

Meeting Minutes Transmittal/Approval
Unit Managers Meeting: Double Shell Tanks & Single-Shell Tanks
2704HV/Room G227
200 East Area Hanford Site, Washington

January 11, 1995

Appvl: Wendell R. Wrzesinski Date: 4/12/95
Wendell R. Wrzesinski, SST Unit Manager, DOE-RL

Appvl: Scott E. McKinney Date: 4/11/95
Scott McKinney, SST Unit Manager,
WA Department of Ecology

Appvl: Kevin J. Oates Date: 4/11/95
Kevin J. Oates, SST Unit Manager, EPA Region X

Appvl: Casey O. Ruud Date: 4/11/95
Casey O. Ruud, DST Unit Manager, DOE-RL

Appvl: Laura J. Cusack Date: 4/11/95
Laura J. Cusack, DST Unit Manager,
WA Department of Ecology

Appvl: Mardine P. Campbell Date: 4/6/95
Mardine P. Campbell, WMC, Contractor
Representative

Meeting Minutes are attached. Minutes are comprised of the following:

- Attachment #1, Meeting Summary/Summary of Action Items & Agreements
- Attachment #2, Agenda for Meeting
- Attachment #3, Attendance List

- Handout 1 - Provide Additional Double-Shell Tank Capacity
- Handout 2 - Replacement of Cross-Site Transfer System
- Handout 3 - Complete Closure of All Single Shell Tank Farms
- Handout 4 - M-45-07 FFACO Change Control Form
- Handout 5 - Single-Shell Tanks Interim Stabilization/Isolation
- Handout 6 - Single-Shell Tanks Interim Stabilization/Isolation Annual Review and Affirmation of Milestones
- Handout 7 - Saltwell Stabilization Pumping
- Handout 8 - Waste Tank Safety Program TPA Milestone Update



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DOUBLE SHELL TANKS / SINGLE SHELL TANKS
UNIT MANAGER MEETING

MEETING SUMMARY/SUMMARY OF ACTION ITEMS AND AGREEMENTS

January 11, 1994

DST Permitting Update (Tom Snider):

Tom Snider briefly summarized the status of the Double Shell Tank RCRA Part B Permit Application. The schedule for incorporating the Double Shell Tank System into the Hanford facility wide RCRA Permit has been adjusted to the "Mod E" Schedule. This will result in an effective need date of July 1, 1999, for completion of the Double Shell Tank (DST) Permit. ~~WHC has reached agreement with the Washington Department of Ecology (Ecology) on the overall schedule.~~ WHC will meet with Ecology next month to review the schedule for the separate chapters of the application. A meeting to discuss the new waste acceptance requirements for the DST System will be held tomorrow, January 12, 1995. *JS*

M-42 Multi-Function Waste Tanks (Glenn Konzek) [Handout 1]:

Glenn Konzek presented status on Milestone M-42-00, the Multi-Function Waste Tank Facility (MWTF). Delays to the schedule are developing due to delays with the Safe Interim Storage Environmental Impact Statement (SIS EIS). The SIS EIS was initiated to support safe storage of wastes in 101-SY and other Watch List tanks. The MWTF project was originally initiated due to the urgency of the 101-SY problem and the waste volume projections. Since that time, many of the concerns with 101-SY have been alleviated with the installation of the mixing pump and other controls. Because of this, the requirement for additional waste storage volume and the need for the MWTF project is under review. The EIS for the MWTF is at a standstill until the DOE determines if the MWTF is needed, however, the transfer line aspect is believed crucial and must proceed.

Planned actions for the coming months include continued Title II design. Also revising the project plan and submitting a baseline change proposal based upon Title I approvals, additional NEPA scope and systems engineering integration. Work is also continuing on the 10 technical tasks supporting the path forward as described in last months minutes.

Proposed budget cuts and additional technical evaluations, including waste volume projections, will impact the schedule. The consequences of these delays are currently under evaluation. Work was completed on schedule for technical and editorial changes required for submittal of the revised Preliminary Safety Analysis Report (PSAR). This was submitted to RL on December 20, 1994, with the exception of Chapter 9 which will be submitted in mid-January.

M-43 Tank Farms Upgrades (Gae Neath) [Handout 2]:

Gae Neath presented the update on TPA Milestone M-43-07, Replacement of the Cross-Site Transfer System. Recent accomplishments consist of approval of methods to accelerate the schedule. These methods include: initiating procurement of long lead items prior to NEPA finalization; approval of Key Decision 3, start of construction, based on a phased design; managing the project as a Line Item rather than as a Major Project to eliminate Key Decisions (KDs); initiating the Independent Cost Estimate (ICE) based on preliminary design rather than design completion; implement parallel WHC and RL in-process reviews; and formulate an integrated task team to expedite decisions and minimize delays. Additionally, the Design Requirements Document is initiated.

Planned actions for the coming months are to continue Title II design and obtain the Long Lead Procurement Waiver. Approval of the procurement waiver is now critical to the schedule. Once the waiver is approved, award of Long Lead Procurement contracts for design can be awarded. Also, the NEPA Path Forward is expected to be finalized this month.

Current concerns are the approximately three month delay due to integration with the MWTF project. Resolution of the pump and diversion box configuration and pipe re-routing has delayed the design schedule. Because of this, TPA Milestone M-43-07-T01, Design Completion, will be missed. Schedule delays of the Long Lead Procurement Waiver and the Environmental Impact Statement could impact additional TPA milestones. The state must be notified of delays if milestones will be more than 60 days late.

M-45 Single Shell Tank Retrieval/Closure (Wendell Wrzesinski) [Handouts 3,4]:

A video copy of milestone accomplishments for SST Retrieval Technology was given to Ecology representative Jack Donnelly.

The evaluation of sub-surface barrier feasibility was completed and resulted in a document titled "Feasibility Study of Tank Leakage Mitigation Using Subsurface Barriers" WHC-SD-WM-ES-300. The study included worker impacts and large leakage scenarios. A meeting with Ecology to discuss feasibility is tentatively planned for the week of January 16th in Lacey. The intent is to come to agreement with the state on recommendations by the end of the month.

The status report for the sluicing retrieval of waste from Tank C-106 (M-45-03A) was distributed. This project provides the systems, facility, and utility upgrades needed to retrieve the high heat waste from the tank.

The internal draft of the closure work plan is under WHC review. It is on schedule for submittal to the state in May, 1995.

The thirty percent design completion documents for the Tank C-106 Sluicing Project were provided to the Ecology offices in Lacey. The ERT Test Report is scheduled to be completed by the Lawrence Livermore National Laboratory in February 1995.

M-41 Interim Stabilization (Tom Rainey, Andy Hon, Randy Ni) [Handouts 5,6,7]:

The high level liquid waste cask will be delivered in January 1996. A draft change request for M-41-03B has been completed to formalize that date.

Milestone M-41-02-T03, relating to the preparation of a detailed procedure for emergency pumping, is ahead of schedule.

Milestone M-41-07 to complete safety studies and analysis on interim stabilization of remaining Watch List Tanks is complete.

A draft TPA Change Request, M-41-94-02, was discussed. M-41-94-02 proposes to change M-41-08, Start Interim Stabilization of one Non-Watch List tank in 241-U Tank Farm by changing the start date from July 1995 to July 1996. The target date for completion of interim stabilization would also be extended by one year. Further M-41-11, relating to the four flammable gas Watch List Tanks in U far, would have a revised start date of July 1996 (from April 30, 1996). The completion date would be changed from May 1997 to August 1997. Milestone M-41-12, pumping of the BX and BY farms would be accelerated from the April 1997 to August, 1995.

Randy Ni presented the current status for Tank Farm Saltwell Stabilization. The target milestone for interim stabilization for five single shell tanks was December 1994. This milestone was missed. The current estimate for completion of these tanks is November 1995. The factors contributing to the delay include: higher conduct of operations standards, material condition and equipment failures, tank safety issues, environmental constraints, and an increase in the estimated tank liquid volumes. Additional explanation is described in the accompanying handout. Improvements are now in place within the stabilization process to increase pumping efficiencies.

M-40 SAFETY (G. Dukelow) [Handout #8]:

There was no formal presentation for M-40 Safety, however, a status of the milestones was presented for inclusion in the minutes.

M-44 CHARACTERIZATION:

There was no presentation for M-44.

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DST/SST Unit Managers Meeting
January 11, 1995

AGENDA

- 10:00-10:15 Permitting Update
- 10:15-10:45 M-42 Multi-Function Waste Tanks
- 10:45-11:15 M-43 Tank Farms Upgrades
- 11:15-12:15 M-45 SST Retrieval/Closure
- Lunch
- 1:00-2:30 M-41 Interim Stabilization
- Break
- 2:45-4:30 Open Discussion with EPA and Ecology

NOTE: There will be no Safety or Characterization presentations at this meeting. These activities will be statused in February.

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Double-Shell Tanks Unit Manager Meeting

1-11-95

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NameOrganizationRoom

Lisa Garner	TURS / WHC	R1-52
Jack Bonnichsen	Products Office / WHC	HA-06
MaryAnn McLaughlin	TPAI / WHC	B2-35
HANK BENZEL	RCRA PERMITTING	
Steve Lijek	GSSC / TOP	S7-73
Gerry Hendricks	GSSC	B1-42
Luis Soler	Dames + Moore / GSSC	B1-42
GAE M. NEATH	DOE RL	S7-52
GRETA DAVIS	ECOLOGY	B5-18
DAVE NYLANDER	Dames + Moore / GSSC	B3-77
Glenn Kanzer	DOE - RL	S7-52
TOM SNIDER	TURS / WHC	R1-52
LINDA BANKS	DOE - RL	S7-52
Elvan Katwijk	WHC	B4-52
DENNIS REWINKEL	GSSC	S7-72
John Harris	WHC	S6-12
WENDELL WAZESINSKI	DOE - RL	?
Kevin Oates	OP. A	?
PARK KLOBE	DOE - RL	A5-15
MARC STEVENSON	WHC	B2-35
Jon Cruise	WHC	L5-63
JERRY BAZINET	WHC	S4-53
GARY MEYER	WHC	S4-54
Alisa D Huckaby	Ecology	

NAME

ORG

M/SN

Tom Rainey

WHC/TWR Program

R2-54

Sandy Ni

WHC/ETPO

GARY DUKELOW

WHC/WST TR SAFETY

S7-15

DON ENGELMAN

WHC/TWR S

R2-54

Andy Hor

RL/TOP

S7-54

~~Wendy~~

Ecology

T1A22

**PROVIDE ADDITIONAL DOUBLE-SHELL
TANK CAPACITY**

MILESTONE M-42-00

**G. R. KONZEK
RL, MULTI-FUNCTION WASTE TANK FACILITY
PROJECT OFFICE**

January 11, 1995

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Milestone Descriptions

- **M-42-00** Provide additional double-shell tank capacity. Initiate "Hot" Operations of the MWTF 200E Area tanks. 12/98 (slipping)
- **M-42-01** Initiate "Hot" Operations of the MWTF 200W Area tanks. 02/98 (slipping)
- **M-42-01-T1** Initiate Detail Design of the MWTF 200W Area tanks. 03/94 (A 5/94)
- **M-42-01-T2** Initiate construction of the MWTF 200W Area tanks. 09/94 (slipping)

TPA Milestone M-42-00

Provide additional double-shell tank capacity

Milestone Descriptions (continued)

- **M-42-02** **Complete construction of the MWTF 200E Area tanks. 09/98 (slipping)**
- **M-42-02-T1** **Initiate construction of the MWTF 200E Area tanks. 02/95 (slipping)**
- **M-42-02-T2** **Complete the Detailed Design of MWTF 200E Area tanks. 01/96 (slipping)**

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TPA Milestone M-42-00

Provide additional double-shell tank capacity

Planned Actions (Next six months [M-42])

- **Continue National Environment Policy Act (NEPA) Documentation (MWTF portion on hold)**
- **Continue Title II Design**
- **Revise Project Plan and submit Baseline Change Proposal based upon Title I approvals, additional NEPA scope, Systems Engineering integration**
- **Continue to work on the 10 technical tasks supporting the path forward**

Accomplishments

- Proposed budget cuts and further technical evaluations (waste volume projections) will impact schedule baselines. Risks and consequences of these delays are being evaluated and furnished to Management.
- Approval was received from the U.S. Environmental Protection Agency for the National Emission Standard for Hazardous Air Pollutants Request for Approval to Construct the MWTF.

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TPA Milestone M-42-00

Provide additional double-shell tank capacity

Accomplishments (continued)

- Work continued on schedule with technical and editorial changes required for submittal of the revised Preliminary Safety Analysis Report (PSAR) to RL by December 20, 1994, with the exception of Chapter 9 which will be submitted in mid-January.
- "Issue for approval" MWTF Title II Design Packages completed. (i.e., pkgs 10, 25, 40, & 60E)

Special Topics

- **Concerns**

- **EIS activities have slipped causing impacts to the M-42 TPA Milestone series.**
- **Implementation of the Secretary's commitment to the DNFSB to perform Critical Design Review and integrate with System Engineering, will slip milestones M-42-00, M-42-02, and related target milestones.**
- **Delegation of authority for local approval of Key Decisions is progressing slow (is making it more challenging MWTF's KD 3A) draft procedures in review.**

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TPA Milestone M-42-00

Provide additional double-shell tank capacity

Cost/Schedule Assessment (in thousands)

	Current Period Dec. 1 - Dec. 25	Percent	Cumulative to Date	Percent
Budget Cost Work Scheduled (BCWS)	4,852.60		55,081.10	
Budget Cost Work Performed (BCWP)	1,978.80		44,367.30	
Actual Cost Work Performed (ACWP)	2,237.2		44,447.10	
Variances:				
Schedule	(2,873.80)	-59%	(10,713.80)	-19%
Cost	(258.40)	-12%	(79.89)	0%

As of end of December 25, 1994

TPA Milestone M-42-00

Provide additional double-shell tank capacity

Variance Explanation:

Cost

Current period cost variance is the result of costs being incurred for work that was not planned.

Schedule

Current period and cumulative schedule variance is due to delays in not finishing the EIS, new work scope related to integration with TWRS SE work and not initiating the KD 3 process to enable the start of construction.

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REPLACEMENT OF CROSS-SITE TRANSFER SYSTEM

PROJECT 93-D-182 (W-058)

**GAE M. NEATH
RL, TANK WASTE PROJECTS**

January 11, 1995

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TPA Milestone M-43-07
Replacement of the Cross-Site Transfer System

Milestone Description

- **M-43-07-T01** **Complete Definitive Design, August 1995.**
- **M-43-07A** **Start Construction, November 1995.**
- **M-43-07B** **Complete Construction, August 1997.**
- **M-43-07C** **System Operational, February 1998.**

Accomplishments (Last three months)

- **Evaluated schedule optimization options, November 1994, and issued RL letter documenting acceleration actions, December 1994, which includes:**

- **Initiate procurement before Key Decision (KD) 3 based on a NEPA waiver and approve KD 3 based on a phased design.**
- **Manage as a Line Item versus a Major Project to eliminate KDs.**
- **Initiate the Independent Cost Estimate (ICE) based on preliminary design and eliminate 60% ICE.**
- **Implement WHC and RL in-process reviews to facilitate the final design review.**
- **Minimize programmatic delays by formulating an integrated task team.**

START OF COST.

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TPA Milestone M-43-07

Replacement of the Cross-Site Transfer System

Accomplishments (Last three months) - Continued

- **Held briefing with Defense Nuclear Facility Safety Board staff, December 1994.**

TPA Milestone M-43-07
Replacement of the Cross-Site Transfer System

Planned Actions (Next six months)

- **Continue Title II Design**
- **Obtain Long Lead Procurement Waiver, January 1995.**
- **Award Long Lead Procurement (Design Only) Contracts, January 1995.**
- **Finalize NEPA path forward, January 1995.**

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TPA Milestone M-43-07

Replacement of the Cross-Site Transfer System

Special Topics

- **Concerns**

Resolution of the integration issues (pump configuration, diversion box configuration, and pipe re-routing) has delayed the design schedule. TPA milestone M-43-07-T01, Design Completion, will be missed.

Schedule delays of the Long Lead Procurement Waiver and the Environmental Impact Statement could impact TPA Milestones. Project alternatives are being evaluated.

TPA Milestone M-43-07
Replacement of the Cross-Site Transfer System

Special Topics (Continued)

● **Cost/Schedule Assessment**

Note: Dollars in Thousands.	Current Period December 1994	Cumulative to Date	At Completion
Budget Cost Work Performed (BCWP)	469	4176	52700.0
Budget Cost Work Scheduled (BCWS)	317	5229	52700.0
Actual Cost Work Performed (ACWP)	272	4316	52700.0
Variances:			
Costs	152	-1053	0.0
Schedule	197	-140	0.0

Note: The cost and schedule variance is attributed to inefficiencies with the projects integration effort.

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

W.R. Wrzesinski, DOE-RL

January 11, 1995

- 1) M-45-01 Develop SST Retrieval Technology (September 1994)
 - Copy of video illustrating milestone accomplishment.
- 2) M-45-07A Complete Evaluation of Sub-Surface Barrier Feasibility (September 1994)
 - Updated feasibility study including worker impacts and large leakage scenarios.
 - Meeting tentatively planned for week of January 16 in Lacy.
 - TPA compliance change request draft.
 - Letter from State addressing TWRS program direction in both surface and subsurface barriers.
- 3) M-45-03A Initiate Sluicing Retrieval of C-106 (October 1997)
 - Project performance through November (MRM Report).
 - Level 0 Schedule
- 4) Closure Work Plan
 - Internal draft undergoing WHC review, State submittal on schedule for May 1995.
- 5) State Requests From Prior Meeting/Discussions
 - C-106 Sluicing Project thirty percent design documents transmitted on December 22, 1994.
 - ERT Test Report to be complete by LLNL in February 1995.
 - Spray Ring Decontamination Factor, LLCE Workshop with January 12, 1995 closeout.
 - Retrieval sequence requirement for TWRS EIS.

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Change Number M-45-94-	Federal Facility Agreement and Consent Order Change Control Form <small>Do not use blue ink. Type or print using black ink.</small>	Date January 2, 1995																		
Originator Phone W. R. Wrzesinski/G. A. Meyer/M. W. Stevenson 376-6751/372-3683/376-9668																				
Class of Change <input type="checkbox"/> I - Signatories <input checked="" type="checkbox"/> II - Project Manager <input type="checkbox"/> III - Unit Manager																				
change Title Changes to M-45-07 Target & Interim Milestones from M-45-07B Completion																				
Description/Justification of Change The M-45-07B interim milestone requires Ecology, EPA and DOE to decide whether to proceed with a sub-surface barrier demonstration. The three parties have not agreed on a decision to proceed or not proceed with a sub-surface barrier demonstration. A new target (M-45-07-T05) is established for the three parties to determine the new date for M-45-07B. The date for the new target is July, 1995. This date will also potentially provide an added funding source since it more closely coincides with the 1996 new fiscal year funding and will allow time for any required public involvement to be factored into the new dates for the remaining series of M-45-07 milestones and targets. The change is based on paragraph 120E of the Hanford Federal Facility Agreement and Consent Order as a good cause from an event or series of events mutually agreed to by the Parties as constituting good cause. The new target is: M-45-07-T05: Ecology, EPA and DOE will determine the new date to decide on whether to proceed with a sub-surface barrier demonstration (M-45-07B). Dates will be established and any required milestones changes made for the remaining open M-45-07 series of interim milestones and targets (due date: July 1995). All of the other M-45-07 series of milestones and target that are open have dates changed to TBD. These interim milestones and targets are:																				
<table style="width:100%; border: none;"> <thead> <tr> <th style="text-align: left;"><u>Interim Milestone</u></th> <th style="text-align: left;"><u>Date</u></th> </tr> </thead> <tbody> <tr> <td>• M-45-07</td> <td>TBD</td> </tr> <tr> <td>• M-45-07B</td> <td>TBD</td> </tr> <tr> <td>• M-45-07C</td> <td>TBD</td> </tr> <tr> <th style="text-align: left;"><u>Target Date</u></th> <td></td> </tr> <tr> <td>• M-45-07-T01</td> <td>TBD</td> </tr> <tr> <td>• M-45-07-T02</td> <td>TBD</td> </tr> <tr> <td>• M-45-07-T03</td> <td>TBD</td> </tr> <tr> <td>• M-45-07-T04</td> <td>TBD</td> </tr> </tbody> </table>			<u>Interim Milestone</u>	<u>Date</u>	• M-45-07	TBD	• M-45-07B	TBD	• M-45-07C	TBD	<u>Target Date</u>		• M-45-07-T01	TBD	• M-45-07-T02	TBD	• M-45-07-T03	TBD	• M-45-07-T04	TBD
<u>Interim Milestone</u>	<u>Date</u>																			
• M-45-07	TBD																			
• M-45-07B	TBD																			
• M-45-07C	TBD																			
<u>Target Date</u>																				
• M-45-07-T01	TBD																			
• M-45-07-T02	TBD																			
• M-45-07-T03	TBD																			
• M-45-07-T04	TBD																			
Impact of Change No impact. The remaining M-45 milestones are not affected by this change.																				
Affected Documents Hanford Federal Facility Agreement and Consent Order Action Plan, Appendix D.																				
Approvals																				
_____ DOE	_____ Date	___ Approved ___ Disapproved																		
_____ EPA	_____ Date	___ Approved ___ Disapproved																		
_____ Ecology	_____ Date	___ Approved ___ Disapproved																		

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**Single-Shell Tanks
Interim Stabilization/Isolation**

**T. E. Rainey
Single-Shell Tank Unit Managers Meeting
January 11, 1995**

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NOVEMBER/DECEMBER, 1994

SST INTERIM STABILIZATION/ISOLATION

PUMPING STATUS

Emergency Pumping

- 241-T-111 pumped 1.5 K gal., total pumped 7.8 K gal. (transferred 3.0 K gal., total transferred 15.9 K gal. including flushes.)
- 241-BX-111 pumped 3.5 gal., total pumped 118.6 K gal.

Interim Stabilization

- 241-C-102 pumped 0 gal., total pumped 2.7 K gal.
- 241-C-107 pumped 1.3 gal., total pumped 2.1 K gal.
- 241-C-110 pumped 1.5 gal., total pumped 3.7 K gal.
- 241-BY-102 pumped 5.8 K gal., total pumped 29.4 K gal.
- 241-BY-109 pumped 1.8 K gal, total pumped 25.7 K gal.

ACCOMPLISHMENTS

- Completed negotiations with vendor on cost and schedule for HLLW cask. Cask to be delivered January, 1996. (M-41-03B)

- Completed preparation of detailed procedures for emergency pumping, currently in final review. (M-41-02-T03)

- Completed Milestone M-41-07.
Complete Safety Studies and Analysis On Interim Stabilization of Remaining Watch List Tanks and Provide the Report(s) to Ecology and EPA. These studies to include:
 - Ferrocyanide tanks
 - Hydrogen/flammable gas tanks
 - Organic tanks

If these studies recommend that a Watch List tank not be pumped, DOE shall submit to Ecology and EPA a justification report which contains the rationale for not pumping. The rationale will be presented on a tank-by-tank basis.

NOVEMBER/DECEMBER, 1994 SST INTERIM STABILIZATION/ISOLATION

ACCOMPLISHMENTS (Con't)

- **Results of Safety Study:**
 - **FeCN Watch List Tanks - safe for interim stabilization.**
 - **Flammable Gas Watch List Tanks - can safely be interim stabilized by following controls. Review and approval of safety analysis, stating that post-pumping condition will remain safe, is required.**
 - **Organic Watch List Tanks - can safely be interim stabilized, however sampling and analysis required on tank-by-tank basis to determine if post-pumping condition is expected to meet safety criteria.**

NOVEMBER/DECEMBER, 1994 SST INTERIM STABILIZATION/ISOLATION

CURRENT ACTIVITIES

Emergency pumping tank 241-T-111 (M-41-16A-T01)

Emergency pumping tank 241-BX-111

Pumping 241-BY-102 and 109 (M-41-01-T2)

Pumping 241-C-102, 107, and 110 (M-41-01-T2)

Continuing restoration of 244-U double-contained receiver tank
(M-41-02-T04)

Continuing procurement of HLLW Cask (M-41-03B)

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NOVEMBER/DECEMBER, 1994 SST INTERIM STABILIZATION/ISOLATION

CURRENT ACTIVITIES (Con't.)

Preparing to pump 7 Non-Watch List tanks in 241-S Farm. (M-41-09)

Proposing change request to delay milestones M-41-08 and M-41-13 to 1996 and accelerate milestone M-41-12 to 1995.

Switching resources from preparing to pump Non-Watch List and Organic Tanks in 241-U Farm (M-41-08 and M-41-13) to preparing to pump 4 FeCN tanks in 241-BX and 241-BY Farms (M-41-12)

Reviewing detailed procedures for emergency pumping. (M-41-02-T03)

Proposing change request to establish date for milestone M-41-03B as January, 1996.

Proposing change request to reschedule milestone M-41-01-T02.

DECEMBER, 1994

SST INTERIM STABILIZATION/ISOLATION

SPECIAL TOPICS

- Cost/Schedule Assessment

Note: Dollars in Thousands	Current Period December 1994	Cumulative to Date	At Completion
Budgeted Cost of Work Performed (BCWP)	\$ 898.5	\$2,740.5	
Budgeted Cost of Work Scheduled (BCWS)	\$1,110.6	\$2,915.4	\$11,551.4
Actual Cost of Work Performed (ACWP)	\$ 788.7	\$2,206.3	
Variances			
Schedule	\$ -212.2	\$ -175.0	
Cost	\$ + 109.8	\$ + 534.2	
Funding			\$10,362.6

- Cost Accounts 1N1E51, 1N1E52, 1N1E53, 1N1E54 and 1N1E55

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NOVEMBER/DECEMBER, 1994

SST INTERIM STABILIZATION/ISOLATION

ISSUES/CONCERNS

CORRECTIVE ACTION

Pumping 5 tanks delayed due to increased estimated volume, lower pumping rates, and failed equipment.

Determine revised schedule for completion of M-41-01-T02.

Pumping of tank 241-T-111 adding excessive flush water to tank farms.

Timer installed to allow pumping to continue at low rate.
(M-41-16A-T01)

Safety evaluations indicate additional sampling and analysis required prior to interim stabilization of Organic Watch List tanks.

Propose change to revise schedule to delay milestones M-41-08 and M-41-13, and accelerate M-41-12.

Tank 241-U-107 added to Flammable Gas Watch List. Approval to pump may not be available in 1995.

**Single-Shell Tanks
Interim Stabilization/Isolation**

**Annual Review and Affirmation
of
Milestones**

G. E. Bishop/A. Hon

January 11, 1995

9513339.1635

JANUARY, 1995

SST INTERIM STABILIZATION/ISOLATION

MILESTONE REVIEW

Tri-Party Agreement Milestone M-41-00 Complete Single-Shell Tank Interim Stabilization includes the following:

"Interim Milestones for start of pumping and target milestones for completion for each group of tanks will be reviewed and affirmed annually with Ecology and EPA."

JANUARY, 1995

SST INTERIM STABILIZATION/ISOLATION

CONCERNS WITH CURRENT SCHEDULE

- Organic Watch List Tank Concerns
 - Safety analysis not complete on effects following interim stabilization.
 - Strategy to obtain information from organic tanks to say safe to remove liquids.
 - Actions may not be complete in time to start pumping by July 1995.

9513339.1636

JANUARY, 1995

SST INTERIM STABILIZATION/ISOLATION

CONCERNS WITH CURRENT SCHEDULE (Con't.)

- **Tank 241-U-107 Added to Flammable Gas Watch List**
 - **Safety analyses not complete on stability of waste after interim stabilization.**
 - **ASA will provide justification that ignition of gasses incredible.**
 - **ASA may not be approved in time to pump by July 1995.**

JANUARY, 1995

SST INTERIM STABILIZATION/ISOLATION

PROPOSED CHANGE - TO RESCHEDULE THE FOLLOWING MILESTONES

<u>Milestone</u>	<u>Title</u>	<u>Current Date</u>	<u>Revised Date</u>
M-41-08	Start Interim Stabilization of 1 Non-Watch List Tank in 241-U Tank Farm	7/31/95	7/31/96
M-41-08-T01	Complete Interim Stabilization 1 Non-Watch List Tank in 241-U Tank Farm	3/31/96	3/31/97
M-41-11	Start Interim Stabilization of 4 Flammable Gas Watch List Tanks in 241-U Tank Farm	4/30/96	7/31/96
M-41-11-T01	Complete Interim Stabilization of 4 Flammable Gas Watch List Tanks in 241-U Tank Farm	5/31/97	8/31/97

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JANUARY, 1995

SST INTERIM STABILIZATION/ISOLATION

**PROPOSED CHANGE - TO RESCHEDULE THE FOLLOWING MILESTONES
(Con't.)**

<u>Milestone</u>	<u>Title</u>	<u>Current Date</u>	<u>Revised Date</u>
M-41-12	Start Interim Stabilization of 4 FECN Watch List Tanks in 241-BX/BY Tank Farms	4/30/97	7/31/95
M-41-12-T01	Complete Interim Stabilization of 4 FECN Watch List Tanks in 241-BX/BY Tank Farms	9/30/98	12/31/96
M-41-13	Start Interim Stabilization of 3 Organic Watch List Tanks in 241-U Tank Farm	7/31/95	7/31/96
M-41-13-T01	Complete Interim Stabilization of 3 Organic Watch List Tanks in 241-U Tank Farm	12/31/96	12/31/97

JANUARY, 1995

SST INTERIM STABILIZATION/ISOLATION

ADVANTAGES TO PROPOSED SCHEDULE

- **Environmental Risk Abatement**
 - Corrosion study estimated relative risk of tanks leaking.
 - BX-106 has highest risk compared to other tanks.
Total risk can be reduced 45% by pumping BX-106.

- **Efficiencies**
 - Currently pumping in BX and BY farms.
Utilities, instrumentation, 244-BX DCRT in operation.
 - Completion of Interim Stabilization of BX-106, BY-103, BY-105, and BY-106 will complete all of BX and BY farms.
 - Cost less to prepare to pump in BX and BY farms now.
 - Pump/instrument control skids will be available for U-Farm in 1996.
 - More drainable liquid is contained in "BX" and BY farm tanks, than in the 4 "U" farms tanks.

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JANUARY, 1995

SST INTERIM STABILIZATION/ISOLATION

ADVANTAGES TO PROPOSED SCHEDULE (Con't.)

- No impact to over-all interim stabilization program (M-41 milestone).
- Thus, overall, there should be some net savings by completing pumping all remaining tanks in the BX and BY farms, rather than waiting.
- Emergency pumping capabilities in the U-Farm will not be affected.
- This will reduce tank storage concerns:
 - Volume transferred into SY-102 will be reduced substantially in the short-term.
 - Pressure to actuate a cross-site transfer system, due to stabilization, will thereby be reduced.

Saltwell Stabilization Pumping

**Randy Ni
East Tank Farm Operations**

January 1995

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Saltwell Stabilization Pumping

Reference

- **Target Tri-Party Agreement Milestone M-41-01-T02, "Complete interim stabilization of five single-shell tanks," due date December 1994**

Issues

- **Target Tri-Party Agreement Milestone M-41-01-T02 will be exceeded**
- **Current estimates are for completion of saltwell pumping in November 1995**
- **Pumping efficiencies are down from 1992 values of 70 percent to present values of 30-40 percent**

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Factors in Late Achievement of Pumping Completion

- Higher Conduct of Operations standards
- Material condition and equipment failures
- Tank safety issues
- Environmental constraints
- Estimated tank volumes have increased

Higher Conduct of Operations

- **Craft, HPT, Operations mock-up training to upgrade radiological work practices (complete)**
- **OSR/OSD review (complete)**
- **Videos to validate integrity of jumper changes (in progress, three leaky jumpers identified)**
- **Material condition repairs and upgrades in both DST and SST farms have significantly impacted continued pumping operation**
 - **Leak Detector Elements**
 - **Flush valves replaced**
 - **Rigid jumper fabrication and installation**
 - **Replacement of chronically leaking flush/prime connections**
 - **Material upgrade factored into future schedules**

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Higher Conduct of Operations

Summary

- Implementation of higher Conduct of Operations standards has caused significant delays in stabilization pumping. Future delays will be less significant and are factored into future pumping schedules.
- Overall, the number of problems from stabilization pumping have significantly decreased
 - T-101 - WDOE identified seven violations of WAC
 - T-111 - zero violations noted

Material Condition and Equipment Failures

- BY-109 pump failure (repair complete)
- New backflow preventer, a new regulatory requirement, installed in 244-BX (complete)
- BY-109 pressure switch failure resulting in lower pump rates (repair complete)
- BY-109 pump seal failure (repair complete)
- Rigid jumper upgrade to 153-ER (complete)
- Exhauster repair CR Vault, 244-A lift station (new regulatory requirement) (complete)
- O2D pit nozzle leak (investigation and pursuit of repairs in progress)

The material condition of Tank Farms will continue to be a factor in achieving pumping schedules.

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Saltwell Stabilization Pumping

Tank Safety Issues

- **C-Farm vapor concerns**
- **BY-109 organic vapor concerns**
- **C-106 investigation**

The above tank safety issues affecting stabilization are sufficiently resolved to not impact future pumping.

Environmental Constraints

- Crane availability (resolved)
- T-111 emergency pumping (pumping in progress)
- C-106 special controls (resolved)
- Operator certification (complete)

Key constraint:

- Weather constraints (pursuing engineered enclosures)

Saltwell Stabilization Pumping

Increase in Ownership

Improved communications between the Stabilization group and Operations have resulted in increased Operations ownership and expected rising pumping efficiency values

- **Weekly meetings with RL**
- **Pumping efficiency trends**

Saltwell Stabilization Pumping

Pumping Performance

Future saltwell pumping performance is based on established pumping flow and efficiency rates to reflect both the ability to keep the saltwell pumps operational and the efficiency of the system to remove tank waste.

<u>Tank</u>	<u>Projected Complete Date</u>
BX-111	5/95
BY-102	7/95
BY-109	11/95
C-102	9/95
C-107	8/95
C-110	5/95

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Saltwell Stabilization Pumping

Summary

Stabilization pumping efficiencies will continue to increase. Although near-term stabilization goals will be missed, fundamental improvements have been made to the stabilization process.

TRI-PARTY AGREEMENT MILESTONES
WASTE TANK SAFETY PROGRAM

STATUS REPORT AS OF: 12/31/94

FY 1994 TPA milestones -- 9 of 9 scheduled (100%) were completed on or ahead of schedule.

FY 1995 TPA Milestones -- 5 scheduled; 2 are on schedule and 3 are ahead of schedule.

No.	Title	Due	Status	Remarks
M-40-01	Complete Tank 241-SY-101 Low Speed Mixer Pump Test. (Interim to SI-2g23 - 09/94)	03/94	Completed 03/17/94 ⊕	Completion of this TPA milestone was documented by WHC in a letter to RL dated March 17, 1994.
M-40-14	Close Ferrocyanide Unreviewed Safety Question. (SI-2s13 - 01/94)	03/94	Completed 03/01/94 ⊕	Completion of this TPA milestone was documented by WHC in a letter to RL dated March 28, 1994.
M-40-16	Complete Sampling and Safety Evaluation of Liquid Organic in Tank 241-C-103. (SI-2q15 - 03/94)	03/94	Completed 03/31/94 ●	Completion of this TPA milestone was documented by WHC in a letter to RL dated March 31, 1994.
M-40-17	Close Tank 241-C-103 Unreviewed Safety Question. (SI-2j16 - 03/94)	05/94	Completed 05/19/94 ⊕	Completion of this TPA milestone was documented by WHC in a letter to RL dated May 25, 1994.
M-40-11	Close the Unreviewed Safety Question for the Criticality Issue. (SI-2w17 - 03/94)	06/94	Completed 03/17/94 ⊕	Completion of this TPA milestone was documented by WHC in a letter to RL dated April 6, 1994.

Status: ⊕ Ahead of Schedule † Improving Schedule
 ● On Schedule ‡ Deteriorating Schedule
 ⊖ Behind Schedule

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No.	Title	Due	Status	Remarks
M-40-06	Complete Vapor Sampling Characterization of Tank 241-C-103 (Phase 2) (SI-2m18 - 06/94)	08/94	Completed 08/10/94 ⊕	Completion of this TPA milestone was documented by WHC in a letter to RL dated August 10, 1994.
M-40-13	Design and Fabricate a Spare Mixer Pump for Tank 241-SY-101.	09/94	Completed 07/27/94 ⊕	Completion of this TPA milestone was documented by WHC in a letter to RL dated September 22, 1994.
M-40-15	Install Gas Monitoring Equipment in the Remaining Five Potentially Flammable DSTs. (Interim to SI-2h36 - 04/95)	09/94	Completed 09/27/94 ●	Completion of this TPA milestone was documented by WHC in a letter to RL dated September 27, 1994.
M-40-02A	Develop Criteria for Upgrading Temperature Monitoring Capabilities in Ferrocyanide Tanks.	09/94	Completed 09/13/94 ⊕	Completion of this TPA milestone was documented by WHC in a letter to RL dated September 13, 1994.
M-40-02B	Install Two of Seven New Thermocouple Trees.	04/95	⊕	A new TC was installed in tank 107-T on 11/10/94. Preparations are being made to connect 2 previously installed TC trees to TMACS. 111-C TC tree will be installed after characterization is completed in February.

Status: ⊕ Ahead of Schedule ↑ Improving Schedule
 ● On Schedule ↓ Deteriorating Schedule
 ⊖ Behind Schedule

No.	Title	Due	Status	Remarks
M-40-04-T01	Reach Decision to Interim Stabilize Tank 241-C-103 With Floating Organic Layer In Place or Proceed With Removal of Floating Organic Layer.	04/95	●	TPA Change No. M-40-94-05 was approved on 10/12/94. Studies are underway to determine whether the organic layer can be left in place for interim stabilization or that it must be removed and either transferred to the DST system or disposed of before interim stabilization pumping can begin.
M-40-07	Commence Operation of a Vapor Treatment System in Tank 241-C-103. (Interim SI-2n19 - 06/94)	06/95	●	A final design for the vapor treatment system was completed and a decision made to fabricate the system on site. No procurement action is required and the milestone remains on schedule.
M-40-02	Upgrade Temperature Monitoring Capabilities in Ferrocyanide Tanks.	09/95	⊕	(See M-40-02B)
M-40-05	Complete Safety Alternative Test in High-Heat Tank 241-C-106. (SI-2x38 - 06/95)	09/95	⊕	The evaluation of an air-chiller as a contingency option is in progress and is expected to be completed by the end of May.
M-40-03	Perform Vapor Characterization for all Ferrocyanide Watch List Tanks. (SI-2o37 - 06/95)	11/95	⊕	Six of eleven ferrocyanide tanks scheduled for characterization in FY 1995 have been sampled.
M-40-08	Perform Vapor Characterization for all Organic Watch List Tanks. (SI-2o37 - 06/95)	11/95	●	On schedule. One of twelve organic tanks has been sampled in FY 1995.

Status: ⊕ Ahead of Schedule † Improving Schedule
 ● On Schedule ‡ Deteriorating Schedule
 ⊖ Behind Schedule

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No.	Title	Due	Status	Remarks
M-40-04-T02	Remove Organic Layer Directly to Double Shell Tank System.	7/96	●	(See M-40-04-T01) If the decision supports removal of the organic layer to the DST system then this target milestone will become operative. If not, it will be deleted.
M-40-04	Complete Removal of Floating Organic Layer from Tank 241-C-103.	12/96	●	(See M-40-04-T01) If the decision supports removal of the organic layer for disposal then this milestone will become operative. If not, it will be deleted.
M-40-10	Complete Vapor Space Monitoring of all Flammable Gas Generating Tanks.	01/97	⊕	Completed site installation design for T Tank Farm. Continuing installation design on U Tank Farms. Continuing site installation in S and SX Tank Farms. A and AX Tank Farms to be completed within 2 weeks.
M-40-09	Close all Unreviewed Safety Questions (USQ) for Double-Shell & Single-Shell Tanks.	09/98	⊕	One USQ (flammable gas tanks) is outstanding. The USQ closure recommendation was changed to include all of SY Farm without reference to topical reports. The associated letter has been transmitted to RL recommending closure of the SY Farm USQ. WHC requested action on the USQ closure no later than January 31, 1995.
M-40-12	Resolve Nuclear Criticality Safety Issue.	09/99	●	A new strategy is under development for resolving this safety issue.
M-40-00	Mitigate/Resolve Tank Safety Issues for High Priority Watch List Tanks.	09/01	●	

Status: ⊕ Ahead of Schedule ↑ Improving Schedule
 ● On Schedule ↓ Deteriorating Schedule
 ⊖ Behind Schedule