tank Interim Stabilization Activity Reports to Ecology by 07/31/04 (Consent Decree Milestone D-001-00-R21) and 10/31/04 (Consent Decree Milestone D-001-00-R22).

**IV. Issues:**

- None

## Milestone M-48-00, DST Integrity Assessment Program

### I. Deliverables:

- **M-48-02**, Submit to Ecology a Report Assessing Technology Development  
Due: 9/17/00 and every six months thereafter until equipment is deployed  
Status: **Complete**. The "Tandem Synthetic Aperture Focus Techniques (TSAFT) Final Report was delivered to Ecology September 3, 2003. ORP letter 03-TOD-064. Ecology letter of October 24, 2003 (Jeff Lyon to Roy Schepens) acknowledges ORP letter and considers this milestone closed.
  
- **M-48-10**, Submit Results of Four DSTs not Previously Examined  
Due: 9/30/02  
Status: **Complete**
  
- **M-48-11**, Submit Results of Four DSTs not previously examined  
Due: 9/30/03  
Status: **Complete**. ORP letter 03-TOD-063 sent to Ecology on 9/4/03. Ecology letter of October 24, 2003 (Jeff Lyon to Roy Schepens) approves ORP's request for proposed DSTs to be ultrasonically tested in FY 2004.
  
- **M-48-12**, Submit Results of Four DSTs not Previously Examined  
Due: 9/30/04  
Status: On schedule
  
- **M-48-13**, Submit Results of Four DSTs not Previously Examined  
Due: 9/30/05  
Status: On schedule
  
- **M-48-14**, Submit Written Integrity Report for the DST System  
Due: 3/31/06  
Status: On schedule
  
- **M-48-15**, Submit a Report to Ecology for the Re-examination of Six DSTs by Ultrasonic Testing  
Due: 9/30/07  
Status: On schedule
  
- **M-48-00**, Complete Tank Integrity Assessment Activities for Hanford Double Shell Tanks System  
Due: 9/30/07  
Status: On schedule

**II. Significant Accomplishments:**

- Completed SY-103 ultrasonic integrity (UT) examination report. Draft report is out for review and comment.
- SY-101 UT field work is complete with the exception of the SAFT/TSAFT examination of the lower knuckle
- SY-102 UT examinations (TSAFT) continues
- Started the equipment set-up in AP farm for the AP-104 UT examination

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

- Complete the remaining portion of SY-102 and AP-104 UT examinations
- Complete and Issue the M-48-12 examination reports for SY-103, SY-101, SY-102, and AP-104.
- Complete video inspections of AP-102, AP-103, and AP-104.

**IV. Issues:**

- New respiratory requirements in all of the tank farms have slowed the pace of the work resulting in some work having to be deferred to FY05. A recovery plan is being implemented to bring on a second UT crew for FY05 to complete the deferred work and complete the M-48-13 milestone work.

## Milestone M-45-00, Complete Closure of All Single-Shell Tank Farms

### I. SST Retrieval and Closure Program

- **M-45-00C**, "Complete Renegotiation of Second Phase SST Waste Retrieval Activities" (September 30, 2006 through September 30, 2015)  
Due: 02/28/04  
Status: **Completed**
- **M-45-06-T20A**, "Submit SST System Implementation Plan in Support of Retrieval and Closure Activities"  
Due: 06/30/04  
Status: On hold pending approval of M-45-04-01 change request.
- **M-45-06-T20B**, "Submit SST System Implementation Plan in Support of Retrieval and Closure Activities"  
Due: 06/30/06  
Status: On schedule
- **M-45-06-T20C**, "Submit SST System Implementation Plan in Support of Retrieval and Closure Activities"  
Due: 06/30/08 (and every two years thereafter)  
Status: On schedule
- **M-45-00D**, "Complete Renegotiation of the Remainder of the SST Waste Retrieval and Closure Program"  
Due: 06/30/2011  
Status: On schedule
- **M-45-06-T03**, "Initiate Closure Actions on an Operable Unit or Tank Farm Basis. Closure shall follow completion of the retrieval actions under proposed milestone M-45-05."  
Due: 03/31/2012  
Status: On schedule
- **M-45-06-T04**, "Complete Closure Actions on one Operable Unit or Tank Farm"  
Due: 03/31/2014  
Status: On schedule
- **M-45-00**, "Complete Closure of all SST Farms"  
Due: 09/30/2024  
Status: On schedule
- **M-45-06**, "Complete Closure of all SST Farms in Accordance with Approved Closure/Post Closure Plans"  
Due: 09/30/2024  
Status: On schedule

## II. SST Retrieval Sequence Document

- **M-45-02L**, "Submit Annual Updates to SST Retrieval Sequence Document"  
Due: 09/30/03  
Status: **Completed**. ORP letter 03-TPD-093, dated 09/25/03.
- **M-45-02M**, "Submit Annual Updates to SST Retrieval Sequence Document"  
Due: 09/30/04  
Status: On schedule
- **M-45-02N**, "Submit Annual Updates to SST Retrieval Sequence Document"  
Due: 09/30/05  
Status: On schedule
- **M-45-02O**, "Submit Annual Updates to SST Retrieval Sequence Document"  
Due: 09/30/06  
Status: On schedule
- **M-45-02P**, "Submit Annual Updates to SST Retrieval Sequence Document"  
Due: 09/30/07 (and annually thereafter)  
Status: On schedule

## III. SST Retrieval Demonstration Projects

- **M-45-00B**, "Complete Near-Term SST Waste Retrieval Activities"  
Due: 09/30/06  
Status: On schedule per supporting milestones, as noted below.

### C-106

- **M-45-06A**, "Submit a Certified (Framework) SST System Closure Plan and C-106 Waste Retrieval and Closure Demonstration Plan"  
Due: 12/19/02  
Status: **Completed**. 12/17/02.
- **M-45-05J-T01**, "Complete C-106 Waste Retrieval and Closure Demonstration Project Design (including all physical systems and design/operating strategies for LDMM)"  
Due: 04/30/03  
Status: **Completed**. C-106 was pumped week of 03/31/03.
- **M-45-05K-T01**, "Complete C-106 Waste Retrieval and Closure Demonstration Project Construction (including all physical systems and design/operating strategies for LDMM)"  
Due: 09/30/03  
Status: **Completed**. ORP letter 03-TPD-082, dated 08/21/03.

- **M-45-05L-T01**, "Complete Full Scale C-106 Waste Retrieval"  
Due: 11/1/03  
Status: C-106 retrieval completed to limits of acid dissolution and modified sluicing technology on 12/31/03. Appendix H exemption request to be submitted to Ecology by 05/28/04.
- **M-45-05M-T01**, "Submit C-106 Waste Retrieval Results, Analysis of Residual Waste(s), and (if appropriate) Request for Exemption to the Criteria Pursuant to Agreement Appendix H"  
Due: 02/27/04  
Status: RPP-20110, "Retrieval Data Report for Tank 241-C-106" transmitted to ORP on 02/26/04 partially satisfying M-45-05M-T01. The C-106 residual waste analysis, risk assessment, and the Appendix H exemption request will be transmitted to Ecology by May 28, 2004.
- **M-45-05H**, "Interim Completion of Tank C-106 SST Waste Retrieval and Closure Demonstration Project"  
Due: 06/30/04  
Status: On schedule. Due date and criteria for completion revised per M-45-04-02, approved on 04/30/04.
- **M-45-05N-T01**, "Final Completion of Tank C-106 SST Retrieval and Closure Demonstration Project"  
Due: 06/30/05  
Status: On schedule. Due date revised per M-45-04-02, approved on 04/30/04.

**Significant Accomplishments:**

- Installed sight glass on POR-008.
- Procured closure containment tent for Pit 06A.
- Awarded a design contract for tank preparation and Phase 1 tank fill for C-106.
- Submitted C-106 Waste Residual Results, supporting completion for M-45-05M-T01.
- Initiated preparation of C-106 Stage II submittal of the Retrieval Data Report.
- Completed the C-106 risk assessment section for the Retrieval Data Report.
- Issued RPP-20658, "Basis for Exception to the Hanford Federal Facility Agreement and Consent Order Waste Retrieval Criteria for Single-Shell Tank 241-C-106"
- Removed sluicing equipment from the field for reuse on Tank 241-C-103.
- Completed C-106 Laboratory Data Package verification and validation.
- Initiated PNNL efforts on the C-106 Release Rate Studies.
- Generated the auth Tank Characterization Report (TCR) for C-106.

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

- Continue preparations for C-106 interim closure.
- Continue design of tank preparations and Phase I tank fill.
- Complete M-45-05M-T01, "Submit C-106 Waste Retrieval Results, Analysis of Residual Wastes, and (if appropriate) request for exception to the criteria pursuant to Appendix H of the Agreement
- Continue Interim completion for C-106 waste retrieval and closure demonstration project (M-45-05H)
- Submit SST Systems Implementation Plan in Support of Retrieval and Closure Activities (M-45-06-T20A)

**Issues:**

- C-106 Closure Plan will not be approved by Ecology until after the Tank Closure Environmental Impact Statement Record of Decision is issued.
- Due to air respirator requirements in tank farms, C-106 isolation field work has been delayed into FY 2005.

**S-112**

- **M-45-03D**, "Complete S-112 Saltcake Waste Retrieval Technology Demonstration Design" (all physical systems including LDMM provisions)  
Due: 05/31/03  
Status: **Completed**. ORP letter 03-TPD-048, dated 05/22/03.
- **M-45-03E**, "Complete S-112 Saltcake Waste Retrieval Technology Demonstration Construction (all physical systems including LDMM provisions)"  
Due: 03/31/04  
Status: **Completed**. ORP letter 03-TPD-112, dated 11/7/03.
- **M-45-06B**, "Submit a Certified (Framework) SST System Closure Plan and S-112 Waste Retrieval and Closure Demonstration Plan  
Due: 09/30/04  
Status: On schedule
- **M-45-03C**, "Complete Full-Scale Saltcake Waste Retrieval Technology Demonstration at Tank S-112 (all physical systems including LDMM provisions)"  
Due: 03/31/05  
Status: On accelerated schedule. Forecast completion by 09/15/04.
- **M-45-13**, "Interim Completion of Tank S-112 Waste Retrieval and Closure Demonstration Project"  
Due: 12/31/05  
Status: On accelerated schedule. Forecast completion by 09/03/05.

- **M-45-13-T01**, "Final Completion of Tank S-112 SST Retrieval and Closure Demonstration Project"  
Due: 12/30/06  
Status: On accelerated schedule. Forecast completion by 11/27/05.

**Significant Accomplishments:**

- Retrieval is at 82.9% (509 Kgal)
- Awarded a design contract for tank preparation and Phase I tank fill for S-112.
- Completed CH2M HILL certification for S-112 closure plan and submitted to ORP.
- Issued tank isolation design for S-112.
- Completed testing of clamshell samplers for S-112.
- Completed fabrication of demister and initiated installation.

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

- Complete installation of demister
- Complete retrieval of S-112
- Conduct post retrieval sampling of S-112 for closure
- Issue retrieval data report and other information documenting completion of retrieval operations.
- Submit a Certified (Framework) SST System Closure Plan Modification and Waste Retrieval and Closure Demonstration Plan to Ecology for review and approval.

**Issues:**

- Retrieval was halted pending resolution of Washington Department of Health (WDOH) concerns with exhaustor operation. Corrective actions are being taken to respond to WDOH requirements for installation of a demister for moisture control.
- Field work supporting demister installation on hold pending resolution of vapor issues.

**S-102**

- **M-45-05B**, "Complete S-102 Initial Retrieval Project Design (all physical systems including LDMM provisions)  
Due: 05/31/03  
Status: **Completed**. ORP letter 03-TPD-048, dated 05/22/03.
- **M-45-05C**, "Complete S-102 Initial Waste Retrieval Project Construction (all physical systems including LDMM provisions)"  
Due: 03/31/04  
Status: **Completed** 03/1/04.

- **M-45-06C**, "Submit a Certified (Framework) SST System Closure Plan and S-102 Waste Retrieval and Closure Demonstration Plan  
Due: 09/30/04  
Status: On schedule.
- **M-45-05A**, "Complete Initial Waste Retrieval from SST S-102"  
Due: 03/31/05  
Status: On accelerated schedule. Forecast completion by 01/08/05.
- **M-45-15**, "Interim Completion of Tank S-102 SST Waste Retrieval and Closure Demonstration Project"  
Due: 12/31/05  
Status: On accelerated schedule. Forecast completion by 09/03/05.
- **M-45-15-T01**, "Final Completion of Tank S-102 SST Retrieval and Closure Demonstration Project"  
Due: 12/31/06  
Status: On accelerated schedule. Forecast completion by 12/15/05.

**Significant Accomplishments:**

- Completed installation of camera system
- Completed S-102 construction and signed Construction Completion Document (CCD) Part 1a, supporting completion of M-45-05C
- Completed installation and construction acceptance testing of the retrieval equipment
- Issued operating procedures
- Issued POR05 exhauster operating procedure and alarm response procedure
- Issued software design description and installed software
- Initiated exhauster Operations Acceptance Test
- Awarded a design contract for tank preparation and Phase I tank fill for S-102
- Completed CH2M HILL certification for the S-102 closure plan and submitted to ORP
- Issued tank isolation design for S-102
- Installed new spool piece on inlet filter and completed vacuum decay test.
- Completed waste compatibility study.
- Fabricated test manifold to support Process Water Protection System Functional Test.
- Initiated training plan.
- Completed fabrication of manifold for S-A pit to allow concurrent S-102 and S-112 waste retrieval.
- Completed fabrication of demister and assembly to condenser pit cover plate.

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

- Install demister on exhaust system to control moisture
- Initiate retrieval operations
- Submit a Certified (Framework) SST System Closure Plan Modification and Waste Retrieval and Closure Demonstration Plan for S-102 to Ecology

**Issues:**

- A demister is being installed on the exhaust system in response to WDOH direction.
- Field work supporting demister installation and system testing on hold pending resolution of vapor issues.
- Approval to use supernatant recirculation.

**C-104**

- **M-45-03G**, "Complete C-104 Sludge/Hard Heel, Confined Sluicing and Robotic Technologies, Waste Retrieval Cold Demonstration"  
Due: 06/30/04  
Status: **Completed** (11 months ahead of schedule); ORP letter 03-TPD-074, 08/13/03
- **M-45-03H**, "Complete C-104 Sludge/Hard Heel, Confined Sluicing and Robotic Technologies, Waste Retrieval Demonstration Design (all physical systems including LDMM provisions)"  
Due: 09/30/04  
Status: On schedule.
- **M-45-03I**, "Complete C-104 Sludge/Hard Heel, Confined Sluicing and Robotic Technologies, Waste Retrieval Demonstration Construction (all physical systems including LDMM provisions)"  
Due: 09/30/06  
Status: On accelerated schedule; forecast completion by 09/15/05.
- **M-45-06D**, "Submit a Certified (Framework) SST System Closure Plan and C-104 Waste Retrieval and Closure Demonstration Plan"  
Due: 06/30/07  
Status: On accelerated schedule; forecast completion by 03/15/06.
- **M-45-03F**, "Complete Full-Scale Sludge/Hard Heel, Confined Sluicing and Robotic Technologies, Waste Retrieval Demonstration a SST C-104"  
Due: 09/30/07  
Status: On accelerated schedule; forecast completion by 07/08/06.
- **M-45-14**, "Interim Completion of Tank C-104 SST Waste Retrieval and Closure Demonstration Project"  
Due: 06/30/08  
Status: On accelerated schedule; forecast completion by 07/08/06.

- **M-45-14-T01**, "Final Completion of Tank C-104 SST Retrieval and Closure Demonstration Project"  
Due: 06/30/09  
Status: On accelerated schedule

**Significant Accomplishments:**

- Supported C-Farm Acceleration Closure Project
- Continued development of cost, scope, schedule, and technical baselines for C-Farm acceleration.
- Completed detailed cost estimate for C-Farm acceleration for review and validation.

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

- Complete C-104 retrieval system design and release
- Prepare and approve Statement of Work for retrieval system construction

**Issues:**

- None

**S-105/S-106/S-103**

- **M-45-05-T17**, "Submit S-105, S-106, and S-103 Waste Retrieval and Closure Demonstration Functions and Requirements Document"  
Due: 04/30/05  
Status: On schedule
- **M-45-05E**, "Complete S-105, S-106, and S-103 Waste Retrieval and Closure Demonstration Project Design (including all physical systems and design/operating strategies for LDMM for each tank)"  
Due: 06/30/07  
Status: On schedule
- **M-45-05F**, "Complete S-105, S-106, and S-103 Waste Retrieval and Closure Demonstration Project Construction (including all physical systems and design/operating strategies for LDMM for each tank)"  
Due: 09/30/08  
Status: On schedule
- **M-45-06E**, "Submit a Certified (Framework) SST System Closure Plan Modification for Tanks S-105, S-106, and S-103 Closure Demonstration Plan"  
Due: 09/30/08  
Status: On schedule
- **M-45-05G-T01**, "Complete S-105, S-106, and S-103 Waste Retrieval"  
Due: 10/31/09  
Status: On schedule

- **M-45-16**, "Interim Completion of Tank S-105, S-106, and S-103 SST Waste Retrieval and Closure Demonstration Project"  
Due: 07/31/10  
Status: On schedule
- **M-45-16-T01**, "Final Completion of Tank S-105, S-106, and S-103 SST Retrieval and Closure Demonstration Project"  
Due: 07/31/11  
Status: On schedule

### **Significant Accomplishments**

- None. Activities are planned in out-years.

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

- Work on S-103 planned to start in FY 2004. Work on S-105 and S-106 planned to start in FY 2006, except for Functions and Requirements that will be addressed along with S-103 under M-45-05-T17.

### **Issues:**

- None

### **Non-TPA Milestone Tanks (forecast completion dates per IMES as of 05/01/04)**

#### **C-200s**

- Submit F&R Document to Ecology (for approval)  
Due: 12/23/03  
Status: **Completed**
- Submit Closure Plan to Ecology (for review)  
Due: 02/10/04  
Status: **Completed**. CH2M HILL certification of closure plan completed on 03/3/04 and document was submitted to ORP
- Complete Retrieval System Design  
Due: 02/12/04  
Status: **Completed**
- Complete Retrieval System Construction  
Due: 03/10/04  
Status: **Completed**
- Complete Retrieval Operations  
Due: 03/19/04  
Status: Forecast completion by 07/12/04.

- Complete Interim Closure  
Due: 12/20/05  
Status: On schedule

**Significant Accomplishments:**

- Completed the Test Results Report for the C-200 systems testing
- Completed affidavit preparation and review (19 of 20 completed)
- Outstanding affidavit associated with supply of breathing air equipment to support C-200 operations and maintenance activities. Forecast completion by 05/15/04.
- Completed the redline and incorporation of Ecology's comments on the C-200 Functions & Requirements document
- Continued with operator training and running drills. An additional evaluation to address operations using breathing air equipment will be completed once supplies are available. Forecast completion by 05/14/04.
- Awarded a design contract for tank preparation and Phase I tank fill for C-200 tanks
- Completed CH2M HILL certification for C-200 tanks closure plan and submitted to ORP
- Received Washington State Department of Health (WDOH) approval of the C-200 series Notice of Construction (NOC) revision

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

- Complete operational testing.
- Completed tank preparation and Phase I tank fill design
- Commence and complete retrieval operations for C-201, C-202, C-203, and C-204.

**Issues:**

- Availability of supplied air is on critical path to declaring readiness and commencing the readiness assessment. Estimated start date for Readiness Assessment is 05/24/04.

**C-103**

- Submit F&R Document to Ecology (for review)  
Due: 02/18/04  
Status: **Completed**
- Submit Closure Plan to Ecology (for review)  
Due: 10/15/04  
Status: On schedule
- Complete Retrieval System Design  
Due: 05/18/04  
Status: **Completed**

- Complete Retrieval System Construction  
Due: 05/25/04  
Status: Forecast completion by 1/31/05
- Complete Retrieval Operations  
Due: 12/23/04  
Status: Forecast completion by 10/31/05
- Complete Interim Closure  
Due: 07/26/05
- Status: Forecast completion by 05/31/06

**Significant Accomplishments:**

- Approved quality assurance inspection procedure and fabrication Statement of Work, Rev. 3
- Performed lifting bail assessment for Pits 03A and 03C
- Completed Work Release for Construction/Service Organization Form for lifting bail straightening and sluicer repair and testing
- Approved installation design for C-103 leak detection, monitoring, and mitigation
- Approved for release the master equipment, safety equipment, and spare parts lists
- Completed the Industrial Hygiene Monitoring Plan
- Released system design description for sluicing
- Granted Fluor Federal Group a Notice to Proceed, and approved the Notice of Intent for construction activities
- Removed the saltwell screen from C-103
- Completed factory acceptance testing of 3i sluicing equipment; received 3i sluicers, control consoles, and hydraulic power units; completed testing of sluicer nozzles
- Approved criticality safety evaluation report for operational acceptance checklist
- Approved the Operational Acceptance Checklists
- Completed final review of revised safety evaluation for High Resolution Resistivity leak detection and monitoring system
- Developed test plan
- Completed testing and inspections for pit an valve box connections
- Received multiple fabricated items (i.e., plates, nozzles, electrical, etc.)
- Requested waiver to new jumper specification

**Significant Planned Activities in the Next 6 Months:**

- Complete final design
- Complete retrieval system procurement
- Initiate retrieval system installation, startup, and readiness
- Submit closure plan to Ecology for review

**Issues:**

- Approval to use supernatant recirculation

**C-105**

- Submit F&R Document to Ecology (for review)  
Due: 02/9/04  
Status: **Completed**
  
- Submit Closure Plan to Ecology (for review)  
Due: 10/20/04  
Status: On schedule
  
- Complete Retrieval System Design  
Due: 03/15/04  
Status: Forecast completion by 05/30/04
  
- Complete Retrieval System Construction  
Due: 05/17/04  
Status: Forecast completion by 1/31/05
  
- Complete Retrieval Operations  
Due: 02/21/05  
Status: Forecast completion by 12/31/05
  
- Complete Interim Closure  
Due: 11/30/05  
Status: Forecast completion by 10/31/06

**Significant Accomplishments:**

- Approved quality assurance inspection procedure and fabrication Statement of Work, Rev. 3
- Performed lifting bail assessment for Pits 05A and 05C
- Approved installation design for C-105 leak detection, monitoring, and mitigation
- Completed final review of revised safety evaluation for High Resolution Resistivity leak detection and monitoring system
- Approved for release the master equipment, safety equipment, and spare parts lists
- Completed for release the Industrial Hygiene Monitoring Plan
- Released system design description for sluicing
- Granted Fluor Federal Group a Notice to Proceed, and approved the Notice of Intent for construction activities
- Completed factory acceptance testing of 3i sluicing equipment; received multiple fabricated items (i.e., plates, nozzles, electrical, etc.); completed testing of sluicer nozzles
- Approved criticality safety evaluation report for the Operational Acceptance Checklist
- Approved the Operational Acceptance Checklists

**Significant Planned Activities in the Next 6 Months:**

- Complete pre-equipment removal activities
- Complete final design
- Complete retrieval system procurement
- Initiate retrieval system installation, startup, and readiness
- Submit closure plan to Ecology for review

**Issues:**

- Approval to use supernatant recirculation

**U-200s**

- Submit F&R Document to Ecology (for review)  
Due: 02/24/04  
Status: Forecast for completion by 05/30/04
- Submit Closure Plan to Ecology (for review)  
Due: 10/15/04  
Status: On schedule
- Complete Retrieval System Design  
Due: 07/22/04  
Status: **Completed**
- Complete Retrieval System Construction  
Due: 07/7/04  
Status: Forecast for completion by 07/30/04
- Complete Retrieval Operations  
Due: 09/23/04  
Status: Forecast for completion by 10/28/04
- Complete Interim Closure I  
Due: 10/25/05  
Status: On schedule

**Significant Accomplishments:**

- Issued letter contract to Fluor Hanford for construction services for the U-SY transfer line
- Completed the final design for the new layout of the U-200 retrieval system
- Completed the fabrication of the SY-102 anti-siphon drop leg
- Received four in-tank articulated mast systems
- Received materials for the U-SY transfer line and commenced with installation
- Completed U-200 Best Basis Inventory/Vadose Zone Inventory Data Package

**Significant Planned Work for the Next 6 Months:**

- Complete retrieval system procurement
- Complete retrieval system installation, startup, and readiness
- Complete retrieval operations
- Submit F&R document to Ecology for review
- Submit closure plan to Ecology for review

**Issues:**

- U-200 construction schedule continuing to be negatively impacted due to schedule impacts incurred for the C-200 tanks

**B-200s**

- Submit F&R Document to Ecology (for review)  
Due: 03/18/04  
Status: Forecast completion by 05/30/04
- Submit Closure Plan to Ecology (for review)  
Due: 10/15/04  
Status: On schedule
- Complete Retrieval System Design  
Due: 09/14/04  
Status: Forecast completion by 05/30/04
- Complete Retrieval System Construction  
Due: 09/9/04  
Status: Forecast completion by 09/30/04
- Complete Retrieval Operations  
Due: 12/31/04  
Status: On schedule
- Complete Interim Closure  
Due: 02/16/06  
Status: On schedule

**Significant Accomplishments:**

- Issued the final design of the B-200 vacuum retrieval system for review
- Continued the fabrication of the B-200 vacuum retrieval system; estimated arrival at Hanford is 08/04/04.

**Significant Planned Work in the Next 6 Months:**

- Complete design and engineering activities
- Complete vacuum retrieval system construction and declaration of readiness
- Submit F&R document to Ecology for review
- Submit closure plan to Ecology for review

**Issues:**

- None

**T-200s**

- Submit F&R Document to Ecology (for review)  
Due: 08/23/04  
Status: On schedule
- Submit Closure Plan to Ecology (for review)  
Due: 09/15/05  
Status: On schedule
- Complete Retrieval System Design  
Due: 01/28/05  
Status: On schedule
- Complete Retrieval System Construction  
Due: 06/10/05  
Status: On schedule. Declaration of readiness by 08/23/05.
- Complete Retrieval Operations  
Due: 01/14/06  
Status: On schedule
- Complete Interim Closure  
Due: 03/15/07  
Status: On schedule

**Significant Accomplishments:**

- Continued fabrication of the T-200 vacuum retrieval system; forecast completion by 08/30/04.

**Significant Planned Work in the Next 6 Months:**

- Complete fabrication of the T-200 vacuum retrieval system
- Submit F&R document to Ecology for review

**Issues:**

- None

**IV. SST Retrieval from Remaining Tanks**

- **M-45-05-T05, "Initiate Tank Retrieval from 5 Additional SSTs"**  
Due: 09/30/07  
Status: On schedule

- **M-45-05-T06**, "Initiate Tank Retrieval from Additional SSTs" by 09/30/08  
Due: 09/30/08  
Status: On schedule
- **M-45-05-T07**, "Initiate Tank Retrieval from 7 Additional SSTs" by 09/30/09  
Due: 09/30/09  
Status: On schedule
- **M-45-05-T08**, "Initiate Tank Retrieval from 8 Additional SSTs" by 09/30/10  
Due: 09/30/10  
Status: On schedule
- **M-45-05-T09**, "Initiate Tank Retrieval from 10 Additional SSTs" by 09/30/2011  
Due: 09/30/2011  
Status: On schedule
- **M-45-05-T10**, "Initiate Tank Retrieval from 12 Additional SSTs" by 09/30/2012  
Due: 09/30/2012  
Status: On schedule
- **M-45-05-T11**, "Initiate Tank Retrieval from 14 Additional SSTs" by 09/30/2013  
Due: 09/30/2013  
Status: On schedule
- **M-45-05-T12**, "Initiate Tank Retrieval from 17 Additional SSTs" by 09/30/2014  
Due: 09/30/2014  
Status: On schedule
- **M-45-05-T13**, "Initiate Tank Retrieval from 20 Additional SSTs" by 09/30/2015  
Due: 09/30/2015  
Status: On schedule
- **M-45-05-T14**, "Initiate Tank Retrieval from 20 Additional SSTs" by 09/30/2016  
Due: 09/30/2016  
Status: On schedule
- **M-45-05-T15**, "Initiate Tank Retrieval from 20 Additional SSTs" by 09/30/2017  
Due: 09/30/2017  
Status: On schedule
- **M-45-05**, "Retrieve Waste from All Remaining SSTs" by 09/30/2018  
Due: 09/30/2018  
Status: On schedule

## In Tank Characterization and Summary

As of May 17, 2004

### I. Significant Accomplishments:

- Sampling Activities:

Program	Tank Sampled			
	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter
Cross-Site Transfer/Compatibility		AN-106 (G)*		
Chemistry Control	AY-102 (C)	AZ-102 (C) AN-106 (G)*	AW-105 (G)	
SST Retrieval/Closure	SY-101 (G) C-106 (G) SY-102 (G) C-202 (G) C-201(G)	C-106(G) SY-102(G)		
Evaporator Operations	AN-101 (G) AW-102 (G)	AP-107 (G)	AP-101 (G) AP-108 (G)	
Supplemental Technology	S -112 (G)	S-112 (G)		
Industrial Hygiene			C-204 (V) C-203 (V)	

\* Same sampling event for multiple program.

### BBI Updates:

- Completed 32 BBI updates during the 1<sup>st</sup> Quarter of FY 2004.
- Completed 20 BBI updates during the 2<sup>nd</sup> Quarter of FY 2004.

### DQO:

- Revision on Component Closure DQO for Tank 241-C-106 has been completed and is currently under ORP Review.
- Evaporator DQO, revision 4 is in progress and is expected to be completed in June 2004.
- First Bulk Vitrification DQO, revision 0 meeting is planned for May and the completion date is targeted for August 2004.

### II. Planned Action Within the Next Six Months:

- 25 BBI updates are planned for the 3<sup>rd</sup> Quarter of FY04.

### III. Issues:

- None