Agenda

Office of River Protection Tri-Party Agreement Quarterly Milestone Review

May 22, 2001

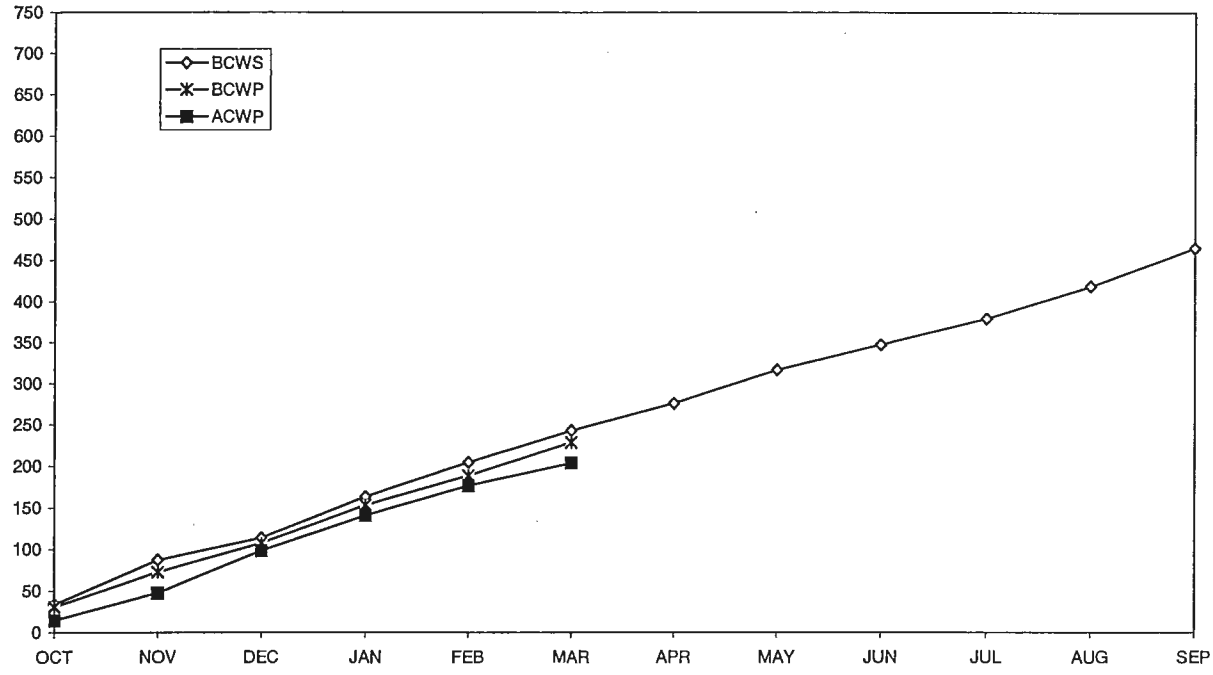
712 Swift Blvd., Suite 5, EPA Conference Room

9:00 a.m. – 12:00 p.m.

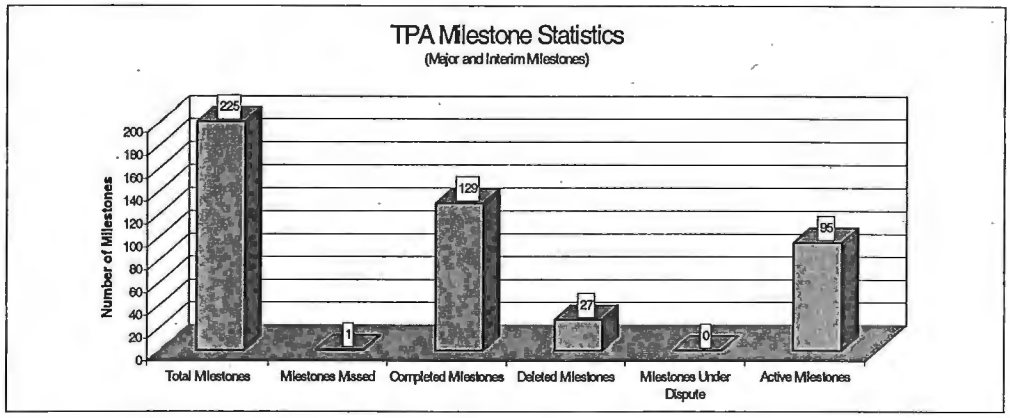
Topic	Leads	Time
FY 2000 ORP Tri-Party Agreement Cost & Schedule Performance	Mary Beth Burandt/Jim Rasmussen/Nancy Uziemblo/Melinda Brown	9:00
• ORP Critical Path Related to Sections 4.1 and 11.8	Mary Beth Burandt/Jim Rasmussen/Pete Furlong	9:10
• Interim Stabilization (Consent Decree)	Dana Bryson/Deb Williams/Kevin Dewitt	9:25
• M-46-00, Double-Shell Tank Space Evaluation	Dana Bryson/Victor Callahan/Melinda Brown	9:40
• DST Integrity Assessment Program	Dana Bryson/Victor Callahan/Melinda Brown	9:50
• M-44-00, Tank Waste Characterization	Dana Bryson/Wen-Shou Liou/Debra Singleton	10:00
• M-40-00, Safety Issue Resolution	Dennis Irby/Kevin Dewitt	10:10
• M-45-00, Single-Shell Tank Closure	Bob Lober/Dick Heggen	10:15
• M-45-50, 60 Single-Shell Tank Corrective Action	Rob Yasek/Joe Caggiano	10:35
• M-47, Tank Waste Treatment, Storage and Disposal Facilities	Joe Cruz/Dick Heggen	10:50
• M-43-00, Tank Farm Upgrades	Bobby Williams/Rabindra Biyani	11:00
• M-62, Complete Pretreatment Processing and Vitrification of Tank Wastes	Mark Ramsay/Nancy Uziemblo	11:10
• M-90-00, Complete Acquisition of Facilities for Interim Storage of IHLW and Storage/Disposal of ILAW	Phil LaMont/Rabindra Biyani	11:30
• Review of new commitments and actions	Mary Beth Burandt/Jim Rasmussen/ Nancy Uziemblo/Melinda Brown	11:45

RIVER PROTECTION PROJECT
FY 2001 PERFORMANCE MEASUREMENTS - ALL FUND TYPES
(Including All Direct Funded Activities)

Cumulative to Date Status (Dollars in Millions)



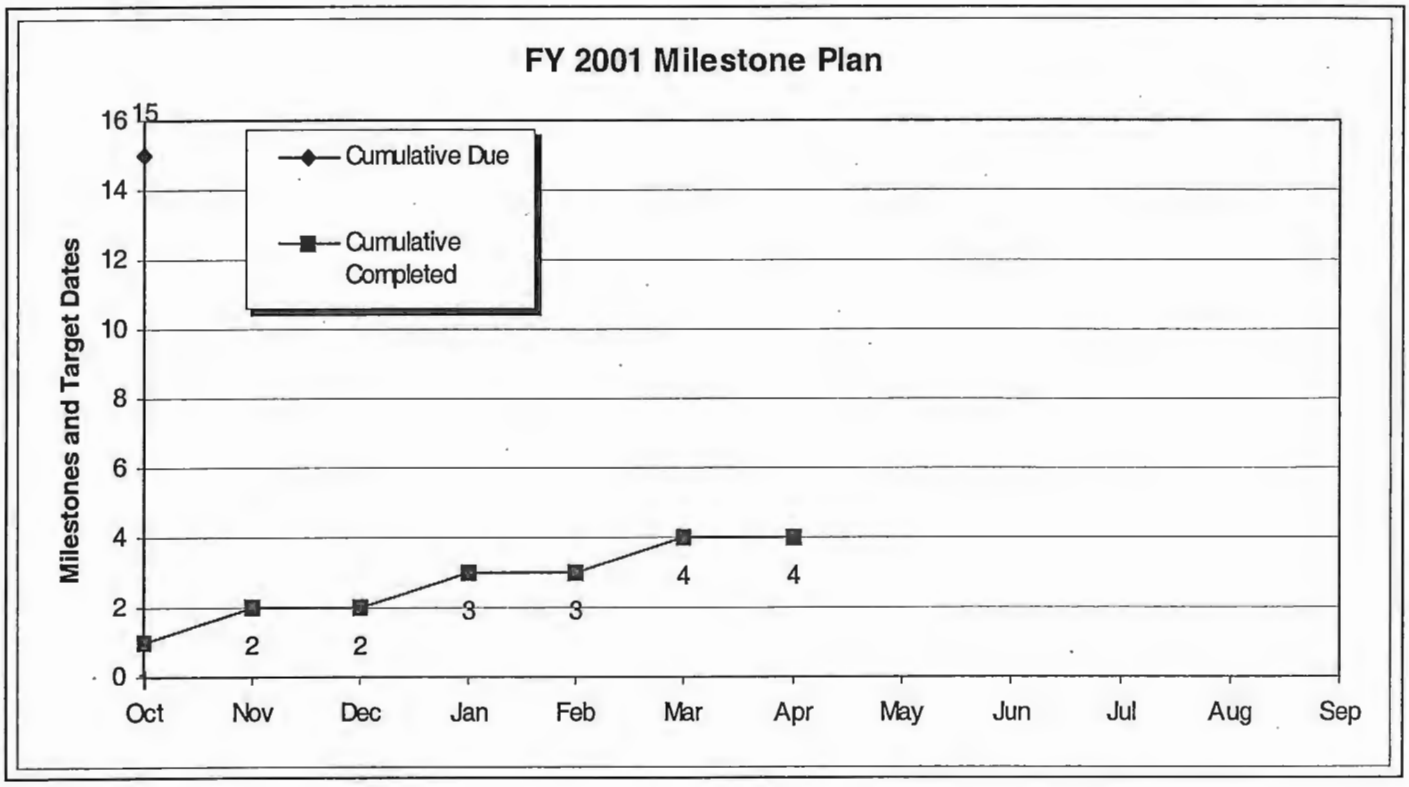
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
BCWS	33.8	87.3	113.7	163.2	204.7	243.3	276.4	317.1	347.8	379.4	418.7	464.6
BCWP	30.7	72.6	107.6	153.1	188.6	228.8						
ACWP	14.8	47.5	98.4	140.7	176.7	204.2						
SV	(3.1)	(14.7)	(6.1)	(10.1)	(16.1)	(14.5)						
CV	15.9	25.1	9.2	12.4	11.9	24.6						
SV%	(9.2%)	(16.8%)	(5.3%)	(6.2%)	(7.9%)	(6.0%)						
CV%	51.9%	34.5%	8.5%	8.1%	6.3%	10.8%						

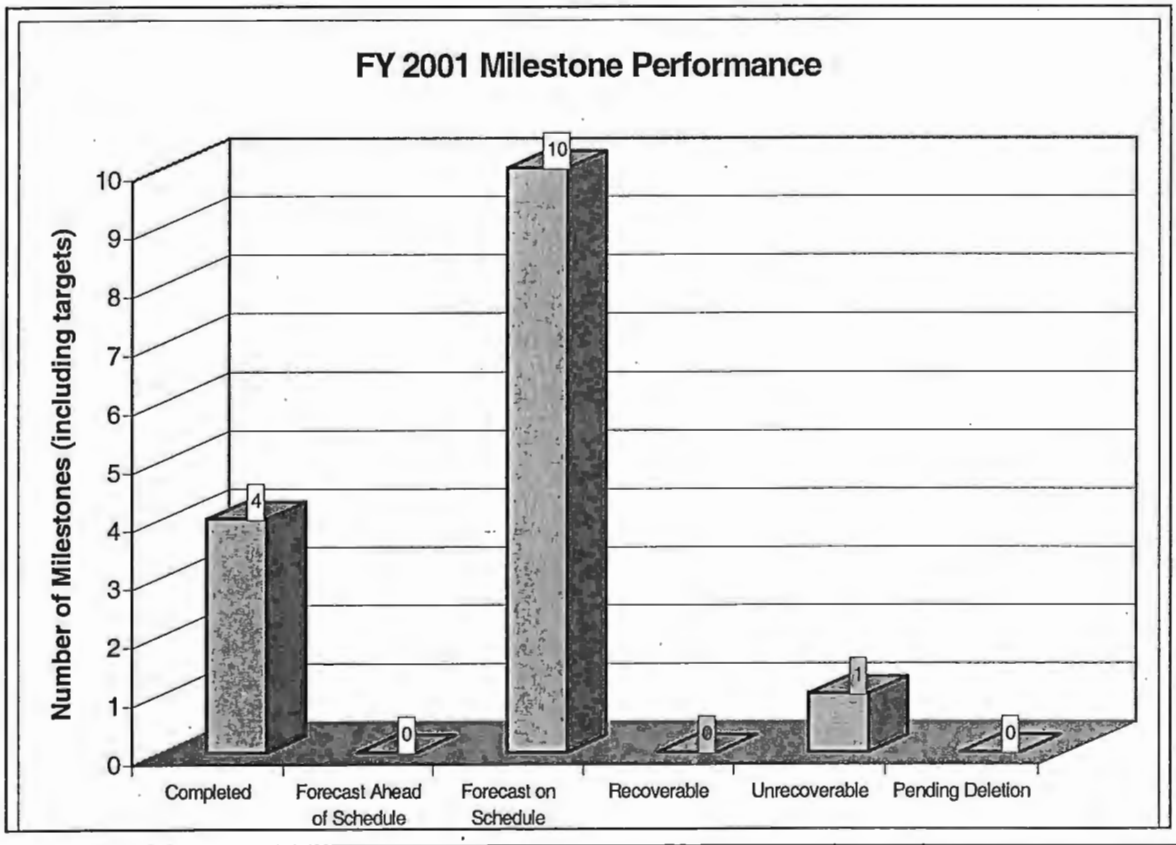


	Milestone Completion Date	Total Milestones as of 2/27/01	Milestones Completed as of 2/27/01	Milestones Deleted After 10/1/98	Milestones Under Dispute as of 2/27/01	Milestones Active as of 2/27/01	Milestones Missed as of 2/27/01
M-20-00 Submit Part B Permit Application on Closure/Post Closure Plans for all RCRA TSD Units	2/28/2004	4	1	1	0	3	0
M-40-00 Mitigate/Resolve Tank Safety Issues for High Priority Watchlist Tanks	9/30/2001	19	18	1	0	1	0
M-41-00 Complete Single Shell Tank Interim Stabilization	9/30/2000	12	12	7	0	0	0
M-43-00 Complete Tank Farm Upgrades	6/30/2005	20	17	0	0	3	0
M-44-00A Double and Single Shell Tank Characterization	9/30/2002	34	26	0	0	8	0
M-45-00** Complete Closure of all Single Shell Tank Farms	9/30/2024	63	24	11	0	39	1
M-46-00 Double Shell Tank Space Evaluation	9/30/2003	26	15	0	0	11	0
M-50-00 Complete Pretreatment Processing of Hanford Tank Wastes	9/30/2024	3	2	1	0	1	0
M-51-00 Complete Vitrification of Hanford High Level Tank Waste	12/31/2028	3	2	0	0	1	0
M-60-00 (primary path) Complete Pretreatment and Immobilization of Hanford Low Activity Tank Waste	12/31/2024	(12)*	8	0	0	(4)*	0
M-61-00* (alternate path) Complete Pretreatment and Immobilization of Hanford Low Activity Tank Waste	12/31/2028	1	0	3	0	1	0
M-90-00 Interim Storage and Disposal of LAW and Interim Storage of HLW	TBD	6	2	2	0	4	0
M-62-00 Complete Pretreatment Processing and Vitrification of Tank Wastes	12/31/2018	13	2	1	0	10	0
M-47-00 Complete All Work for Phase 1 Operations	2/28/2018	9	0	0	0	9	0
Total		225	129	27	0	95	1

*DOE abandoned the primary path per letter dated June 18, 1998. M-60-00 milestones were automatically deleted from the Tri-Party Agreement, and M-61-00 milestones were activated under the alternate path (Ecology and EPA stated their disagreement with this footnote at the July 28, 1998 IAMIT meeting).

** TPA change request M-45-98-03 was approved on March 13, 2001. The statistics table has been updated to reflect the addition of 11 interim milestones (6 are complete). Nine target milestones were also added per this change request.


FY 2001 Milestone Plan
Milestones and Target Dates
Cumulative Due
Cumulative Completed
16
14
12
10
8
6
4
2
0
15
2
2
3
3
4
4
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep


FY 2001 Milestone Performance
Number of Milestones (including targets)
10
9
8
7
6
5
4
3
2
1
0
4
0
10
0
1
0
Completed
Forecast Ahead of Schedule
Forecast on Schedule
Recoverable
Unrecoverable
Pending Deletion

Fiscal Year 2001 Tri-Party Agreement Milestone Status

Milestone	Description	Due Date	Completed	Forecast		Recover-able	Unrecover-able	Pending Deletion	Deleted
				Ahead of Schedule	On Schedule				
M-46-01G	Concurrence of Additional Tank Acquisition	11/30/00	X						
P-45-54	Submit SST WMA Phase 1 RFI/CMS for WMA T and WMA TX-TY	3/31/00	X						
M-62-01	Submit Semi-Annual Compliance Report	1/31/01	X						
M-62-07	Establish Construction "Progress" Milestone Dates	TBD			X				
M-43-14	Start Construction Upgrades for Third Tank Farm	3/31/01	X						
M-26-01K	Submit Annual Hanford Land Disposal Restrictions Report	5/30/01			X				
M-44-13E	Submit Draft WIRD to Ecology for FY2002	06/30/01			X				
M-62-01	Submit Semi-Annual Compliance Report	7/31/01			X				
M-62-06	Start of Construction – Phase I Treatment Complex	7/31/01					X		
M-44-14E	Submit Final WIRD to Ecology	8/31/01			X				
M-40-00	Mitigate/Resolve Tank Safety Issues	9/30/01			X				
M-44-15E	Complete Characterization Deliverables	9/30/01			X				
M-44-16E	Complete Input of Characterization Information into Database	9/30/01			X				
M-46-00H	Double-Shell Tank Space Evaluation	9/30/01			X				
M-45-02	Start Annual Update to Retrieval Sequence Document	9/30/01			X				
TOTAL			4	0	10	0	1	0	0

Change Request M-45-98-03 SST Corrective Action Groundwater/Vadose Zone

TPA change requests M-45-98-03 and M-45-00-02 were approved on March 13, 2001.

Interim Stabilization Consent Decree

Near-Term Deliverables:

- Start Interim Stabilization of 2 SSTs - 241-A-101, 241-AX-101 (D-001-06)

  Due: 10/30/00

  Status: Complete

- Develop and Identify Path Forward to Remove Organic Layer from C-103 (D-001-07))

  Due: 12/30/00

  Status: Complete

- Start Interim Stabilization of 4 SSTs - 241-SX-105, 241-SX-103, 241-SX-101, 241-U-106 (D-001-08)

  Due: 3/15/01

  Status: Complete

- Start Interim Stabilization of 2 SSTs – 241-BY-106, 241-BY-105 (D-001-09)

  Due: 7/15/01

  Status: Equipment installation work is in progress. Startup of both BY-106 and BY-105 is expected in June.

- Reduce Total Organic Complexant Pumpable Liquids to 5% of Total Volume from SSTs (D-001-10V)

  Due: 9/30/01

  Status: On schedule if pump operating efficiency remains stable.

- Start Interim Stabilization of 4 SSTs - 241-U-108, 241-U-107, 241-S-111, 241-SX-102 (D-001-11)

  Due: 12/30/01

  Status: On schedule

- Reduce Total Liquids to 18% of Total Volume from SSTs (D-001-12V)

  Due: 9/30/02

  Status: On schedule

- Start Interim Stabilization of 5 SSTs - 241-U-111, 241-S-109, 241-S-112, 241-S-101, 241-S-107 (D-001-13)

  Due: 11/30/02

  Status: On schedule

- Reduce Total Liquids to 2% of Total Volume from SSTs (D-001-00V)

  Due: 9/30/03

  Status: On schedule

- Complete Interim Stabilization of all 29 SSTs (D-001-00)

  Due: 9/30/04

  Status: On schedule

Status:

- Pumping is ongoing for tanks SX-103, U-102, and U-109.
- Pumping will resume, after maintenance, for tanks SX-101 (plugged pump leg) and S-102 (failed pump/plugged pump leg).
- Tanks SX-105 and S-109 are being evaluated for stabilization criteria.
- Tank U-105 met stabilization criteria under the provisions of major equipment failure. ORP approval letter is being prepared.
- 1.24 million gallons of liquid waste have been removed.
- 374 thousand gallons of organic complexant liquid waste have been removed.

Issues/Recovery:

- Milestone D-001-10V, Reduce Total Organic Complexant Pumpable Liquids to 5% of Total Volume

  Due: September 30, 2001

  Status: The interstitial liquid drain rate has been slower than originally predicted, resulting in less liquid removed. Because of the limited flow into the saltwell screen, the volume of flush water and dilution water required to prevent screen and transfer line plugging exceeds the volume of waste removed.

  Recovery: Continue pumping.

- Resumption of pumping tanks AX-101 and A-101

  Status: With the transfer line SN-247 failing the annual hydro test on May 3, 2001, an alternate receiving tank must be identified or an over-ground transfer line installed. Resolution of this new issue may delay restart of pumping these two tanks by several months.

Planned Actions:

- Complete the stabilization evaluation for tanks S-109 and SX-105.
- Re-initiate pumping of AX-101 and A-101.
- Initiate pumping of BY-106 and BY-105.
- Replace pump and pump legs for tanks S-102 and SX-101.
- Initiate pumping of U-107 and U-108.

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

I. Deliverables:

- M-46-01G, Concurrence of Additional Tank Acquisition
  Due: 11/30/00
  Status: Complete
- M-46-00H, Double-Shell Tank Space Evaluation
  Due: 9/30/01
  Status: On schedule
- M-46-01H, Concurrence of Additional Tank Acquisition
  Due: 11/30/01
  Status: On schedule
- M-46-00I, Double-Shell Tank Space Evaluation
  Due: 9/30/02
  Status: On schedule
- M-46-01I, Concurrence of Additional Tank Acquisition
  Due: 11/30/02
  Status: On schedule
- M-46-00J, Double-Shell Tank Space Evaluation
  Due: 9/30/03
  Status: On schedule
- M-46-01J, Concurrence of Additional Tank Acquisition
  Due: 11/30/03
  Status: On schedule
- M-46-00K, Double-Shell Tank Space Evaluation
  Due: 9/30/04
  Status: On schedule
- M-46-01K, Concurrence of Additional Tank Acquisition
  Due: 11/30/04
  Status: On schedule

- M-46-00L, Double-Shell Tank Space Evaluation

  Due: 9/30/05

  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: 9/30/06

  Status: On schedule

- M-46-01M, Concurrence of Additional Tank Acquisition

  Due: 11/30/06

  Status: On schedule

Work schedule/Baseline management – The correlation between individual TPA milestones and the RPP baseline will be addressed upon completion of the fully integrated RPP baseline.

II. Significant Accomplishments:

- Additional Case Studies 2a, 2b, and 3 were completed and delivered to Ecology on March 15, 2001. Ecology was briefed on assumptions and results on March 15, 2001.

III. Significant Planned Actions in the Next Six Months:

- The OWVP/SST Sequence document deliverables are being integrated and the current approach is to submit the same document to meet both TPA milestones (M-45 and M-46). The documents will use the same modeling basis and should include the same kind of information presented in prior deliverables. ORP/CHG staff from operations and retrieval have been working together to ensure the approach will be acceptable. ORP/CHG discussed the SST retrieval sequence strategy with Ecology in May.

  ORP/CHG are in the process of reviewing and revising the key planning assumptions to ensure they are consistent with the contract case and the OWVP/SST Sequence modeling bases.

IV. Issues:

- TBD

DST Integrity Assessment Program

I. Deliverables:

- Update on Ultrasonic Testing Equipment Development Report
  Due: 3/31/01
  Status: Complete
- Results of Ultrasonic Testing and Static Leak Test of Miscellaneous Waste Tanks
  Due: 7/18/01
  Status: On schedule
- Update on Ultrasonic Testing Equipment Development Report
  Due: 9/30/01
  Status: On schedule
- Submit results of 4 DSTs not previously examined
  Due: 9/30/01
  Status: On schedule
- Submit results of 4 DSTs not previously examined
  Due: 9/30/02
  Status: On schedule
- Submit results of 4 DSTs not previously examined
  Due: 9/30/03
  Status: On schedule
- Submit results of 4 DSTs not previously examined
  Due: 9/30/04
  Status: On schedule

Work schedule/Baseline management – The correlation between individual TPA milestones and the RPP baseline will be addressed upon completion of the fully integrated RPP baseline.

II. Significant Accomplishments:

- Completed UT vertical scan of AY-101 annulus from riser 88. Plate #5 (immediately above lower knuckle) could not be examined due to concrete splatter on surface. A horizontal scan at the prior liquid/air interface is underway.

- Completed evaluation of proposals by prospective bidders for AY-101 NDE/Utility arm. Evaluating another alternative for utility arm reach with potential cost savings and quicker results.

III. Significant Planned Actions in the Next Six Months:

- Complete milestones as listed above.

IV. Issues:

- **AY-101:**

  Unable to deploy the Remote Ultrasonic Testing Instrument because of an annulus ventilation air pipe located directly below the 24 inch risers. Location of air pipes are unique to the AY tanks. Ecology was briefed about this issue and recommended completing UT on AN-102 tank bottom.

  Stain areas inside AY-101 primary tank were reported in a recent Occurrence Report. ORP and CHG are trying to determine if the stains indicate a water leak through the inner shell into the tank through small holes, or if the stains are the result of construction or internal condensation in the tank. ORP and CHG will need to evaluate and plan a course of action in order to resolve this issue. The current level restriction of 80 " is still in effect. Ecology has been briefed on this problem.

- **AZ-151:**

  An initial attempt to collect UT of tank interior was unsuccessful due to heavy corrosion build-up. Attempts to clean the wall surface sufficient for providing good UT data resolution were not successful. A static leak check performed last year indicated no problem with the tank. AZ-151 is a condensate catch tank and is required to be tested per the Administrative Order 00NWPKW-1250/1251.

Milestone M-44-00A, Complete delivery of information requirements as identified in the annually submitted Waste Information Requirements Document (WIRD)

I. Deliverables:

- M-44-13E, Submit draft TSB-WIRD to Ecology for FY 2002

  Due: 6/30/01

  Status: On schedule

- M-44-14E, Submit final TSB-WIRD for FY 2002 to Ecology

  Due: 8/31/01

  Status: On schedule

- M-44-15E, Complete Characterization Deliverables Consistent with TSB-WIRD Developed for FY 2001

  Due: 9/30/01

  Status: On schedule

- M-44-16E, Complete Input of Characterization Information for High Level Waste (HLW) Tanks for which Sampling and Analysis was Completed Per the FY 2001 WIRD, into an Electronic Database

  Due: 9/30/01

  Status: On schedule

- M-44-15F, Issue Characterization Deliverables Consistent with TSB-WIRD Developed for FY 2002

  Due: 9/30/02

  Status: On schedule

- M-44-16F, Complete Input of Characterization Information for HLW Tanks for which Sampling and Analysis were Completed per TSB-WIRD

  Due: 9/30/02

  Status: On schedule

Work schedule/Baseline management – The correlation between individual TPA milestones and the RPP baseline will be addressed upon completion of the fully integrated RPP baseline.

II. Significant Accomplishments:

- Completed two grab samples; one from tank 241- AY-102 for the Caustic Mitigation Program and one from Tank 241-AW-106 for the Evaporator Campaign.
- Completed three vapor samples; one vapor sample each from tanks 241-AP-102, 241-AN-101, and 241-AP-106.
- Sampling status as of May 8, 2001:

	Tank Scheduled/Completed	Sample Scheduled/Completed	MYWP FY 01 Sampling Baseline
Core	4/3	8/6	10
Grab	8/7	9.8/8.6	14
Vapor	5/4	5/4	6

- Completed two Tank Characterization Reports.
- Completed the Second Quarter TSB-WIRD Status Report and submitted it to Ecology on April 17, 2001.

III. Significant Planned Actions in the Next Six Months:

- Complete TPA Milestone M-44-13E by 6/30/01.
- Issue the Third Quarter TSB-WIRD Status Report by July 31/01.
- Complete TPA Milestone M-44-14E by 8/31/01.
- Complete TPA Milestone M-44-15E and M-44-16E by 9/30/01.
- Issue the Forth Quarter TSB-WIRD Status Report by 10/31/01.

IV. Issues:

- Extension of M-44 milestones beyond the current completion date of September 30, 2002. DOE has requested that negotiation of M-44 milestones be conducted later in the fiscal year.

Milestone M-40-00, Mitigate/Resolve Tank Safety Issues for High Priority Watchlist Tanks

I. Deliverables:

- M-40-00, Mitigate/Resolve Tank Safety Issues for High Priority Watchlist Tanks

  Due: 9/30/01

  Status: On schedule

Work schedule/Baseline management – The correlation between individual TPA milestones and the RPP baseline will be addressed upon completion of the fully integrated RPP baseline.

II. Significant Accomplishments:

- Ecology and others commented on the Flammable Gas Safety Issue closure documentation. The document is being revised accordingly.

III. Significant Planned Actions in the Next Six Months:

- Complete the technical review of the Flammable Gas Safety Issue closure documentation, submit to DOE HQ with a request to resolve the safety issue and remove remaining tanks from the Watchlist.

IV. Issues:

- There are no issues to report at this time.

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

I. Near-Term Deliverables:

- **M-45-00B**, "Complete Near-Term SST Waste Retrieval Activities"

  Due: 9/30/2006

  Status: On schedule with respective supporting milestones as noted below.

- **M-45-02**, "Submit Annual Updates to SST Retrieval Sequence Document"

  Due: 9/30/01 and annually thereafter

  Status: On schedule. The OWVP/SST Sequence document deliverables are being integrated and the current approach is to submit the same document to meet both TPA milestones (M-45 and M-46). The documents will use the same modeling basis and should include the same kind of information presented in prior deliverables. ORP/CHG staff from operations and retrieval have been working together to ensure the approach will be acceptable. ORP/CHG discussed the SST retrieval sequence strategy with Ecology 4/30/01.

- **M-45-03-T03**, "Submit S-112 Saltcake Waste Retrieval Technology Demonstration Functions and Requirements Document"

  Due: 12/30/01

  Status: On schedule. F&R's prepared for internal CHG review. F&R's due to ORP by 11/30/01. Draft F&R will be available to Ecology for review July 25, 2001. would like comments back in 45 days.

- **M-45-03-T04**, "Submit C-104 Sludge/Hard Heel, Confined Sluicing and Robotic Technologies, Waste Retrieval Demonstration Functions and Requirements Document"

  Due: 12/31/01

  Status: On schedule. Prepared "lessons learned" data; revised RPE curves; defined LDMM final F&R's; provided Ecology with annotated outline; prepared 50% draft F&R's and reviewed with ORP and Ecology; briefed Ecology on F&R's progress on 3/23/01; and prepared 90% draft F&R document for internal review. Obtained Critical Decision Zero (CD-0) "Approval of Mission Need." Received proposals from LATA and Foster Wheeler for in-tank crawler system definition and conducted technical evaluation of proposals. Completed Preliminary Conceptual Design Review for the project. The Mobile Color Camera System for in-tank video inspection was shipped from the vendor (received on April 2, 2001). A draft F&R will be sent to Ecology for review end of May, with a joint working group planned for comment resolution prior to final submission.

- **M-45-03D**, "Complete S-112 Saltcake Waste Retrieval Technology Demonstration Design" (all physical systems including LDMM provisions)

  Due: 5/31/03

  Status: On schedule. "Proof of concept" testing of saltcake dissolution sprinkler design is imminent in tank U-107 in conjunction with interim stabilization saltwell pumping operations. The Preliminary Engineering Report was issued on March 21, 2001. Work continues on

environmental permitting, retrieval performance evaluations (RPE's), S-Farm assessments and walk-downs. Sampling of S-112 tank wastes is imminent. Integrating with Tank Focus Area in support of retrieval technology development and deployment. Interfacing with ongoing LDMM technology demonstrations.

- **M-45-00C**, "Complete Renegotiation of Second Phase SST Waste Retrieval Activities"

  Due: 2/28/2004

  Status: On schedule. M45-12 tank space options report integral component to supporting negotiations.

- **M-45-03G**, "Complete C-104 Sludge/Hard Heel, Confined Sluicing and Robotic technologies, Waste Retrieval Cold Demonstration"

  Due: 6/30/2004

  Status: On schedule. Bids are currently being evaluated. Down-selection decision within 1 month.

- **M-45-03E**, "Complete S-112 Saltcake Waste Retrieval Technology Demonstration Construction"

  Due: 9/30/2004

  Status: On schedule.

- **M-45-03H**, "Complete C-104 Sludge/Hard Heel, Confined Sluicing and Robotic Technologies, Waste Retrieval Demonstration Design"

  Due: 9/30/2004

  Status: On schedule.

- **M-45-03C**, "Complete Full-Scale Saltcake Waste Retrieval Technology Demonstration at SST S-112"

  Due: 9/30/2005

  Status: On schedule

- **M-45-05E**, "Complete Second Tank Initial Retrieval Project Design"

  Due: 6/30/2006

  Status: On schedule

- **M-45-05A**, "Complete Initial Waste Retrieval from SST S-102"

  Due: 9/30/2006

  Status: On schedule

- **M-45-03I**, "Complete C-104 Sludge/Hard Heel, Confined Sluicing and Robotic Technologies, Waste Retrieval Demonstration Construction"

  Due: 9/30/2006

  Status: On schedule.

- **M-45-05-T16**, "Submit S-102 Initial Waste Retrieval Functions and Requirements Document"

  Due: 10/30/02

  Status: On schedule. LDMM design concepts have been identified; LDMM/RPE interfaces have been established; LDMM strategy has been addressed; continued preliminary scoping level RPE; and issued final decision analysis letter report.

- **M-45-05B**, "Complete S-102 Initial Retrieval Project Design (all physical systems including LDMM provisions)

  Due: 3/31/04

  Status: On schedule. Prepared, reviewed, and issued draft retrieval objectives, and permitting plan; evaluated existing tank data; issued sampling needs report; and continued tank farm assessment and walk down. AEAT is proceeding with cold testing of power fluidics mixing and pumping system; procurement of equipment and materials is underway. Efforts are underway to place a contract with Sandia National Laboratories to support demonstration of the Russian Pulsating Mixing and Pumping system. It is expected that a funds transfer will occur in the May financial plan.

- **M-45-05C**, "Complete S-102 Initial Waste Retrieval Project Construction"

  Due: 11/30/2005

  Status: On schedule

- **M-45-05D**, "Establish Completion Date for the Second Tank, Initial Waste Retrieval"

  Due: 12/31/02

  Status: On schedule. Selection will be based on SST Retrieval Sequence Document defined by M-45-02 and its milestones for annual updates.

- **M-45-05F**, "Complete Second Tank Initial Waste Retrieval Project Construction"

  Due: TBD (to be no later than 12/31/02)

  Status: On schedule. Date selection will be based on SST Retrieval Sequence Document defined by M-45-02, as part of HTWOS.

- **M-45-05-T17**, " Submit Second Tank Initial Waste Retrieval Functions and Requirements Document"

  Due: 4/30/2004

  Status: On schedule. Selection will be based on SST Retrieval Sequence Document defined by M-45-02 and its milestones for annual updates.

- **M-45-06-T05**, "Submit Tank Farm Closure/Post-Closure Work Plan Update"

  Due: 6/30/02

  Status: On schedule. Draft issued for internal review on March 30, 2001. Early comments provided by ORP will be recognized in the March 30, 2001 draft and incorporated as part of the internal comment disposition process in preparation for submittal of the document to ORP for review by May 30, 2001.

- **M-45-06-T06**, "Submit Tank Farm Closure/Post Closure Work Plan Update"

  Due: 6/30/2004

  Status: On schedule.

- **M-45-06-T07**, "Submit Tank Farm Closure/Post Closure Work Plan Update

  Due: 6/30/2006 (and every two years thereafter)

  Status: On schedule.

- **M-45-12-T01**, "Tank Space Options Report"

  Due: 2/28/02

  Status: Complete. RPP-7702, "Tank Space Options Report," issued in April 2001.

  A briefing with Ecology was held on 5/14/01 at weekly SST retrieval Ecology/CHG/ORP meeting. A briefing to senior ORP management will be held pending availability. Document will be supplied to Ecology following internal briefing.

ecy Received MAY 22, 01

Out year (Post 2006) M-45 milestones:

- M-45-00, "Complete Closure of all SST Farms" by 9/30/2024
- M-45-03F, "Complete Full-Scale Sludge/Hard Heel, Confined Sluicing and Robotic Technologies, Waste Retrieval Demonstration a SST C-104" by TBD (to be established during M-45-00C negotiations).
- M-45-05, "Retrieve Waste from All Remaining SSTs" by 9/30/2018
- M-45-05-T05, "Initiate Tank Retrieval from 5 Additional SSTs" by 9/30/2007
- M-45-05-T06, "Initiate Tank Retrieval from 5 Additional SSTs" by 9/30/2008
- M-45-05-T07, "Initiate Tank Retrieval from 7 Additional SSTs" by 9/30/2009
- M-45-05-T08, "Initiate Tank Retrieval from 8 Additional SSTs" by 9/30/2010
- M-45-00D, "Complete Renegotiation of the Remainder of the SST Waste Retrieval and Closure Program" by 6/30/2011
- M-45-05-T09, "Initiate Tank Retrieval from 10 Additional SSTs" by 9/30/2011
- M-45-05-T10, "Initiate Tank Retrieval from 12 Additional SSTs" by 9/30/2012
- M-45-05-T11, "Initiate Tank Retrieval from 14 Additional SSTs" by 9/30/2013
- M-45-05-T12, "Initiate Tank Retrieval from 17 Additional SSTs" by 9/30/2014
- M-45-05-T13, "Initiate Tank Retrieval from 20 Additional SSTs" by 9/30/2015
- M-45-05-T14, "Initiate Tank Retrieval from 20 Additional SSTs" by 9/30/2016
- M-45-05-T15, "Initiate Tank Retrieval from 20 Additional SSTs" by 9/30/2017
- M-45-06, "Complete Closure of all SST Farms in Accordance with Approved Closure/Post Closure Plans" by 9/30/2024

- M-45-06-T03, "Initiate Closure Actions on an Operable Unit or Tank Farm Basis" by 3/31/2012
- M-45-06-T04, "Complete Closure Actions on one Operable Unit or Tank Farm" by 3/31/2014

Work schedule/Baseline management – The correlation between individual TPA milestones and the RPP baseline will be addressed upon completion of the fully integrated RPP baseline.

II. Significant Accomplishments:

- Completed preliminary HTWOS Model runs for "Balance of Mission" planning and presented the results to Ecology and ORP on 4/30/01.
- Issued Data Quality Objectives for S-112 sampling in support of saltcake dissolution technology demonstration.
- Issued Data Quality Objective for "Retrieval Performance Evaluation" (RPE) methodology.
- Completed preliminary scoping level RPEs for C-104 and S-112 retrieval technology demonstrations.
- Issued the Preliminary Engineering Report for tank S-112 Retrieval System on March 21, 2001.
- Obtained Critical Decision Zero (CD-0), "Approval of Mission Need," for Project W-523 (C-104 crawler-based, robotic, confined sluicing system).
- Completed Preliminary Conceptual Design Review for Project W-523
- Completed Test Specification in support of cold testing of AEAT Power Fluidics Mixing and Pumping System for S-102 initial retrieval.
- Issued the draft "SST Closure Work Plan" for internal review.
- Issued RPP-7702, "Tank Space Options Report."

III. Significant Planned Actions in the Next Six Months:

- Issue the annual update to the Retrieval Sequence Document.
- Submit the S-112 Saltcake Waste Retrieval Technology Demonstration Functions and Requirements.
- Complete the sampling and analysis of S-112 wastes in accordance with the saltcake dissolution and retrieval performance evaluation Data Quality Objectives.
- Conduct the proof of concept testing of the S-112 saltcake dissolution sprinkler system design in conjunction with U-107 interim stabilization saltwell pumping operations.
- Complete CD-0, "Approval of Mission Need," for the S-112 saltcake dissolution retrieval technology demonstration.

- Complete the RPE methodology in support of S-112 retrieval and LDMM system designs.
- Submit the C-104 Sludge/Hard Heel, Confined Sluicing and Robotic Technologies, Waste Retrieval Demonstration Functions and Requirements.
- Complete the C-104 Sludge/Hard Heel, Confined Sluicing and Robotic Technologies, Waste Retrieval Demonstration conceptual design and obtain CD-1, "Approved Preliminary Baseline."
- Complete cold testing of the AEAT Power Fluidics Mixing and Pumping System in support of S-102 initial retrieval.
- Establish a contract with Sandia National Laboratories to test and evaluate the Russian Pulsating Mixing System.
- Complete initial configuration and testing of an enhanced RPE methodology utilizing uncertainty through a contract with Sandia National Laboratories.
- Complete preliminary performance evaluations of 6 leak detection technologies (partitioning interwell tracer test [PITT], electrical resistivity tomography [ERT], high resolution resistivity [HRR], electromagnetic inductance [EMI], cross-borehole radar [XBR], cross-borehole seismic [XBS]) in support of LDMM requirements for retrieval system designs.

IV. Issues:

- At this time, DOE and its contractors are not performing sufficient work to assure with reasonable certainty that milestones for long-term waste retrieval and tank farm closure can be met. Milestones for negotiation of "second phase" retrievals, remaining tank retrievals, and tank farm closure will provide the means for updating the M-45 series milestones. Completion of the milestones as currently scheduled are subject to the following uncertainties:

    1. Funding uncertainties caused by the annual Federal budgeting process.
    2. Technical uncertainties resulting from the ability to retrieve waste from SSTs in a manner to both meet the retrieval performance goals as well as the retrieval rates necessary to meet the out-year commitments. Additional technical uncertainties include available DST tank space for receipt of SST wastes and processing capabilities of the Waste Treatment Plant.
    3. Regulatory uncertainties resulting from the final closure requirements and ultimate land use planning affect the ability to assess whether closure milestones can be achieved.
    4. Safety-related uncertainties are inherent in any plan that significantly accelerates retrieval and transfer rates beyond what has been accomplished in the past.
    5. Permitting uncertainties resulting from much of the planned activities being first of a kind retrieval and closure actions.

    The actual occurrence of any of these uncertainties could cause schedule slippage for activities post-2006 and the need to submit a change request under provisions of Section

12.0 of the Action Plan. These uncertainties are also the reason that M-45-00C and M-45-00D were built into the recent updates to the M-45 series milestone**s.**

A plan to address DST tank space issues will need to be developed within the next 3 years. The recently issued Tank Space Options Report is a critical first step in developing this plan.

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

I. Near-Term Deliverables:

- M-45-54: Submit to Ecology for review and approval as an Agreement primary document a site-specific SST WMA Phase I RFI/CMS Work Plan addenda for WMA T- TX-TY
  Due: 3/31/01

  Status: Complete

- M-45-55-T01, Submit to Ecology for review and comment as an Agreement secondary document a Field Investigation Report (FIR) pursuant to the site-specific SST WMA Phase I RFI/CMS Work Plan addenda for WMA S/SX

  Due: 1/31/02

  Status: Work on the FIR is underway; forecast on schedule.

- M-45-55-T02, 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 B, BX, and BY

  Due: 10/31/02

  Status: Work not started; forecast on schedule.

- 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: 6/2003

  Status: Work not started; forecast on schedule.

- 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, and B-BX-BY and related activities, including groundwater monitoring and impacts assessment using Hanford Site groundwater models, with conclusions and recommendations

  Due: 2/2004

  Status: Work not started; forecast on schedule.

- M-45-60, Submit to Ecology for review and approval as an Agreement primary document DOE's RFI/CMS Work Plan for SST WMAs

  Due: 6 months following RFI report approval

  Status: Work not started; forecast on schedule.

Work schedule/Baseline management – The correlation between individual TPA milestones and the RPP baseline will be addressed upon completion of the fully integrated RPP baseline.

II. Significant Accomplishments:

- T/TX/TY work plan has been completed and was submitted to Ecology on March 28, 2001 for review. Comments were received from Ecology and changes are being incorporated into the work plan to address the comments. It is anticipated that comment resolution will be completed and the work plan returned to Ecology for approval in late May 2001.
- At WMA S-SX, two water lines were cut and capped to prevent a possible source of water to drive contaminants toward groundwater. Additionally, a 4-inch potable water line and a 14-inch raw water line were pressure tested to determine if the lines were leaking. The 4-inch line recorded no leakage and the 14-inch line recorded ~3-5 gallons of leakage in 24 hours.
- Installation of run-on controls at U farm is scheduled to start May 21, 2001.
- In April, 30% design reviews were completed for installation of run-on controls at WMAs T, TX,-TY, and S-SX. 90% design reviews are scheduled for these areas in late May, with installation to be completed this summer.

III. Significant Planned Actions in the Next Six Months:

- M-45-53: Submit to Ecology for review and approval as an Agreement primary document a site-specific SST WMA Phase 1 RFI/CMS Work Plan addenda for WMA B-BX-BY.
  - Field characterization investigations resumed in early April 2001 at B-110 for the second characterization borehole at WMA B-BX-BY. As of May 15, 2001, the borehole has been advanced to a depth of 130 ft, with samples collected in accordance with the work plan.
- ORP completed calendar year 2000 installation of new RCRA compliant wells around the tank farms. Negotiations are being finalized for installation of calendar year 2001 RCRA monitoring wells around SSTs.
- Pressure testing of water lines at WMA U is estimated to be accomplished in approximately 60 days.

IV. Issues:

- Direction is being given to the Tank Farm Contractor to conduct a study to determine the feasibility of pumping groundwater from the 299-W23-19 well in WMA S-SX for remediation of Tc-99. This activity is estimated to take three months.
- Note: The statement below was added per Ecology's request at the April 10 Project Managers' Meeting.

  A feasibility study on interim actions needs to be established. DOE will send a feasibility study outline for the RFI/CMS to Ecology and copy EPA.

Milestone M-43-00, Tank Farm Upgrades

I. Near-Term Deliverables:

- M-43-14, Start Construction in 3rd farm

  Due: 3/30/01

  Status: Complete

- M-43-15, Start Construction in 4th farm

  Due: 3/29/02

  Status: On schedule

- M-43-16, Start Construction in 5th farm

  Due: 6/30/03

  Status: On schedule (AP farm)

- M-43-00, Complete Tank Farm Upgrades

  Due: 6/30/05

  Status: On schedule, pending definition of completion.

Work schedule/Baseline management – The correlation between individual TPA milestones and the RPP baseline will be addressed upon completion of the fully integrated RPP baseline.

II. Significant Accomplishments:

- Awarded the contract for the 200 East Waste Transfer System piping installation and construction of the new AZ Valve Pit to Thompson Mechanical.
- Awarded the Conceptual Design contract for the 244-S DCRT bypass to Parsons.
- Initiated field work (preparations for annulus exhauster installation) in SY Farm.
- Completed the Nuklad coating above the cover block ledge in AZ-01A.
- Removed AW-B cover blocks.
- Awarded the WTS pipe installation contract to Thompson Mechanical.

III. Significant Planned Actions in the Next Six Months:

- Complete Construction in AY-01A & AY-02B pits
- Perform receipt inspection on SY annulus ventilation equipment
- Perform receipt inspection on WTS pipe

- Perform ATP on AY-02A pit (complete construction)
- Apply new polyurea special protective coating in the AZ pits

Near-term Actions Needed by DOE or Ecology:

- Establish Working Group (including Ecology representatives) to develop / improve milestone completion language for M-43-00.

IV. Issues:

- Ecology and DOE have to define completion. This is scheduled to be done in FY01 when the master negotiation strategy between DOE and Ecology is finalized.

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-47-05, Start construction of waste retrieval and mobilization systems for selected initial low-activity waste feed tank (other than AZ-101 and AZ-102)

  Due: 5/31/04

  Status: On schedule, design of AP-101 transfer pump replacement planned to start in FY 2002.

- M-47-03, Start construction of waste retrieval and mobilization systems for selected initial high-level waste feed tank

  Due: 7/30/04

  Status: On schedule, AZ-101 retrieval system design to be issued for final review during May 2001.

- M-47-01, Complete construction of the transfer system from the 241-AP Tank Farm to the BNFL Facility to support the start of hot commissioning of the Phase I Tank Waste Treatment Complex

  Due: 3/31/06

  Status: On schedule, design of AP-WTP transfer lines has progressed to 60% review package.

- 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: 4/30/06

  Status: On schedule, refer to M-47-05 status above.

Out year (Post 2006) Milestones:

- 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: 3/31/07

  Status: On schedule, construction of new 3" transfer lines (SN-634, SN-636, and SN-637) is at 98% completion. Also, refer to M-47-01 status above.

- M-47-03A, Complete startup and turnover activities for waste retrieval and mobilization systems for selected initial high-level waste feed tank

  Due: 2/28/07

  Status: On schedule, refer to M-47-03 status above.

- 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

  Due: 6/30/07

  Status: On schedule, completed 30% review for AP valve pit and piping upgrades. Also, refer to M-47-01 status above.

- 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: 6/30/10

  Status: Negotiations are not yet underway.

Work schedule/Baseline management – The correlation between individual TPA milestones and the RPP baseline will be addressed upon completion of the fully integrated RPP baseline.

II. Significant Accomplishments:

- Construction Complete Documents (CCDs) were signed on May 8, 2001 for;
  - AN caustic supply system,
  - AP-271 annex, and
  - AZ-156 building modifications.
- Completed 30% design review of AP Valve Pit and piping upgrades
- Completed 60% review package for the AP Farm to Waste Treatment Plant piping design.

III. Significant Planned Actions in the Next Six Months:

- Issue AZ-101 Final Review Package,
- Issue AN-101 Infrastructure and Retrieval System design
- Issue AP-WTP Transfer piping final design
- Issue 60% review package for AP Valve Pit and Piping Upgrades
- Begin design work on new AP-A Valve Pit.

Near-term Actions Needed by DOE or Ecology:

- None

IV. Issues:

- Based on preliminary testing of waste tank contents, the current project transfer system design pressure may not be adequate for worst-case HLW transfers. Additional analysis of waste properties is ongoing and is expected to reduce the bounding transfer pressure. If the results exceed current project design pressures, options for resolution include alternate transfer strategies or adding booster pump capabilities. Resolution is expected by the end of FY01.

M-62, Complete Pretreatment Processing and Vitrification of Tank Wastes

I. Near-Term Deliverables:

- M-62-01, Submit Semi-Annual Compliance Report

  Due: Semi-annually beginning July 31, 2000

  Status: Semi-Annual reports are being submitted on time and in accordance with the format and content defined verbally by Ecology. DOE received a response from Ecology and will be working to resolve the issues identified.

- M-62-06, Start of Construction – Phase I Treatment Complex
  Due: 7/31/01

  Status: DOE will miss this milestone. Estimates to start construction range from April 2002 to December 2002. (See issues)

  Note: As discussed in the April 10, 2001 PMM, Ecology still expects DOE to meet the July 2001 completion date of this milestone.

- M-62-07, Construction Progress Milestones (2) – Phase I Treatment Complex

  Due: TBD

  Status: This milestone is tied to M-62-05 that was deleted by the Consent Decree revision. DOE submitted a draft change package for construction progress milestones, milestone definition, and commitment dates that align these activities to the Bechtel-Washington baseline schedule. A technical, cost and schedule baseline is a contract deliverable scheduled for submittal on April 15, 2001. (See issues)

- M-62-08, Submittal of Hanford Tank Waste Phase II Treatment Alternatives Report

  Due: 7/31/05

  Status: On schedule

  The Strategic Planning Group within the ORP Office of the Assistant Manager for Integration and Control has initiated long range planning for the remainder of the Hanford waste immobilization. Efforts include proposed R&D needs, tank waste inventory projections and plant sizing options. Initial submittal of the report is scheduled for July 31, 2005.

- M-62-03, Submit DOE petition for RCRA de-listing of vitrified HLW

  Due: 12/31/06

  Status: BNFL submitted the final immobilized high-level waste de-listing approach on April 18, 2000. The document was transferred from CHG to BNI as part of the transition. This activity is on schedule to be completed by 12/31/06.

Out year (Post 2006) milestones:

- M-62-09, Start (Hot) Commissioning
  Due: 12/31/07
  Status: Hot Commissioning of the Phase I Treatment Complex is on schedule. This milestone is a contract requirement for the Waste Treatment Plant, reference Section F, paragraph F.1 (b) milestone M-4. The contractor is incentivised to meet or beat the start of Hot Commissioning by December 31, 2007.

- M-62-10, Start Commercial Operations – Phase I Treatment Complex

  Due: 12/31/09

  Status: DOE and its Contractors are not doing sufficient work to ensure with reasonable certainty that this milestone will be attained as currently defined in the TPA. The concept of "Commercial Operation" has been removed from the new contract approach.

- M-62-11, Submittal of Hanford Tank Waste Treatment Phase II Plan

  Due: 1/31/14

  Status: On schedule

- M-62-00A, Complete pretreatment, processing and vitrification of Hanford Phase I HLW and Low Activity Waste (LAW)

  Due: 2/28/18

  Status: On schedule

  As committed to in the First Amendment of the Consent Decree, paragraph XIV.A, DOE is on a schedule to complete the first 10% of waste processing measured by mass and 25% of waste processing measured by radioactivity by 2/28/18.

- M-62-00, Complete pretreatment processing and vitrification of Hanford high level and low activity tank waste

  Due: 12/31/28

  Status: On schedule

  ORP remains committed to this activity. The completion date for this milestone will be evaluated on a continual basis as we progress with this program. Committed means that DOE intends to "bring about" or perform all work to ensure that Hanford's high-level radioactive waste is vitrified by 12/31/28.

- M-62-12, Issuance of DOE Authorization to Proceed – Phase II Treatment

  Due: TBD

  Status: This milestone will be negotiated in the 2014 timeframe.

Work schedule/Baseline management – The correlation between individual TPA milestones and the RPP baseline will be addressed upon completion of the fully integrated RPP baseline.

II. Significant Accomplishments:

- Formal ES&H Interface meetings with Ecology and Health resumed in February 2001.
- The transition of the reference plant design from CH2MHill to Bechtel Washington was completed as scheduled on 2/28/01. Bechtel Washington subsequently has been approved by the Office of Safety Regulation to continue to perform work "Important to Safety" and is fully authorized to manage the WTP Safety Authorization Basis.
- Bechtel Washington submitted contract-required deliverables, which are being reviewed by ORP for contract compliance.
- ORP received the WTP Project Baseline deliverable on April 15, 2001 and is process of conducting its review.

III. Significant Planned Actions in the Next Six Months:

- DOE's purchase of the pilot melter in Columbia, Maryland was expected to occur in April 2001. Continuation of pilot melter research and technology will resume as soon as Bechtel Washington awards a contract to Duratek.
- DOE is staffing up to meet the challenge of reviewing several new contract deliverables over the next 6 months. Deliverable review plans have been transmitted to Bechtel Washington for their use in preparing those deliverables.

IV. Issues:

- **Resolution of Concerns Regarding Milestone M-62-01**

  The subject report was submitted on time but not to the satisfaction of Ecology. On October 12, 2000, DOE submitted an update to the initial report and a response to the eleven items of purported non-compliance defined in the September 18, 2000 letter to Harry Boston from Mike Wilson. ORP is awaiting closure of the eleven issues prepared by Ecology. ORP received verbal approval accepting the October report on January 10, 2001. Ecology also stated that if the January report was similar to the October report, they did not foresee any issues. An updated report was delivered to Ecology on January 29, 2001, however Ecology's assistance is requested to help us understand your expectations for future deliverables. It should be noted that DOE has documented the telephone conversation between our staff and John Grantham relative to his verbal approval accepting the October report. A copy of that email documenting the conversation can be provided to Ecology for their official records. Ecology approval is needed before the next submittal.

  Status: ORP staff has been in contact with Mr. John Grantham of Ecology's staff. Upon receipt of this report, it is requested that Ecology please contact us so that we may meet to insure that Ecology's expectations for this report are being met.

- **Revise and definitize TPA Language Concerning Milestones M-62-06, M-62-07, and M-62-10.**

  DOE submitted a draft change package to address schedule issues. These changes were requested to align schedules and associated work directives to the ORP baseline schedule, which is based upon critical path project management. Ecology rejected the change request on May 16. DOE resubmitted a revised change request on May 21 requesting that Ecology reconsider their disapproval. On April 15, 2001, Bechtel-Washington (BNI) submitted to DOE its proposed baseline. According to that submittal, BNI proposed a November 2002 date for start of construction. DOE has, up until recently, been reviewing the baseline submittal for concurrence, but has suspended its review until BNI provides appropriate modifications to the April 15th submittal. However, at this time there is only a slight chance that the proposed November 2002 date will change. Confirmation of the date will occur in the next couple of weeks. It is expected that shortly following this confirmation, TPA parties will agree to revise the construction milestones according to the provisions stated in M-62-05. DOE has stated that the start of construction milestone cannot be met because the TPA milestone date is predicated on the intent to perform the work under a privatization approach and with a funding level of $606 million dollars in FY 2001.

  Status: Discussions are ongoing.

- **Compressed RPP-WTP Environmental Permitting Schedule Required to Meet Proposed Start of Construction Date**

  The RPP-WTP is on an exceedingly ambitious schedule to acquire the requisite environmental permits needed to meet the 2002 start of construction date proposed in the current schedule. Acquisitions of these permits are predicated on the project achieving a sufficient level of design necessary to allow for the development of these documents. It is anticipated, given the minimal amount of time needed to advance the RPP-WTP design to the level required to write the permits, that the schedule to develop and review these permits will be extremely compressed, and will require extraordinary efforts by both project and regulatory personnel in order to prepare, review, and approve these documents by the proposed start of construction date. It should be noted that the Waste Treatment Plant permit will be issued as a final status permit and that a compliance schedule will be established to deliver design packages for approval by Ecology after the permit is issued.

  Status: Discussions are ongoing between ORP and Ecology staff members to coordinate and streamline the permitting process to the extent practicable.

- **The Privatization approach to the start of sustained throughput called Commercial Operation has been changed under the approach currently defined in the WTP Contract.**

  This milestone is not specifically referenced in the Waste Treatment Plant contract because the concept of "Commercial Operation" was eliminated by the termination of a "commercial" enterprise. DOE, as the new owner of the WTP, will attain and sustain throughput of the pretreatment and LAW vitrification by December 31, 2009 and attain and sustain throughput

of HLW vitrification by January 31, 2011. These dates, as described in the contract are for completion of Hot Commissioning, not Commercial Operation. The proposed completion of Hot Commissioning for HLW (1-31-11) is inconsistent with this milestone (12-31-09) and has been addressed in a draft TPA change control package. Adjustment through the change control process means that DOE will initiate a formal change control form and submit to Ecology for their consideration in accordance with Section 12 of the agreement. Ecology can either accept or reject based on their review of the justification of the change.

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

I. **Near-Term Deliverables:**

- M-90-08, Initiate ILAW Disposal Facility Construction.

  Due: 7/31/04

  Status: See Section IV, Issues.

- M-90-09-T01, Complete ILAW Facility Detailed Design.

  Due: 3/30/04

  Status: See Section IV, Issues.

- M-20-56, Submit Canister Storage Facility Part B Dangerous Waste Permit Application to Ecology.

  Due: 6/30/02

  Status: On schedule

- M-20-57, Submit ILAW Disposal Facility Certified Part B Permit Application to Ecology

  Due: 8/31/02

  Status: On schedule

Out year (Post 2006) milestones:

- M-90-10, Initiate Placement of ILAW Waste Canisters in ILAW Disposal Facility

  Due: 1/31/07

  Status: See Section IV, Issues.

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

  Due: 2/01/07

  Status: See Section IV, Issues.

Work schedule/Baseline management – The correlation between individual TPA milestones and the RPP baseline will be addressed upon completion of the fully integrated RPP baseline.

II. Significant Accomplishments:

- The draft 2001 Performance Assessment was reviewed by DOE and Ecology, revised, and submitted to HQ on April 3, 2001. The document will be reviewed by the HQ Low Activity Waste Federal Review Group at Hanford June 4-8, 2001. An agenda will be provided to Ecology.
- ILAW disposal site borehole #2 has been drilled and samples taken. The draft report is due to DOE for review by August 31, 2001.
- Issued the ILAW disposal level 1 specification.
- The ILAW Disposal Project W-520 90% conceptual design report and project definition criteria were issued to DOE-ORP on April 19, 2001 for review.
- The Design Requirements Document and Project Execution Plan for IHLW Interim Storage Project W-464 were approved by DOE after comments were incorporated. The Quality Assurance Program Plan was approved with minor exceptions.

III. Significant Planned Actions in the Next Six Months:

- Transmit W-520 NOI to Ecology – After incorporation of a SEPA checklist.
- Complete the ILAW remote-handled waste trench conceptual design (Project W-520) – May 2001.
- Initiate IHLW Interim Storage Facility Preliminary Design (Project W-464) - July 2001.
- Issue the final 2001 ILAW Disposal System Performance Assessment – August 2001.
- Complete LAW and HLW melter disposal alternative generation and analyses – September 2001.
- Issue report on borehole #2 sample characterization - September 2001.

IV. Issues:

- ORP submitted a change request package to Ecology and EPA on February 26, 2001 to align the M-90 milestones to the CHG contract. A new change request was submitted on May 2, 2001, which would provide renegotiation of the M-90 and M-20 milestones based on considerations of the new waste treatment plant schedule.

Backup Information
Cost and Schedule Variance Analysis

MONTHLY PROJECT REPORT
TOTAL RIVER PROTECTION PROJECT

PERFORMANCE MEASUREMENT - FYTD - ALL FUND TYPES

DOLLARS IN THOUSANDS

1. TITLE: River Protection Project	2. REPORTING PERIOD: 27-Feb-01 TO: 26-Mar-01	3. HQ NUMBER:
4. PARTICIPANT NAME AND ADDRESS: CH2M HILL Hanford Group P. O. Box 1500 Richland, Washington 99352-1505	5. COST PLAN DATE: 01-May-01	6. START DATE: 01-Oct-00 7. FINISH DATE: 30-Sep-46

PBS / TITLE		CURRENT PERIOD					CUMULATIVE FISCAL YEAR TO DATE					ESTIMATE AT COMPLETION (EAC)*	BUDGET AT COMPLETION (BAC)
		Budgeted Cost		Actual Cost	Variance		Budgeted Cost		Actual Cost	Variance			
		Work Scheduled	Work Performed	Work Performed	Schedule	Cost	Work Scheduled	Work Performed	Work Performed	Schedule	Cost		
TW01	TANK WASTE CHARACTERIZATION	2,679.8	1,819.8	1,638.1	(860.0)	181.7	12,506.8	11,379.2	11,474.1	(1,127.6)	(94.9)	25,699.0	26,247.3
TW02	TANK SAFETY ISSUE RESOLUTION	1,281.0	1,415.8	1,165.3	134.8	250.5	9,460.4	9,346.4	6,574.2	(114.0)	2,772.2	19,673.0	20,489.8
TW03	TANK FARM OPERATIONS	7,029.4	9,826.9	9,037.4	2,797.5	789.5	60,171.7	56,561.5	55,467.5	(3,610.2)	1,094.0	121,956.0	124,575.1
	W-314 - TF Rest'n - LI	2,079.0	1,588.1	2,081.8	(490.9)	(493.7)	12,710.9	12,823.7	14,820.2	112.8	(1,996.5)	41,089.0	42,898.7
	TOTAL OPS	9,108.4	11,415.0	11,119.2	2,306.6	295.8	72,882.6	69,385.2	70,287.7	(3,497.4)	(902.5)	163,045.0	167,473.8
TW04	RETRIEVAL	3,940.9	3,605.2	2,768.4	(335.7)	836.8	25,020.7	18,947.9	13,806.6	(6,072.8)	5,141.3	46,759.0	53,988.6
	W-211 - Init Tank Ret'vl Sys-LI	324.0	312.9	426.7	(11.1)	(113.8)	2,280.2	1,736.9	2,092.2	(543.3)	(355.3)	4,702.0	5,476.0
	W-521 - Waste Feed Del Sys	1,531.7	614.7	238.0	(917.0)	376.7	4,077.7	1,800.9	774.8	(2,276.8)	1,026.1	4,244.0	9,174.4
	TOTAL RETRIEVAL	5,796.6	4,532.8	3,433.1	(1,263.8)	1,099.7	31,378.6	22,485.7	16,673.6	(8,892.9)	5,812.1	55,705.0	68,639.0
TW05	PROCESS WASTE SUPPT	65.4	62.2	21.4	(3.2)	40.8	639.7	421.6	461.0	(218.1)	(39.4)	1,071.0	1,071.3
TW08	VITRIF'CN FACILITY INFRASTRUCTUF	263.1	282.0	279.3	18.9	2.7	1,400.3	1,309.8	937.5	(90.5)	372.3	2,428.0	3,238.4
	W-519 - Phase I Infrast -LI	867.3	1,289.9	1,345.3	422.6	(55.4)	5,854.4	8,740.5	6,016.2	2,886.1	2,724.3	9,882.0	12,129.3
	TOTAL VITRIFIC'N FAC INFRASTRUCT	1,130.4	1,571.9	1,624.6	441.5	(52.7)	7,254.7	10,050.3	6,953.7	2,795.6	3,096.6	12,310.0	15,367.7
TW09	IMMOBILIZED WASTE STG & DISP'SL	842.8	1,080.1	1,238.6	237.3	(158.5)	4,143.6	4,007.0	3,165.6	(136.6)	841.4	7,838.0	8,356.5
	W-464 - IHLW INTERIM STG FAC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,275.0	1,274.7
	TOTAL IMMOBIL'ZD WASTE STG & DI	842.8	1,080.1	1,238.6	237.3	(158.5)	4,143.6	4,007.0	3,165.6	(136.6)	841.4	9,113.0	9,631.2
TW10	RPP MANAGEMENT SUPPORT PROJE	7,189.2	7,327.1	5,650.1	137.9	1,677.0	39,339.5	38,757.1	30,762.0	(582.4)	7,995.1	79,580.0	84,050.1
RPP TOTAL EXPENSE/CENRTC WITHOUT TW06		23,291.6	25,419.1	21,798.6	2,127.5	3,620.5	152,682.7	140,730.5	122,648.5	(11,952.2)	18,082.0	305,004.0	322,017.1
RPP TOTAL LINE ITEM WITHOUT TW06		4,802.0	3,805.6	4,091.8	(996.4)	(286.2)	24,923.2	25,102.0	23,703.4	178.8	1,398.6	61,192.0	70,953.1
RPP TOTAL - WITHOUT TW06		28,093.6	29,224.7	25,890.4	1,131.1	3,334.3	177,605.9	165,832.5	146,351.9	(11,773.4)	19,480.6	366,196.0	392,970.2
TW06	VITRIF'CN FACILITY PH I	1,317.8	3,635.2	1,887.2	2,317.4	1,748.0	65,694.4	62,989.0	57,851.8	(2,705.4)	5,137.2	63,709.0	71,661.5
RPP TOTAL EXPENSE/CENRTC WITH TW06		23,291.6	25,419.1	21,798.6	2,127.5	3,620.5	152,682.7	140,730.5	122,648.5	(11,952.2)	18,082.0	305,004.0	322,017.1
RPP TOTAL LINE ITEM WITH TW06		6,119.8	7,440.8	5,979.0	1,321.0	1,461.8	90,617.6	88,091.0	81,555.2	(2,526.6)	6,535.8	124,901.0	142,614.6
RPP TOTAL - WITH TW06		29,411.4	32,859.9	27,777.6	3,448.5	5,082.3	243,300.3	228,821.5	204,203.7	(14,478.8)	24,617.8	429,905.0	464,631.7

SCHEDULE PERFORMANCE ($M)

	BCWP	BCWS	VARIANCE
RPP TOTAL	$228.8	$243.3	($14.5)

SCHEDULE VARIANCE

The $14.5 million (6.0 percent) unfavorable schedule variance is attributed to the following factors:

TW01 TANK WASTE CHARACTERIZATION

Description and Cause: The unfavorable schedule variance (-$1,128K; -9%) is due to the following:

- There was a late start on polychlorinated biphenyl (PCB) analyses while labs awaited approval to accept PCB samples in their facility.
- AP-104 Grab sample is behind schedule on analysis because the tank was sampled later than planned in the baseline schedule.

Impact: The schedule for the PCB analysis will be recovered and there will be no adverse impact at fiscal year end. The AP-104 grab analysis is tied directly to one of the Characterization performance-based incentives (PBIs). It is one of twelve required Grab LAR's, and is projected for completion by fiscal year end. No adverse impact is expected.
Corrective Action: None required. All work will be complete by fiscal year end.

TW02 TANK SAFETY ISSUE RESOLUTION

Description and Cause: The unfavorable schedule variance (-$114K; -1%) is within the reporting threshold.
Impact: There is no impact.
Corrective Action: None required.

TW03 TANK FARM OPERATIONS

Description and Cause: The unfavorable schedule variance (-$3,497K; -5%) is due to the following:

- Delays on DST Corrosion Mitigation scheduled activities were impacted by the unsuccessful bump of the AN-102 transfer pump.
- Waste transfers negative schedule variance is primarily the result of time phasing of the resource-loaded schedule. The schedule is front end loaded and the transfers will be done throughout the fiscal year.
- In Essential Services, Resource Conservation and Recovery Act of 1976 (RCRA) Part B activities were front end loaded in the schedule but will be performed throughout the year. Two additional levels of effort items, 204-AR Technical System Analysis and AP Technical System Analysis have not been started.

- DST Compliance Upgrades has proposed work scope deletions in the pressure transmitter installation and a reduction in the required installation in DST differential pressure indicator (DPI) interlocks.
- The delays in restarting A-101 and AX-101 (driven by lock and tag issues) in SST Interim Stabilization (IS) are causing BY-105/106 tank startup work to fall behind schedule.
- PCB compliance activities have been put on hold pending risk based approval.

Impact: The delays on the scheduled activities in DST Corrosion Mitigation and all subsequent activities such as engineering a solution, work package planning, procurement, procedure writing, and training have slipped but have not impacted the critical path. Restart of A-101, due February 21, 2001, was missed. No additional impacts to major milestones are anticipated.

Corrective Action:

- The current path forward is to have an electrical outage and correct the line voltage (Complete), replace the pump motor with one from spares (pump motor located), upgrade the wiring, increase the impeller clearance, and hook up the Variable Frequency Drive (VFD), thereby providing the flexibility to run the transfer pump at a reduced RPMs.
- The 204-AR Technical System Analysis and AP Technical System Analysis have been identified for reduction.
- Implementation of a proposed Baseline Change Request (BCR) for deletion and issuance of a "White Paper" reducing scope of DPI installations is required.
- Overtime (within IS fiscal year budgeted quantities) is being worked as needed, and preparation of work packages is being coordinated to minimize lock and tag impacts.
- Rebaselining of the PCB effort is in progress.

TW04 RETRIEVAL

Description and Cause: The unfavorable schedule variance (-$8,893K; -28%) is due to the following:

- Work was not started as scheduled in Phase I DST Retrieval Operations on the long-length contaminated equipment (LLCE) and installation of two construction support trailers.
- The negative schedule variance for acquisition strategies and trade studies (decision 1) work will be replanned through a BCR (in process) that recommends replanning the scope to enable condition assessment of SY equipment to be completed this fiscal year. Work on the system/component verifications is behind schedule due to the decision to reschedule the AY and AW Farm assessments to coordinate with other work being performed in the farms, and with the work performed on the AP assessment.
- Lab testing for AN-102, AY-102, and AZ-102 has been deferred. The lab is understaffed and has deferred dilution and rheology testing and analysis to the end of the fiscal year. The Operations and Utilization Plan is behind schedule for issuing a May revision, but there is no driver for the May due date.
- In DST Retrieval Project Definition, a delay in starting work on the Cold Pump Test, Training, and Mockup Facility has occurred. Work was level loaded in the schedule, but most activities are planned for the third and fourth quarters of FY01.
- In Project W-211, Initial Tank Retrieval System (ITRS), the unfavorable schedule variance is caused by delays in AN construction, inclusion of health physics technicians (HPTs) in the baseline, and the level loading of contingency. HPTs will not be required and progress on contingency has not been recognized.

- In Project W-521, Waste Feed Delivery (WFD) Systems, the design for transfer piping and AP upgrades started later than planned, the AP-A valve pit was deferred, and the existing baseline incorrectly includes design of AW upgrades, which will be performed in FY06.
- Non-critical path Conceptual Design activities in W-523, SST Retrieval Systems, are behind schedule because of delays in obtaining Critical Decision 0 (CD-0) approval.
- The procurement of the Crawler vendor required more time than planned.
- With the completion of the "White Paper" for the Partitioning Interwell Tracer Test (PITT), the baseline schedule does not reflect how the work is going to be performed.
- In Vadose Zone activities, Ecology delay in approval of wells to be drilled delayed the RCRA groundwater well installation schedule by two and one half months. Also, S-SX Pacific Northwest National Lab (PNNL) analysis is projected to finish two and one half months behind schedule.

Impact: Work in lab testing for AN-102, AY-102, and AZ-102 may not be completed by the scheduled due date which will require planning budget for these activities in the out years. The AP-A work can be deferred without affecting the critical path. No impact is expected for completion of Project W-523 by September 28, 2001. There is no impact to PITT deliverables. Completion of six wells by the end of FY01 will require a tight schedule in Vadose Zone.

Corrective Action:

- Some scope deferrals on the LLCE and construction support trailers have been identified and are being reviewed.
- BCR approval and implementation for acquisition strategies and trade studies (decision 1) work will realign work activities in DST Retrieval System Development.
- Investigate the possibility of using another lab in the future for dilution and rheology testing and analysis. Discussions with DST WFD indicate the Operations and Utilization Plan document might be more useful if the revision is delayed until the end of the fiscal year.
- A path forward is being determined on Cold Pump Test, training, and Mockup Facility.
- In Project W-211, the approval of BCR RPP-01-081 will correct the schedule loading for HPTs and project contingency. AN caustic supply construction will be completed in April.
- In Project W-521, AW work will be moved upon approval of BCR RPP-01-081. Another BCR will be prepared to defer the AP-A work.
- Approval of the CD-0 package was received from Office of River Protection (ORP) in mid-March and 60% conceptual design was initiated.
- The procurement of a Crawler vendor was completed on April 12, 2001.
- Drilling contracts are being expedited in Vadose Zone activities to recover schedule from delays in well approval from Ecology. Workarounds are in place to minimize the impact of unrecoverable schedule in PNNL performance of analysis on S-SX samples.

TW05 PROCESS WASTE SUPPORT

Description and Cause: The unfavorable schedule variance (-$218K; -34%) is due to minimal work being performed on Interface Management activities pending completion of Bechtel due diligence.

Impact: No impact to the project.

Corrective Action: A replanning is in process with expected completion of the appropriate change documentation by April 30, 2001.

TW06 VITRIFICATION FACILITY PHASE I

Description and Cause: The unfavorable schedule variance (-$2,705K; -4%) is due to the following:

- Minor schedule variances in High Level Waste (HLW)/Low Activity Waste (LAW) facility civil/structural/architectural design; HLW mechanical handling melter; LAW receipt/blending support and LAW secondary off gas/vessel development; and LAW flow sheet modeling. Also contributing to the variance was hiring delays and software coding inefficiencies.
- Technical difficulties, no available resin, and direction to limit expenditures in certain areas early in the program when Savannah River Technology Center (SRTC) was forecasting an expenditure rate exceeding baseline resulted in SRTC being significantly behind schedule in the following areas: flow sheet modeling, small-scale melter vitrification of pretreated AN-102 sample, C-106 glass preparation and analysis, HLW sludge mixing tests with glass formers, AZ-102 glass preparation and sample analysis, and evaporator off gas analysis.

Impact: No impact.

Corrective Action: The schedule variance will be reconciled in the new Bechtel baseline.

TW08 VITRIFICATION FACILITY INFRASTRUCTURE

Description and Cause: The favorable schedule variance ($2,796K; 39%) is the result of fixed price contract incentives and a high degree of planning and integration when working with existing facilities to achieve Project W-519 accelerated schedule.

Impact: Project will be completed ahead of current baseline schedule (meets ORP8.1.2S).

Corrective Action: None required.

TW09 IMMOBILIZED WASTE STORAGE AND DISPOSAL

Description and Cause: The unfavorable schedule variance (-$137K; -3%) is within the reporting threshold.

Impact: There is no impact.

Corrective Action: None required.

TW10 RPP MANAGEMENT SUPPORT PROJECT
Description and Cause: The unfavorable schedule variance (-$582K; -2%) is due to the following:

- Deletion of work scope is pending and a late start is forecast on the annual Systems Engineering Management Plan (SEMP).
- No progress has been taken on the Fluor Hanford (FH) Miscellaneous Services Systems Engineering task because this work is being self performed by CHG.

Impact: The schedule variance within the FH systems engineering account and the Nuclear Operations systems engineering activities will continue pending a baseline change request to delete the scope.
Corrective Action: BCRs for the systems engineering accounts are in process.

COST PERFORMANCE ($M)

	BCWP	ACWP	VARIANCE
RPP TOTAL	**$228.8**	**$204.2**	**$24.6**

COST VARIANCE

The $24.6 million (10.8%) favorable cost variance is attributed to the following factors:

TW01 TANK WASTE CHARACTERIZATION
Description and Cause: The unfavorable cost variance of (-$95K; -1%) is within the reporting threshold.
Impact: There is no impact.
Corrective Action: None required.

TW02 TANK SAFETY ISSUE RESOLUTION
Description and Cause: The favorable cost variance of ($2,772K; 30%) is due to the following:

- SY-101 Level Rise Unanswered Safety Questions (USQ) cost less to close than planned in the baseline due to acceleration of the schedule.
- Due to FY00 Standard Hydrogen Monitoring System (SHMS) removal/isolation, reduced work scope is required in FY01. Retained Gas Sampler (RGS) hot cell cleanout is costing less due to the 222-S Characterization Laboratory doing some work on their own.

Impact: There is no impact.
Corrective Action: BCR RPP-01-065 is in process to delete scope from Environmental, Safety, Health and Quality (ESH&QA) SHMS and RGS. A funds change request (FCR) will capture efficiencies.

TW03 TANK FARM OPERATIONS

Description and Cause: The unfavorable cost variance of (-$902.5K; -1.3%) is due to the following:

- Project W-314, Tank Farm Restoration and Safe Operations, planned resources in the baseline for AY farm that are insufficient to complete the work scheduled. Carryover work scope from FY00 for AW Phase I and AN Phase II design is not in the present baseline.
- Preventative maintenance (PM) and corrective maintenance (CM) is costing more than planned in Tank Farm Complexes. This is partially due to use of overtime.
- Operations training costs are higher than planned due to unplanned Operating Engineer training and increased training requirements to resolve conduct of operations issues.
- Project Management costs are exceeding budget in training and desktop/phone support due to under budgeting of these required activities in FY01 and higher than anticipated costs.
- Fabrication work for Interim Stabilization (IS) and Characterization sampling equipment was charged to SST complexes.
- Contributing to lowering the negative cost variance is the cost under run in Essential Services procedures and planned efficiencies in Records Inventory and Disposition Schedule (S/RIDS); favorable contract credits from FY00; and efficiencies for work performed in DST Compliance Upgrades.
- Also lowering the negative cost variance is the simplification of the caustic delivery system design and simplified Authorization Basis (AB) amendment and readiness reviews. Another contributor was the efficient execution of the caustic additions to tanks AY-101 in January 2001 and to AY-102 in February 2001.
- Significant improvements in how "in-canyon work" is to be performed, specifically cost reductions for in-canyon ventilation and tank cutting for pump insertion, also lowered the negative cost variance.
- PCB compliance activities have been put on hold pending risk-based approval providing another offset to the negative cost variance.

Impact: Year-end cost overruns are forecasted in elements of Project W-314, PMs and CMs, training requirements, and desktop/phone support.

Corrective Action:

- Implement carryover W-314 work scope into baseline. AY farm overrun will be managed by the project.
- The DST Operations office is planning to more efficiently use resources by implementing the "outage" concept for routine PMs and CMs.
- Project managers are evaluating training records to eliminate non-required training to reduce the training overrun.
- Planned cost corrections/transfers will reduce the variance in Project Management. The balance of the anticipated overrun in Project Management will be managed, as appropriate, through BCRs and FCRs.
- Fabrication Services has closed the SST complex contract and is now in the process of performing cost transfers to approved IS and sampling program contracts.
- A BCR is in progress to reduce scope in PCB compliance activities.

TW04 RETRIEVAL

Description and Cause: The favorable cost variance of ($5,812K; 26%) is the result of:

- Under runs on the reliability, availability, and maintainability (RAM) analysis and the Operations & Maintenance (O&M) concept, the trade studies, and Tier 2 Review of Nuclear Safety & Licensing submittals. Work on the O&M concept is on hold pending redefinition of the scope for that deliverable. The RAM analysis has been completed for FY01. Some of the trade studies are on hold and new ones have not been initiated due to loss of engineering staff (both employees and staff augmentation). Submittals from Nuclear Safety and Licensing are in preparation and review of the documents will take place later in the fiscal year.
- Costs to date on AP-101, Dilution/Dissolution test are much lower than budgeted. Work on interface control documents (ICDs) 19 and 20 have been delayed due to contract transition. Positive cost variance for ICDs results from level of effort performance being recorded. Management account for inventory and Flowsheet Engineering has realized efficiencies from consolidating engineering management accounts.
- DST Retrieval Project Definition has administrative accounts that have not been utilized this fiscal year.
- Project W-521, Waste Feed Delivery (WFD) Systems, Project Management and Engineering work is being performed more efficiently than budgeted. Incorrect accruals on the design activities were applied in March.
- Project W-523, SST Retrieval Systems has an under run in Pre-Conceptual Design activities.
- Efficiencies have been gained in preparation and maintenance of Authorization Basis (AB) documentation. Combined maintenance of AB with current staff functions and reduction of subcontracted support, and innovative technology selection contributed to the positive variance.
- Vendor proposals regarding the Crawler development, in support of C-104, took longer than planned. The contract was awarded in April.
- Ten subcontracts within three areas: Supporting analyses, S-SX Field Investigation Reports, and T-TX-TY Data Quality Objectives, continue to see cost efficiencies.

Impact: There is no impact to the critical path. Any cost impacts to the Crawler delay needs to be analyzed.

Corrective Action:

- Funding in the RAM analysis and the O&M concept will be reduced due to efficiencies identified.
- Work on ICDs 19 and 20 will begin in June. Funds from the management account have been allocated for other work.
- W-521 will be closely monitored. Efficiencies in Pre-Conceptual Design activities and administrative accounts are being applied towards the EAC Challenge.
- The delay in the Crawler procurement is not expected to affect long-term deliverables.

TW05 PROCESS WASTE SUPPORT

Description and Cause: The unfavorable cost variance (-$39K; -9%) is due to Pacific Northwest National Lab (PNNL) costs for Waste Integration Team (WIT) FY00 carry over work scope that was not included in the FY 01 baseline.

Impact: All costs related to carry over scope have been received and the cost variance will remain.

Corrective Action: A BCR to incorporate the carry over work scope is being evaluated.

TW06 VITRIFICATION FACILITY PHASE I

Description and Cause: The favorable cost variance ($5,137K; 8%) is due to the following:

- Savannah River Technology Center is running two months behind in billings.
- CHG performance baseline fee versus final negotiated incentive fee pool.
- CHG efficiencies realized in Integrated Joint Venture (IJV) Facilities, HLW/LAW design, ES&H, and Operations. Due to efficiencies, CHG personnel were made available to support Bechtel (BNI) work scope.
- Favorable variance for level of effort Department of Energy (DOE) direct funded Pacific Northwest National Lab (PNNL) scope.

Impact: There is no impact.

Corrective Action: None required.

TW08 VITRIFICATION FACILITY INFRASTRUCTURE

Description and Cause: The favorable cost variance ($3,097K; 31%) is due to the cost to perform the scheduled work being less than budgeted for the fixed price (FP) construction contracts. CMs and PMs costs continue to be less than anticipated.

Impact: The current under run will continue.

Corrective Action: None required.

TW09 IMMOBILIZED WASTE STORAGE AND DISPOSAL

Description and Cause: The favorable cost variance ($841K; 21%) is due to the following:

- Project W-520, Immobilized Low Activity Waste Disposal Facility, work on the Conceptual Design Report (CDR) and Preliminary Safety Evaluation being performed for less than planned. This was possible due to efficiencies in using previous studies and draft CDR.
- In Project W-464, Immobilized High Level Waste Interim Storage Facility, RCRA permitting services are costing less than anticipated and the closeout of a FY00 purchase order.

Impact: The current under run will continue.

Corrective Action: A funds change request (FCR) is being prepared to return funding to management reserve.

TW10 RPP MANAGEMENT SUPPORT PROJECT

Description and Cause: The favorable cost variance ($7,995K; 21%) is due to the following:

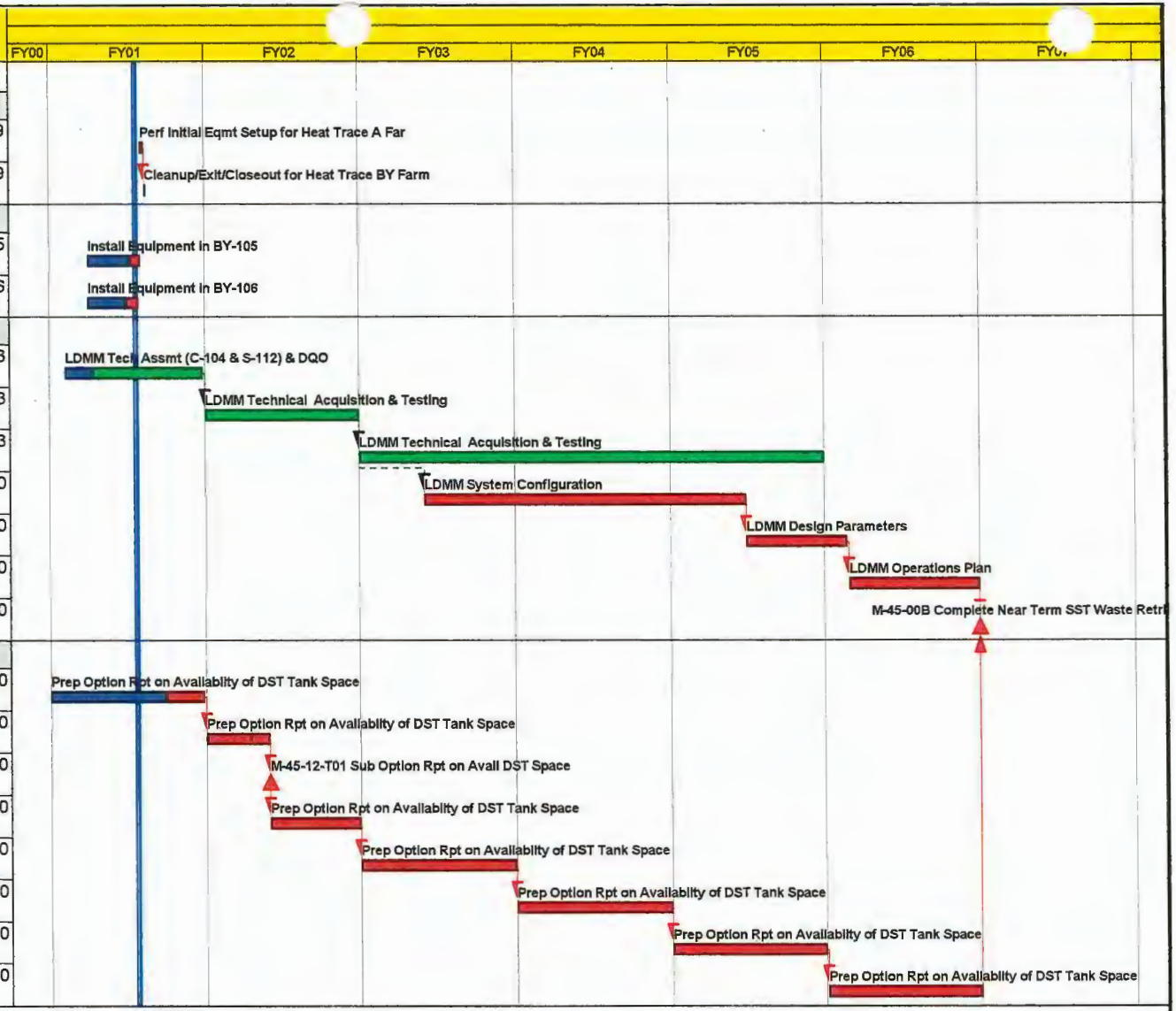
- Vacant positions, staff efficiency, and staff augmentation in General Counsel, Human Resources, Strategic Communications, Financial Control, Cost Estimating, and Central Procurement.
- Contracts have not been issued to outside law firms.

- Resources supporting Change Control and Interface Management activities have been minimized until the change control directive and interface management plan are stable and the appropriate evaluations and updates to CHG data can be performed.
- The Life Cycle cost model support was reduced in the beginning of the fiscal year.
- A one-time procurement for the automation of the Expanded Management Summary Schedule, Management Summary Schedule, and Milestone Sequence Chart has not occurred.
- The budget being spread over 12 months instead of 5 (based on planning assumptions made in FY00) in the Waste Treatment Plant (WTP). This has resulted in higher than planned liquidations.
- FH site services and FH-CHG shared services actual costs continue to be less than planned.
- The allocation of cost for Hanford Engineering Health Foundation (HEHF) on actual usage versus allocation of budget on headcount and has resulted in reduced costs.
- Existing resources are being used to support the critical path acceleration work. Also a credit for over accruals of FY00 contracts was received in Integration.

Impact: Will continue to carry a positive cost variance.

Corrective Action: Requisitions are in place to fill some of the vacancies. The Life Cycle cost model support will significantly increase in the April to July time frame in support of the new CHG baseline and WTP baselines that must be incorporated into the model. The procurement for the management schedules and Milestone Sequence Chart is planned for May. Funds change requests have been prepared to return funding to management reserve.

Activity ID	ID	Orig Dur	Early Start	Early Finish	Total Float
230.707 Perform Infrastructure Upgrades for BY-Farm					
SS23707B7	1	5	07MAY01	11MAY01	-69
SS23707B8	1	5	14MAY01	18MAY01	-69
230.810 OGT for BY Farm					
SS23810H	1	5	02JAN01A	04MAY01	-25
SS23810J	1	5	31DEC00A	01MAY01	-56
270.610 Evaluate Retrieval Technology Solutions					
TT27610JA	1	229	09NOV00A	28SEP01	103
TT27610JB	1	252	01OCT01	30SEP02	103
TT27610JB1	1	756	01OCT02	29SEP05	103
TT27610JC	1	526	03MAR03*	31MAR05	0
TT27610JD	1	166	01APR05	23NOV05	0
TT27610JE	1	213	28NOV05	29SEP06	0
TT27610JF	1	0		29SEP06	0
270.660 Determine Process Improvement Breakthroughs					
TT27660A	1	251	02OCT00A	28SEP01	0
TT27660A1	1	103	01OCT01*	28FEB02	0
TT27660A2	1	0		28FEB02	0
TT27660A3	1	149	01MAR02	30SEP02	0
TT27660A5	1	252	01OCT02*	30SEP03	0
TT27660A6	1	253	01OCT03*	30SEP04	0
TT27660A7	1	252	01OCT04*	30SEP05	0
TT27660A8	1	251	03OCT05*	29SEP06	0



Start Date	01OCT00
Finish Date	31DEC49
Data Date	23APR01
Run Date	21MAY01 14:00

TPA1

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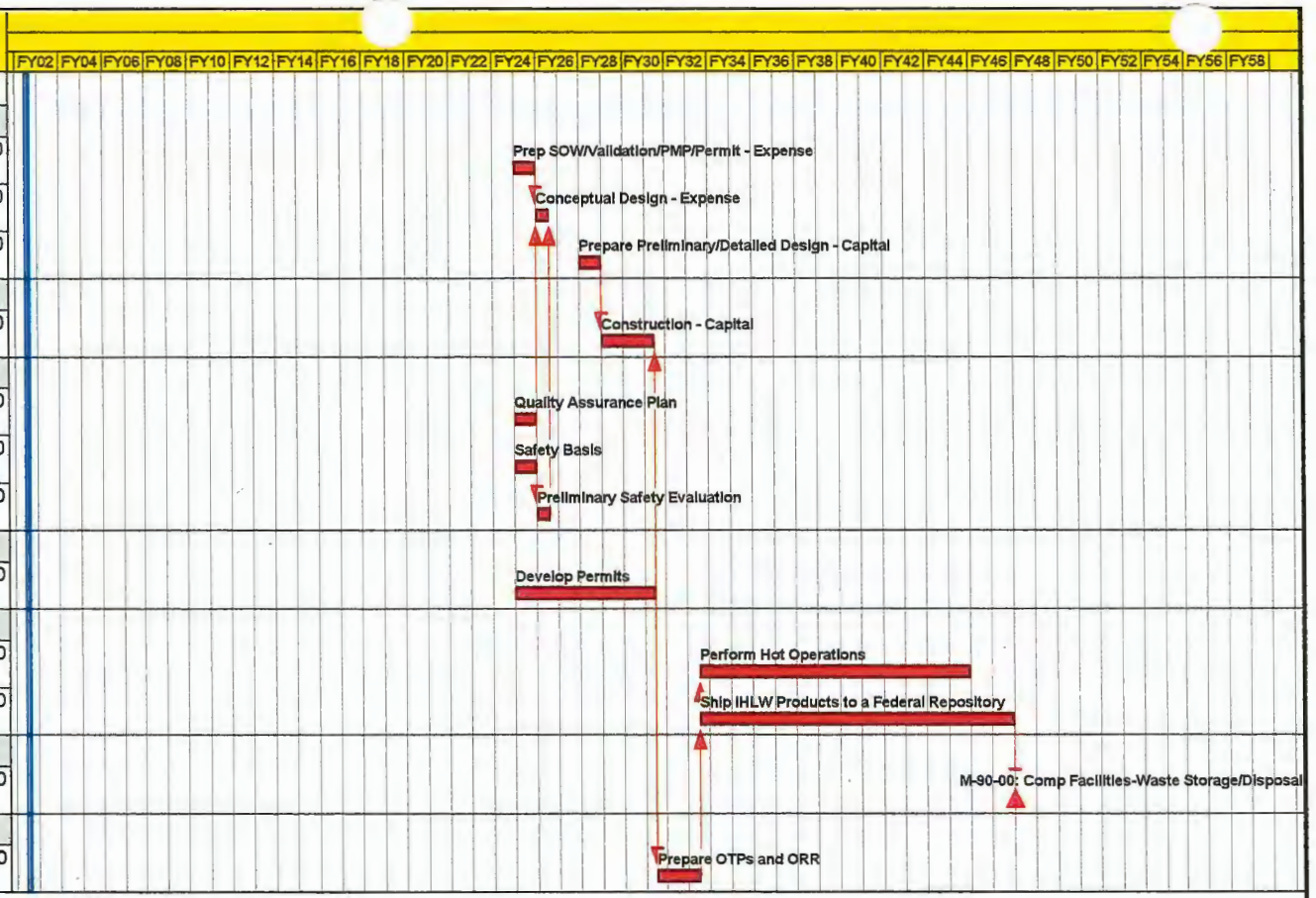
CH2M Hill Hanford Group
Performance Measeurement Baseline -April 2001 Status
Critical Path to M-45-00-B

Activity ID	ID	Orig Dur	Early Start	Early Finish	Total Float
F1 Immobilized Waste HLW Phase 1					
570.060 W-QQQ Engineering					
TH57060A1	1	252	02OCT23	30SEP24	0
TH57060A2	1	167	01OCT24	30MAY25	0
TH57060A3	1	252	01OCT26	30SEP27	0
570.070 W-QQQ Construction					
TH57070A1	1	627	01OCT27	29MAR30	0
570.090 W-QQQ Authorization Basis					
TH57090A1	1	252	02OCT23	30SEP24	0
TH57090A2	1	252	02OCT23	30SEP24	0
TH57090A3	1	167	01OCT24	30MAY25	0
570.100 W-QQQ Environmental Permits					
TH57100A1	1	1,635	02OCT23*	29MAR30	0
570.120 Operate Shipping Facility					
TH57120A1	1	3,151	01APR32	30SEP44	0
TH57120A2	1	3,653	01APR32	28SEP46	0
570.120B M-90-00: Comp Facilities-Waste Storage/Disposal					
TH57120A2A	1	0		28SEP46	0
570.130 Startup and Test Shipping Facility					
TH57130A1	1	505	01APR30	31MAR32	0



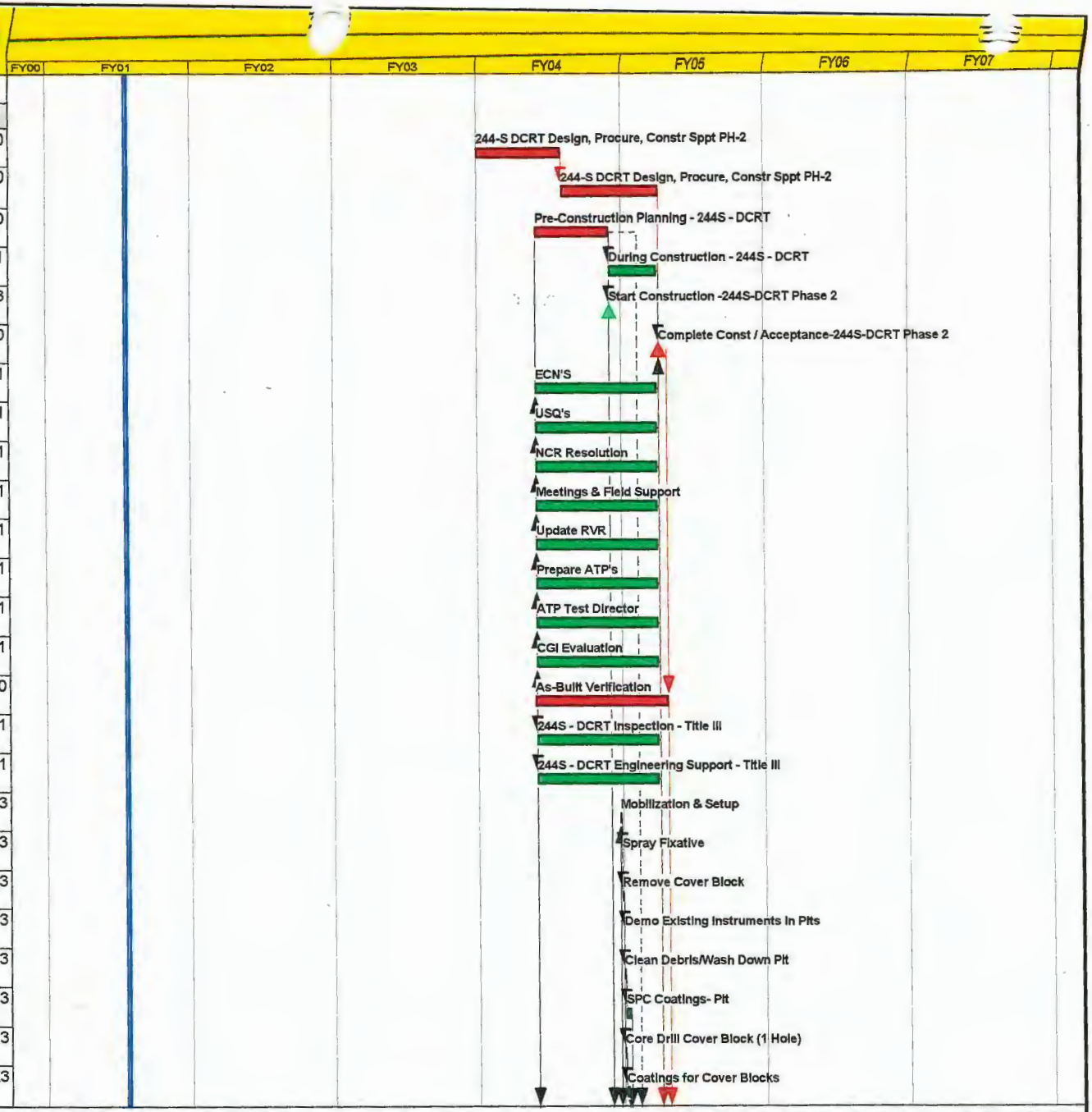
Start Date	01OCT00
Finish Date	31DEC49
Data Date	23APR01
Run Date	21MAY01 14:47

TPA4

Sheet 1 of 1

CH2M Hill Hanford Group
Performance Measurement Baseline -April 2001 Status
Critical Path to M-90-00

Activity ID	ID	Orig Dur	Early Start	Early Finish	Total Float
A1B LAW Ph 1 Tank 1 - AP-101 Sht 2					
250.D45 Construct 244-S DCRT Compliance Upgrades					
SW25D45100	1	149	01OCT03*	04MAY04	0
SW25D45101	1	167	05MAY04	04JAN05	0
SW3C5G2A	1	130	01MAR04*	31AUG04	0
SW3C5G4A	1	83	01SEP04	31DEC04	1
SW5H1203	1	0	01SEP04		23
SW5H1204	1	0		04JAN05	0
SW5H2111	1	213	01MAR04	31DEC04	1
SW5H2112	1	213	01MAR04	31DEC04	1
SW5H2113	1	213	01MAR04	31DEC04	1
SW5H2114	1	213	01MAR04	31DEC04	1
SW5H2115	1	213	01MAR04	31DEC04	1
SW5H2116	1	213	01MAR04	31DEC04	1
SW5H2117	1	213	01MAR04	31DEC04	1
SW5H2118	1	213	01MAR04	31DEC04	1
SW5H2119	1	231	26FEB04	25JAN05	0
SW5H2121	1	213	01MAR04	31DEC04	1
SW5H2131	1	213	01MAR04	31DEC04	1
SW5H4B001	1	2	24SEP04*	27SEP04	23
SW5H4B002	1	2	28SEP04	29SEP04	23
SW5H4B003	1	1	30SEP04	30SEP04	23
SW5H4B004	1	1	01OCT04	01OCT04	23
SW5H4B005	1	2	04OCT04	05OCT04	23
SW5H4B006	1	10	06OCT04	19OCT04	23
SW5H4B007	1	2	01OCT04	04OCT04	23
SW5H4B008	1	8	05OCT04	14OCT04	23



Start Date	01OCT00
Finish Date	31DEC49
Data Date	23APR01
Run Date	21MAY01 14:36

TPA3

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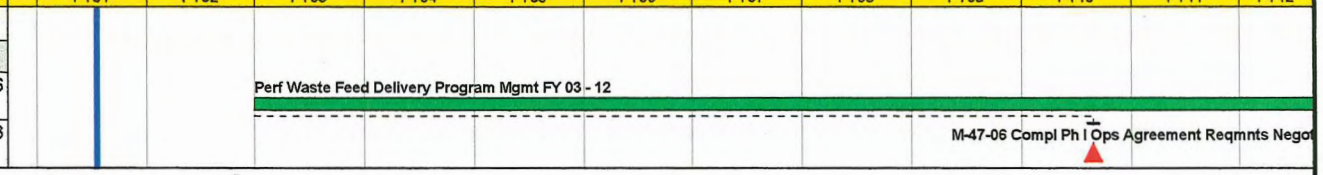
CH2M Hill Hanford Group
Performance Measeurement Baseline -April 2001 Status
Critical Path to M-43-00

Activity ID	ID	Orig Dur	Early Start	Early Finish	Total Float
R1 WFD Retrieval Mgmt					
150.704 Manage Waste Feed Delivery Activities					
TD15704A4	1	2,519	01OCT02	28SEP12	566
TD15704A4M	2	0	28MAY10*		-1,973



Start Date	01OCT00
Finish Date	31DEC49
Data Date	23APR01
Run Date	21MAY01 14:25

TPA2

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CH2M Hill Hanford Group
Performance Measeurement Baseline -April 2001 Status
Critical Path to M-47-06