

START

9513335.0705

0040478³⁶

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

November 9, 1994

From/ Appvl: Wendell Wrzesinski Date: 1/25/95
Wendell Wrzesinski, SST Unit Manager, DOE-RL

Appvl: Scott E. McKinney Date: 2/17/95
Scott McKinney, SST Unit Manager,
WA Department of Ecology

Appvl: Dave Einar Date: 16 Feb 95
Dave Einar, SST Unit Manager, EPA Region X

Appvl: Lisa Garner Date: 1/24/95
Lisa Garner, WHC, 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 - Replacement of Cross-Site Transfer System
Handout 2 - Provide Additional Double-Shell Tank Capacity
Handout 3 - Vapor Program Update
Handout 4 - Tri-Part Agreement Milestones Waste Tank Safety Program
Handout 5 - Single-Shell Tanks Interim Stabilization/Isolation
Handout 6 - Potential Use of Repaired Buried Transfer Lines in S-Farm
Handout 7 - Completion of Interim Stabilization of Single-Shell Tanks
Handout 8 - Double and Single-Shell Tank Characterization



DOUBLE SHELL TANKS / SINGLE SHELL TANKS
UNIT MANAGERS MEETING

MEETING SUMMARY/SUMMARY OF ACTION ITEMS AND AGREEMENTS

November 9, 1994

DST Permitting Update (Chuck Mulkey)

Chuck Mulkey summarized the status of the Double Shell Tank RCRA Part B Permit Application. Chapter Three is currently being worked through. This is the Chapter regarding the Waste Analysis Plan (WAP). The workshop meeting on the WAP are currently suspended until January 25, 1995, while an interim status WAP is drafted based upon the effort of the meetings to date. This draft WAP will be used as a starting point for the continuation of the workshop meetings in January.

Lisa Garner suggested that the schedule for completion of the Permit Application be reviewed some time after the first of the year. A new schedule should be developed based upon current time estimates for completion and review of the remaining chapters of the application.

M-43 Tank Farms Upgrades (Gae Neath) [Handout #1]:

Gae Neath presented the update on TPA Milestone M-43-07, Replacement of the Cross-Site Transfer System. There are four primary project milestones: design completion, construction start, construction completion, and start of operations. The first project milestone, design completion, is schedule to be completed in August, 1995. Accomplishments over the last three months include approval of the Functional Design Criteria (FDC) in September and completion of the integration with the Multi-Function Waste Tank Facility (MWTF) Project.

Planned activities for the next six months include continued design work (approximately 15% complete). The procurement waiver for long lead items is still not received from DOE Headquarters. Kaiser Engineers is trying to optimize the design schedule by phasing it into three separate packages. This will allow completion of a package and start of construction on that package prior to completion of all design work.

Design completion milestone M-43-07-T01 (due August 1995) will be impacted. The piping package should be completed on time by August, 1995, but full completion of design for the tie-ins and diversion boxes may be in jeopardy.

Delays with the Safe Interim Storage Environmental Impact Statement (SIS EIS) for the Multi-function Waste Tank Facility (MWTF) could delay some of the construction milestones because Cross-Site Transfer System procurements are tied to the MWTF EIS Record of Decision (ROD). DOE orders are such that NEPA approval is required prior to awarding long lead procurement items.

The Cost/Schedule Assessment indicates that for cumulative to date the project is approximately 300 thousand dollars behind in cost variance and 1.3 million in schedule variance. Much of this is due to the integration of the project with the MWTF facility project.

Due to the responsibilities Norm Hepner from Ecology has regarding upgrades to the site, he will be invited to the future DST/SST UMMs for status on the Cross-Site Transfer System Project.

M-42 Multi-Function Waste Tanks (Glenn Konzek) [Handout #2]:

Glenn Konzek presented status on Milestone M-42-00, the Multi-Function Waste Tank Facility. Title II design continues for all six planned tanks; four in the 200 East area and two in the 200 West area. This design includes all support facilities and equipment. There is a slip in the schedule for start of the west area construction, Milestone M-42-01-T2. A letter to Ecology regarding this slip was sent September 2nd.

The project Habitat Mitigation Action Plan was solicited in advance to facilitate fast tracking of the schedule. The plan highlights some of the action alternatives to undertake to minimize environmental impacts to the site due to construction. Most of the impact is to the sage brush. There are five mitigation alternatives within the plan; the fifth is to replace an amount of vegetation at another location.

The Decontamination and Decommissioning (D&D) Trade Study is initiated. This is a Title II design deliverable that will address alternatives for waste tank closure. This study will likely become part of the TWRS EIS.

MWTF sponsored a specialized report, "Corrosion Control in the MWTF Vapor Zone". This report addressed possible pitting of the inner tank surface due to condensation within the tank having a different pH value than the waste itself. The most critical area is the interface of the surface of the waste and the condensate at the side of the tank. It is agreed to install a drip ring around the inside perimeter of the tank top. The purpose is to cause the condensation that collects at the top of the tank to drip back down into the waste material prior to reaching the sides of the tank.

Title II design deliverables were issued in September 1994. These include: the Primary Storage Tank Stress Evaluation Letter Report to support the design report tank specification; the Supplemental Design Requirements document used by Westinghouse to control the project baseline, and; the Tank Primary Ventilation Process Flow Diagram necessary to support the Clean Air Act permit submittal.

The position paper "Recommendations on Changing the Interfaces of Project W-236A and W-058" was approved by Westinghouse. The Cross-Site Transfer System project's diversion box 2 is now integrated with the MWTF's tank transfer pit.

The position paper "Need for Additional Waste Storage Capacity and Recommended Path Forward for Project W-236A Multi-Function Waste Tank Facility" is approved and should be issued as part of M-46-01A. The paper states that

there is now enough evidence to support two tanks in the West Area, that design on all six tanks should continue, and that construction on the four tanks in the East Area should not begin until major uncertainties are resolved.

Based upon recent value engineering and review of conservatism in the conceptual design phase, the estimated total project cost has been reduced by 15 million; from 435 down to 420 million.

The Clean Air Act permit applications are submitted to the State Department of Ecology and EPA. The applications submitted include all six tanks, however, construction of all six is not committed and fewer tanks can be built.

The Hanford Waste Vitrification Plant (HWVP) trailers and materials have been transferred over to the MWTF project. An estimated cost savings of one million dollars is expected.

The cost/schedule assessment indicates that the project currently is behind schedule and under budget. This is somewhat misleading because approximately 80% of the budget is for construction, and construction has not yet started. The cost/schedule assessment will not reflect status accurately until such time a new baseline is developed for the project.

M-40 SAFETY (J. Osborne/G. Wilson/S. Branch) [Handout #3, 4]: At present, TPA milestones M-40-03, M-40-06, and M-40-08 are on schedule. An aggressive schedule has been put in place to recover the delays in data reporting.

Jerry Osborne explained the Vapor Sampling System. George Wilson presented the milestone status report.

Alex Stone (Ecology) expressed concern about the tanks going on and off the Watch List but with no explanation to Ecology. He stated Ecology should be notified and keep informed why tanks go on and off the list. ~~He also indicated that Ecology is interested in establishing new categories within the Watch List.~~ SEM

M-41 INTERIM STABILIZATION (Guy Bishop/D. Engelman/T. Rainey) [Handouts #5, 6, 7]: T. Rainey stated the pumping effort. A failed transfer line has occurred in C Farm.

Scott McKinney asked about getting a good schematic which will show the transfer lines, DCRTs, etc. which he can use to understand reports.

T. Rainey explained that interim stabilization is considered complete when saltwell pumping of each tank is complete. Saltwell pumping is complete when as much liquid as practicable is removed to a double-shell tank system. This is defined as when the pump rate drops to 0.05 GPM and is sustained at that. At that point, <5000 GAL of supernatant will remain in the tank, and <50,000 GAL of interstitial liquid.

Scott McKinney stated that if you reach the point at which you think you are not getting anything back for your time spent and if you think you have got

40,000 gallons of drainable liquid, then I am not worried about the 0.05 GPM criteria. Pursue it to the point that you think it is worthwhile. To put in a gallon to get two out over a long period of time is not very good.

Milestone M-41-02-T02 has been completed.

Milestone M-41-07, safety studies and analysis on interim stabilization, requires more study. One completed study says that we should only pump organic or ferrocyanide tanks if there is a leak. A second study in process may not agree. The milestone will be completed on schedule.

Milestone M-41-11 and M-41-13 may need to be changed because of the flammable gas issue in Tank U-107. Rainey stated that they would like to transfer this tank into the other group of flammable gas tanks. G. Bishop of DOE presented an assessment of budget impacts to on-going TPA M-41 work. There are no impacts to the existing FY-95 work. However, proposed FY-96 funding MAY NOT be sufficient to support the existing TPA milestones.

ACTION: Ecology was questioned about the need to repair transfer lines. If a segment of a transfer line is repaired, does the entire line need to be excavated and brought to RCRA standards, i.e., double contained? S. McKinney accepted the action to respond to the question. This question is generic to all of M-41.

M-44 CHARACTERIZATION (John Clark) [Handout #8]:

There were no interim milestones due in October.

ACTION: George Stanton agreed to provide A. Stone (Ecology) with copies of the T-111 and BX 107 Characterization Plans.

M-45 RETRIEVAL (Wendell Wrzesinski) No Handout:

An informal briefing was given to Ecology regarding subsurface barriers.

DOUBLE SHELL TANKS / SINGLE SHELL TANKS
UNIT MANAGERS MEETING

November 9, 1994

AGENDA

10:15 - 10:30	DST Permitting Update (Brief Review)
10:30 - 11:00	M-43 Tank Farms Upgrades
11:00 - 11:30	M-42 Multi-Function Waste Tanks
11:30 - 12:00	M-40 Safety
12:00 - 12:45	Lunch
12:45 - 1:30	Interim Stabilization
1:30 - 2:00	M-44 Tank Characterization
2:00 - 2:15	Break
2:15 - 4:30	M-45 Retrieval - Subsurface Barriers

SST / OST UMM
November 8, 1994

NAME	Organization	Phone
Lisa Garner	WHC	373-1505
TOP/ENIDER	WHC	373-2984
Charlie Mulkey	WHC	373-5609
MARY ANN McLAUGHLIN	WHC/TPAI	376-4034
Casey Ruud	DOE/TOP	373-3478
Fenggang Ma	Ecology	736-3035
Luis Soler	James Moore/GSSC	946-3680
Aisa D. Huchaby	Ecology	736-3034
Glenn R. Koncz	DOE-RL	376-8399
Alex Stone	Ecology	736-3018
Michael Clime	WHC/E.S.	376-7957
GRAE M. NIRTH	DOE RL/TWP	376 7328
Scott McKinney	Ecology	(206) 407-7146
Christ Lemi	WHC	373 6640
Mardine Campbell	WHC	373-1131
JERRY OSBORNE	WAC/UTSP	373-5379
Stanley Brence	DOE-RL	376-9450
Russell Harwood	DOE-RL	376-2748
George Wilson	WHC	372-1130
PH - CHL	WHC	373-1449
LEWY BISHOP	DOE	509-372-1856
Don Engelman	WHC	373-3452
Tom Rainey	WHC	373-8531
Joe Harey	GSSC	373-4939
MARC Stalvensen	WHC-TPA	376-9668
Shirley Long	WHC	376-5418
George Stanton	WHC	373-5590
Jim Clark	DOE-RL	509-376-2246
Jim Lee	PNL/TDPO (SNL)	509-373-0599

m-40



REPLACEMENT OF CROSS-SITE TRANSFER SYSTEM

PROJECT 93-D-182 (W-058)

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

November 9, 1994

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.

9513335.0709

TPA Milestone M-43-07

Replacement of the Cross-Site Transfer System

Accomplishments (Last three months)

- **Approved Functional Design Criteria, Revision 2, September 1994.**
- **Completed Integration with the Multi-Function Waste Tank Facility, September 1994.**

GMN/TWP/November 9, 1994

Planned Actions (Next six months)

- **Continue Title II Design**
- **Obtain Long Lead Procurement Waiver, November 1994.**
- **Award Long Lead Procurement (Design Only) Contracts, December 1994.**
- **Evaluate potential schedule optimization, November 1994.**

Special Topics

- **Concerns**

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

Schedule delays of the Multi-Function Waste Tank Facility 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 September 1994	Cumulative to Date	At Completion
Budget Cost Work Performed (BCWP)	10.1	1744.3	47200.0
Budget Cost Work Scheduled (BCWS)	-1883.6	2811.5	47200.0
Actual Cost Work Performed (ACWP)	133.0	2027.4	47200.0
Variances:			
Costs	-122.8	-283.1	0.0
Schedule	1893.8	-1067.2	0.0

9513335.0711

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

Special Topics (Continued)

● **Cost/Schedule Assessment**

Note: Dollars in Thousands.	Current Period September 1994	Cumulative to Date	At Completion
Budget Cost Work Performed (BCWP)	80.5	3219.8	52700.0
Budget Cost Work Scheduled (BCWS)	-1783.3	4558.5	52700.0
Actual Cost Work Performed (ACWP)	174.4	3520.6	52700.0
Variances:			
Costs	-93.8	-300.9	0.0
Schedule	1863.9	-1338.7	0.0

GMN/TWP/November 9, 1994

**PROVIDE ADDITIONAL DOUBLE-SHELL
TANK CAPACITY**

MILESTONE M-42-00

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

November 9, 1994

9513335.0712

TPA Milestone M-42-00

Provide additional double-shell tank capacity

Milestone Descriptions

- **M-42-00** **Provide additional double-shell tank capacity. Initiate "Hot" Operations of the MWTF 200E Area tanks. 12/98**

- **M-42-01** **Initiate "Hot" Operations of the MWTF 200W Area tanks. 02/98**

- **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**

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**

- **M-42-02-T1** **Initiate construction of the MWTF 200E Area tanks. 02/95**

- **M-42-02-T2** **Complete the Detailed Design of MWTF 200E Area tanks. 01/96**

9513335.0713

TPA Milestone M-42-00

Provide additional double-shell tank capacity

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

- **Complete National Environment Policy Act (NEPA) Path Forward**
- **Continue Title II Design**
- **Revise Project Plan based upon Title I approvals, additional NEPA scope, Systems Engineering integration**

TPA Milestone M-42-00

Provide additional double-shell tank capacity

Accomplishments

- **Comments were provided to Dames and Moore on the Project Habitat Mitigation Report.**
- **The Decontamination/Decommissioning Trade Study to evaluate alternatives for waste tank closure at end of mission was initiated.**
- **The document, "Corrosion Control in the MWTF Vapor Zone" was issued by the Project Office.**

9513335.0714

Accomplishments (continued)

- **The following approved Title II Design Deliverables were issued in September 1994:**
 - **Primary Storage Tank Stress Evaluation Letter Report**
 - **Supplemental Design Requirements Document, Rev.1**
 - **Tank Primary Ventilation Process Flow Diagram Description Letter Report.**

- **The position paper "Recommendations on Changing the Interfaces of Project W-236A and W-058" was approved by Westinghouse.**

Accomplishments (continued)

- **The Position Paper "Need for Additional Waste Storage Capacity and Recommended Path Forward for Project W-236A Multi-Function Waste Tank Facility" was approved and issued for to the public on September 26, 1994.**
- **Rebaselining effort lowers the TPC from \$435M to \$420M.**

9513335.0715

Accomplishments (continued)

- **Clean Air Act permit applications have been submitted to the State of Washington for approval.**
 - **Radioactive Air Emissions**
 - **National Emissions Standard for Hazardous Air Pollutants**
 - **Toxic Air Pollutants**
- **Construction Package 10 completed by ICF KH.**
- **HWVP trailers transferred over to MWTF Project, resulting in approximately \$1M savings.**

TPA Milestone M-42-00

Provide additional double-shell tank capacity

Special Topics

- **Concerns**

- **EIS activities have slipped causing impacts to the TPA Milestone M-42-01-T2.**
- **Implementation of the DNFSB recommendation to perform Critical Design Review, as added scope for 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).**

9513335.0716

TPA Milestone M-42-00

Provide additional double-shell tank capacity

Cost/Schedule Assessment

	Current Period Oct. 1 - Oct. 31	Cumulative to Date
Budget Cost Work Performed (BCWS)	4,324.00	45,154.00
Budget Cost Work Scheduled (BCWP)	2,572.20	40,583.00
Actual Cost Work Performed (ACWP)	1,855.60	40,014.00
Variances:		
Schedule	(1,751.80)	(4,571.00)
Cost	716.60	569.00

As of end of October 31, 1994

TPA Milestone M-42-00

Provide additional double-shell tank capacity

Variance Explanation:

Cost

- ICF KH work performed more efficiently
- Some level of effort costs not applied, and others applied incorrectly

Schedule

- Title II Detailed Design: Behind due to the lack of manpower
- Failure to start Construction and Title III

9513335.0717

VAPOR PROGRAM UPDATE

**presented to
Unit Managers Meeting**

**by
J. W. (Jerry) Osborne, Manager
Tank Vapor Issue Resolution Program
Westinghouse Hanford Company
November 9, 1994**

VAPOR DISCLOSURES

- Tank 241-C-103 (Organic Watch List Tank):
370 ppm NH_3
 - Action: Focus Vapor Treatment System on NH_3
- Tanks 241-BY-107 and BY-108 (Ferrocyanide Watch List Tanks): 160K and 600K $\mu\text{g}/\text{m}^3$ TOC
 - Action: Resample Tanks and Safeguard as Organic Watch List Tanks
- Tank 241-U-106 (Organic Watch List Tank):
850 ppm NH_3
 - Action: Candidate for NH_3 Vapor Treatment System and Revised PPE

TANK VAPOR CHARACTERIZATION STATUS REPORT

Tank #	Watch List	Driver	Type of Sample	Sample Date	
BX-104		Vapor Screening	*	01/19/92	
BY-103	F	Vapor Screening	2	05/5/94	
		TPA SI	3	11/1/94	
BY-104	F	Vapor Screening	*	12/29/92	
		Vapor Screening	2	04/22/94	
		RMCS TPA SI	3	06/24/94	
BY-105	F	Vapor Screening	2	05/09/94	
		RMCS TPA SI	3	07/07/94	
BY-106	F	Vapor Screening	2	05/04/94	
		RMCS TPA SI	3	07/08/94	
BY-107	F	Vapor Screening	2	03/25/94	
		TPA SI	3	10/26/94	
BY-108	F	Vapor Screening	2	03/28/94	
		TPA SI	3	10/27/94	
BY-109	F	Vapor Screening	2	09/22/94	
BY-110	F	TPA SI	3	☞ 11/10/94	
BY-111	F	Vapor Screening	2	05/11/94	
		TPA SI	3	☞ 11/14/94	
BY-112	F	TPA SI	3	☞ 11/16/94	
C-101		Vapor Screening	2	07/01/94	
		SI	3	09/01/94	
C-102	O	SI	3	08/23/94	
C-103	O	Vapor Screening	*	3	08/11/92
		Vapor Screening	**	4/5	11/16/93
		TPA SI	2	6	12/17/93
		TPA SI	3	6B	01/28/94
		TPA SI	3	7A	04/08/94
		TPA SI	3	7B	05/25/94
C-104		RMCS SI	3	03/03/94	
C-105		RMCS SI	3	02/16/94	
C-106	HH	RMCS SI	3	02/15/94	
C-107		Vapor Screening	2	06/16/94	
			3	09/29/94	

TANK VAPOR CHARACTERIZATION STATUS REPORT

Tank #	Watch List	Driver	Type of Sample	Sample Date
C-108	F	Vapor Screening	**	07/23/93
		Vapor Screening	2	07/07/94
		TPA SI	3	08/05/94
C-109	F	Vapor Screening	2	06/23/94
		TPA SI	3	08/09/94
C-110		SI	3	8/24/94
C-111	F	Vapor Screening	**	08/12/93
		Vapor Screening	2	06/20/94
		TPA SI	3	09/13/94
C-112	F	Vapor Screening	2	06/24/94
		TPA SI	3	08/11/94
TX-118	F/O	Vapor Screening	**	07/28/93
		Vapor Screening	2	09/01/94
TY-101	F	Vapor Screening	2	08/04/94
TY-103	F	Vapor Screening	2	08/04/94
TY-104	F	Vapor Screening	2	08/05/94
U-106	O	Vapor Screening	2	08/25/94

SAMPLE TYPE:

- * Vapor samples taken downstream of tank primary HEPA filter utilizing vapor sampling cart.
- ** Vapor samples taken from in-tank, non-heated tubes utilizing vapor sampling cart (SUMMA only -- no NH₃).
- 1 Gas and vapor monitoring performed by IH technicians to evaluate the flammability and/or worker health conditions of a waste tank. This includes headspace monitoring by the IH technicians.
- 2 In situ gas and vapor sampling performed by FAS. This type of sampling is performed by lowering gas and vapor collection devices into the tank headspace, and requires a handcart of equipment.
- 3 Gas and vapor sampling performed by FAS personnel using the VSS. This involves the mobile vapor sampling laboratory, heated transfer lines, and usually the installation of a water-heated vapor sampling probe in the tank.
- ☛ Scheduled vapor sampling within next 30-day window.

**TRI-PARTY AGREEMENT MILESTONES
WASTE TANK SAFETY PROGRAM**

STATUS REPORT AS OF: 10/31/94

FY 1994 TPA milestones -- 9 of 9 scheduled (100%) were completed on or ahead of schedule.
 Fy 1995 TPA Milestones -- 5 scheduled; 4 are on schedule and 1 is 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

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	●	The riser designated for a new TC in tank 107-T had an acceptable sample taken and a TC is planned to be installed in early November.
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.

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

9513335.0720

No.	Title	Due	Status	Remarks
M-40-07	Commence Operation of a Vapor Treatment System in Tank 241-C-103. (Interim SI-2n19 - 06/94)	06/95	● ↓	The procurement spec is going to be 30 days late due to the need to resolve sizing issues between the contractors. If a standardized container can be used then this time can be easily made back up.
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 has begun 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	⊕	Two 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	⊕	Twelve organic tanks are scheduled for sampling in FY 1995.
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.

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

No.	Title	Due	Status	Remarks
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 S and SX Tank Farms. Continuing installation design in T and U Tank Farms. Continuing site installation in A and AX Tank Farm.
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 changes to the authorization basis for 101-SY were submitted to RL on 09/30/94.
M-40-12	Resolve Nuclear Criticality Safety Issue.	09/99	●	A Program Plan is being prepared for resolution of the 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

951335.0721

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

**T. E. Rainey
Single-Shell Tank Unit Managers Meeting**

November 9, 1994

SEPTEMBER/OCTOBER, 1994

SST INTERIM STABILIZATION/ISOLATION

ACCOMPLISHMENTS

Emergency Pumping

- 241-T-111 pumped 3.4 K gal., total pumped 12.6 K gal. (Almost half is flush water, removed from tank approximately 6.0 K gal.)
- 241-BX-111 pumped 0 gal., total pumped 115.1 K gal.
 - Video of tank taken, 10 K gal remaining to pump.

Interim Stabilization

- Milestone M-41-OT-T01 complete, Interim Stabilization of 3 tank started 9/27/94.
- 241-C-102 pumped 2.7 K gal., total pumped 2.7 K gal.
- 241-C-107 pumped 0.8 K gal., total pumped 0.8 K gal.

9513335.0722

SEPTEMBER/OCTOBER, 1994

SST INTERIM STABILIZATION/ISOLATION

ACCOMPLISHMENTS (Con't.)

- 241-C-110 pumped 2.2 K gal., total pumped 2.2 K gal.
- 241-BY-102 pumped 6.5 K gal., total pumped 25.2 K gal.
- 241-BY-109 pumped 4.6 K gal, total pumped 24.0 K gal.
- Milestone M-41-01-T02 completed 9/19/94, Overground transfer piping procured and appropriate equipment is mounted in the emergency pumping trailer. *pp. 50, 670*
- Video taken of tank 241-BX-110, < 3 K gal. supernate remain, pumping complete.
- Field work completed for restoration of 244-U Double-Contained receiver tank (DCRT), (M-41-02-T04).

OCTOBER, 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)

**Preparing safety study analysis on interim stabilization of remaining Watch
List tanks (M-41-07)**

9513335.0723

OCTOBER, 1994

SST INTERIM STABILIZATION/ISOLATION

CURRENT ACTIVITIES (Con't.)

Preparing to pump 7 Non-Watch List tanks in 241-S Farm (M-41-09-T1)

**Preparing to pump Non-Watch List and Organic Tanks in 241-U Farm
(M-41-08 and M-41-13)**

OCTOBER, 1994

SST INTERIM STABILIZATION/ISOLATION

ISSUES/CONCERNS

CORRECTIVE ACTION

Organic concerns in tanks 241-BY-107 and BY-108 delayed pumping of tank 241-BY-109 six weeks.

Vapor samples determined no organic issue with 241-BY-109. (Delay will cause pumping to be completed late and late completion of M-41-01-T02. A better estimated completion date will be provided in December.)

Leak in double-walled transfer line causing change in pumping route for C-Farm tanks.

Working around to minimize delays. (M-41-01-T02)

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

Review pumping procedures and value of continued pumping.

9513335.0724

OCTOBER, 1994

SST INTERIM STABILIZATION/ISOLATION

ISSUES/CONCERNS (Con't)

Preliminary safety evaluations indicate additional sampling and analysis required prior to interim stabilization of Organic and Flammable Gas Watch List tanks.

Tank 241-U-107 added to Flammable Gas Watch List.

After reevaluation, additional permitting required for 244-U.

CORRECTIVE ACTION (Con't)

Specific requirements being identified and impacts to be determined. Probably safe to pump organic tanks.

Approval to pump may not be available in 1995. Possibly move U-107 to milestone M-41-11 from M-41-13.

NOC approved by DOH and EPA. Milestone not in jeopardy.

**POTENTIAL USE OF REPAIRED
BURIED TRANSFER LINES
IN S-FARM**

D. B. Engelman

November 9, 1994

9513335.0725

Potential Use of Repaired Buried Transfer Lines

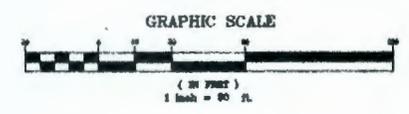
- **Planned overground transfer lines**
- **Corrosion investigation results**
- **Suggested alternative solution = use repaired underground lines**
- **Plans: attempt to repair at conduit interface**
- **Actions: seek regulator approval**

S-FARM HAS MULTIPLE FAILED TRANSFER LINES

- **Unable to reach S-106**
- **Unable to cross from A-B to C-D pits**
- **Overground lines planned as transfer route**

S-FARM OVERGROUND PIPING ROUTES

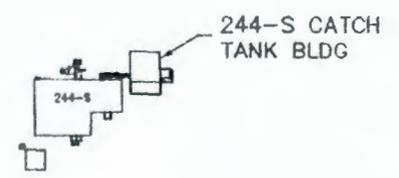
28 OCT. 1984



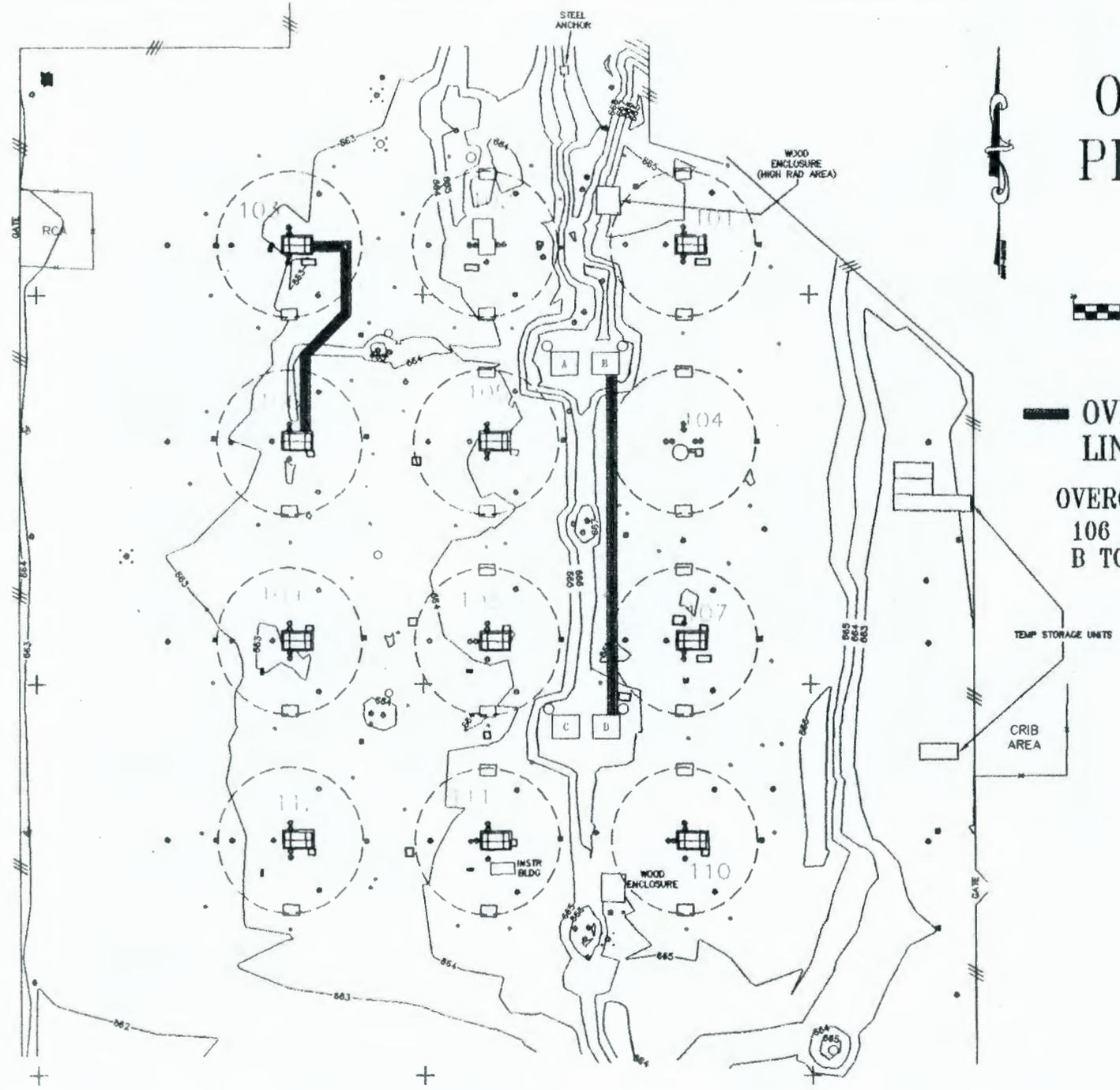
CONTOUR INTERVAL: 1 FT

**OVERGROUND TRANSFER
LINES WITH SHIELDING**

OVERGROUND PIPE LENGTHS
106 TO 103 120'
B TO D VALVE PIT 175'



244-S AREA LOCATION
FROM MAPPING 2/8/84



9513555.0727

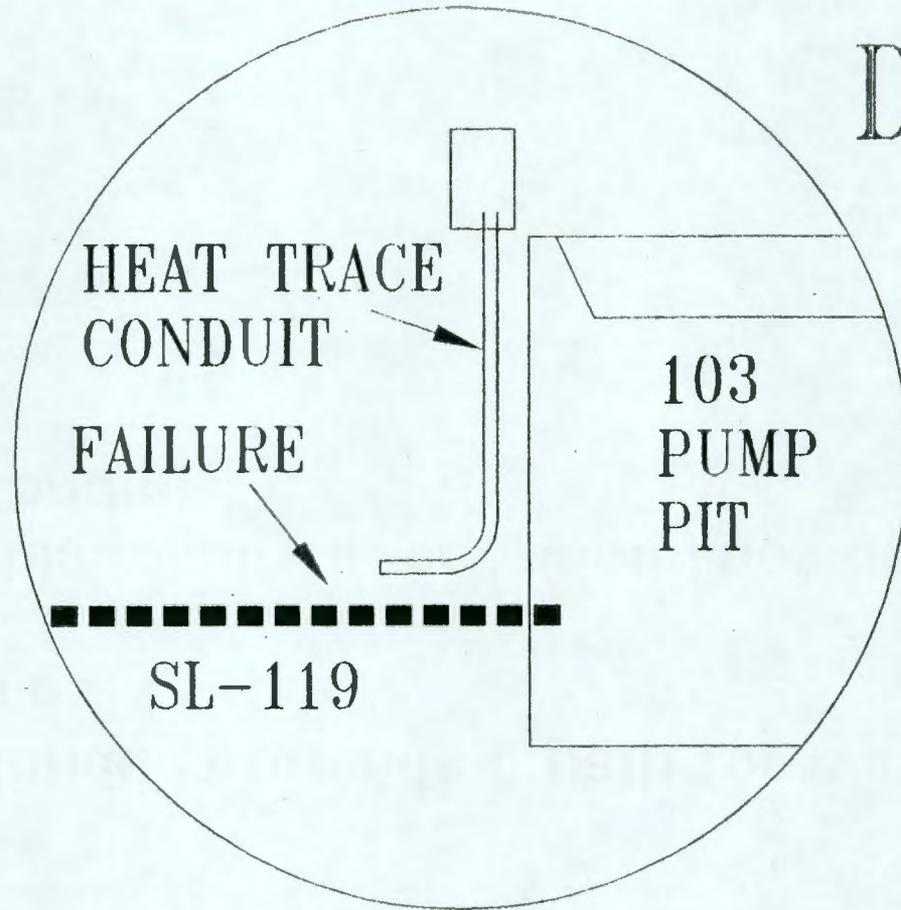
Overground Transfer Line Issues

- **Cost**
- **Operations**
- **Waste**
- **Safety**

RESULTS FROM CONDUIT CORROSION INVESTIGATION

- **Conduits provide a path for water to impact transfer lines**
- **This results in corroded lines below Heat Trace Conduit**

FAILURE ZONE DETAIL

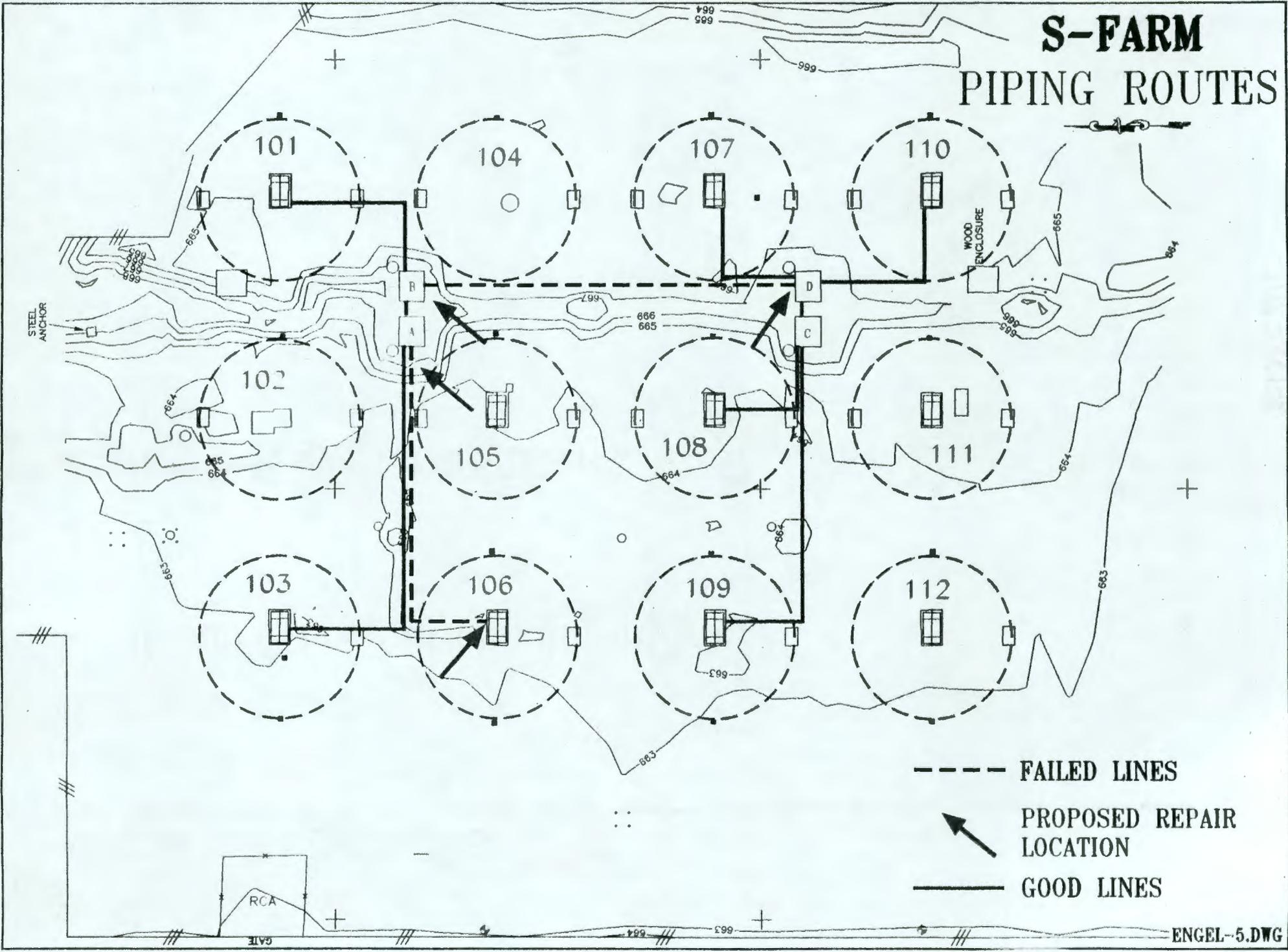


----- FAILED LINE

RECOMMENDATIONS

- **Repair 2 lines at conduit interface**
- **Test -**
- **If good, use for transfer -**

S-FARM PIPING ROUTES



- FAILED LINES
- ➔ PROPOSED REPAIR LOCATION
- GOOD LINES

ACTIONS

- **Seek State, EPA approval for use of single-encased lines**

COMPLETION OF INTERIM STABILIZATION OF SINGLE-SHELL TANKS

Tri-Party Agreement Definition--

Interim Stabilization: is the removal of pumpable supernatant and interstitial liquid from SST systems into DST systems. As much liquid as practicable will be removed.

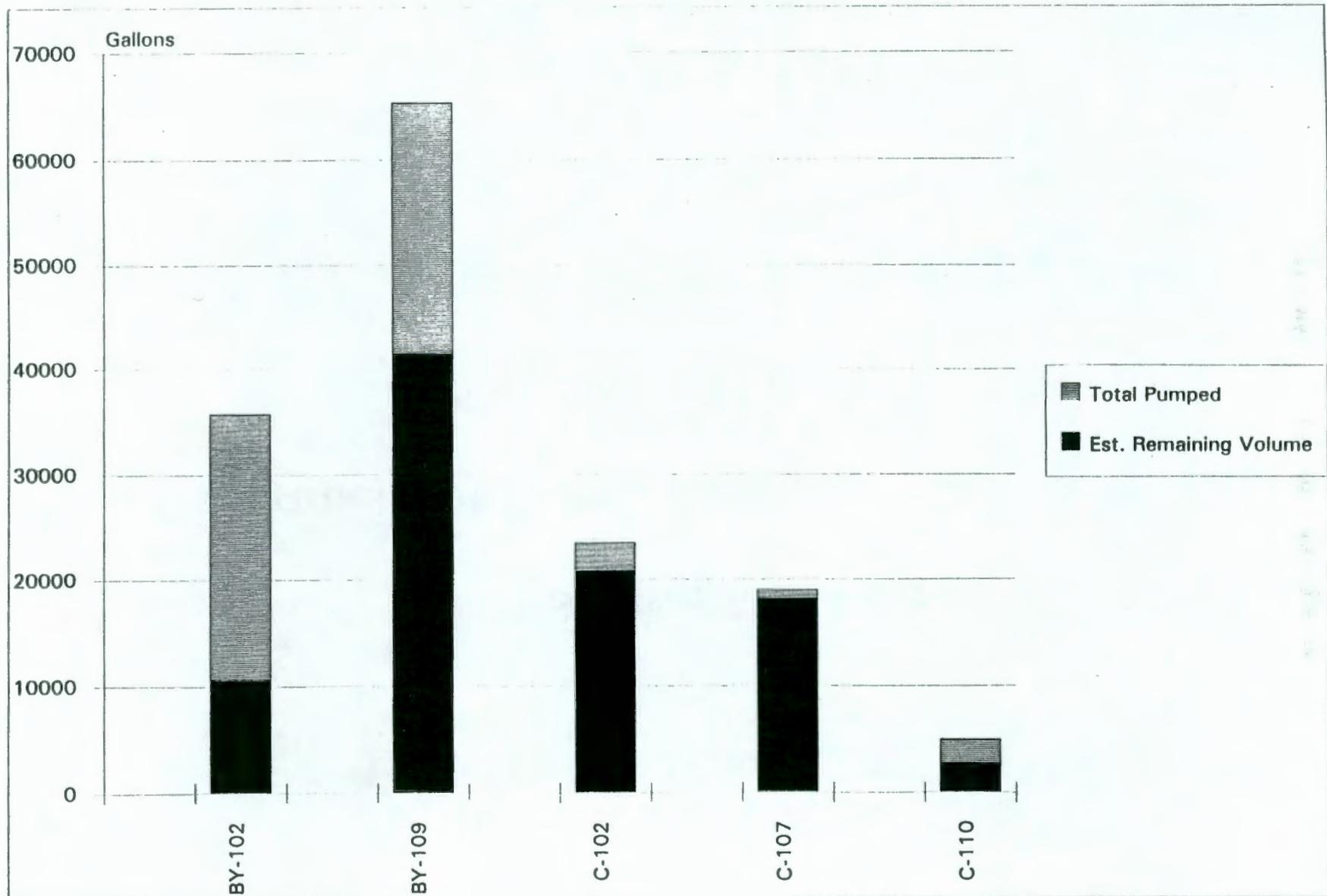
COMPLETION OF INTERIM STABILIZATION OF SINGLE-SHELL TANKS

- Target milestones exist for completion of each group of tanks. Interim Stabilization will be considered complete when jet pumping of each tank is complete. Jet pumping will be complete when as much liquid as practical is removed to a DST system. This occurs when pumping rate drops to 0.05 gpm. When this occurs to the last pump in a group, the milestone is declared complete. At this point, there should be less than 5000 gallons of supernatant and 50,000 gallons of drainable interstitial liquid remaining in the tank.

COMPLETION OF INTERIM STABILIZATION OF SINGLE-SHELL TANKS

- After completion of the milestone, the official interim stabilization documentation is prepared.
 - The tank is allowed to equilibrate for approximately a month.
 - Photos and liquid level measurements are taken.
 - An engineering evaluation of the information is completed.
 - Formal interim stabilization documentation is issued explaining the amount of liquid remaining in the tanks.
 - If for some reason the interim stabilization criteria has not been met, the resumption of pumping will be reviewed.

M-41-01 INTERIM STABILIZATION



9513335.0732

**DOUBLE AND SINGLE-SHELL
TANK CHARACTERIZATION**

MILESTONE M-44-00

U.S. Department of Energy / Richland Operations Office

John Clark - U.S. DOE

Unit Managers Meeting

**November 9, 1994
Richland, Washington**

DOUBLE AND SINGLE-SHELL TANK CHARACTERIZATION

MILESTONE M-44-00

TOPICS

- Accomplishments
- Planned Activities
- Issues/Problems
- Special Issues

ACCOMPLISHMENTS

- The Hanford Federal Facility Agreement and Consent Order milestone M-44-05 was completed on September 29, 1994, with the transmittal of twenty (20) Tank Characterization Reports to the U.S. Department of Energy, Richland Operations Office (DOE-RL), for forwarding to the Washington State Department of Ecology and the Environmental Protection Agency. The following tanks were covered by the reports:

241-AP-101, 241-AP-102, 241-AP-103, 241-AP-105, 241-AP-106, 241-AP-107, 241-B-110, 241-C-110, 241-T-104, 241-T-107, 241-BY-107, 241-T-111, 241-S-104, 241-AW-102, 241-AW-105, 241-AW-107, 241-T-105, 241-B-111, 241-B-201, and 241-T-102.

- Hanford Federal Facility Agreement and Consent Order milestone M-44-06, Data Loading of 20 tanks into the Tank Characterization Database, was transmitted to the DOE-RL on September 13, 1994. Laboratory data packages for the following tanks have been entered into the database:

241-AP-101	241-AP-107	241-B-202	
241-AP-102	241-AW-102	241-BX-107	
241-AP-103	241-AW-105	241-C-110	(Cont'd)

241-AP-105	241-AW-106	241-S-104
241-AP-106	241-B-111	241-SY-101
241-T-102	241-T-104	241-T-105
241-T-107	241-T-111	

- Tank Characterization Plans for tanks 241-AN-107, 241-AX-102, 241-AX-104, 241-AY-102, 241-B-102, 241-BY-106 (grab), 241-BX-101, 241-BX-105, 241-BX-108, 241-BY-105, 241-BY-106 (rotary), 241-C-106, 241-C-108, 241-C-111, 241-S-102, 241-S-110, 241-SY-103, 241-T-102, 241-T-112, 241-U-106, 241-U-107, 241-C-103, 241-A-104, ER-311, 244A, 241-BY-103, 241-BY-107, 241-C-105, and 241-BY-108 were issued. Currently, Tank Characterization Plans for tanks 241-AW-101 (auger), 241-BY-108 (rotary), 241-BY-110 (vapor), 241-BY-108 (auger), 241-BY-111 (vapor), 241-AP-106 (grab), 241-BY-112 (vapor) are in review.

Planned Activities

November 1994

PLANNED ACTIVITIES

ACTIVITY ID	LEVELED		LEVELED		FY95			
	ES		EF		OCT	NOV	DEC	JAN
	PS25-4	3NOV94	7: 00	2DEC94	14: 59		C-105 Push Sample 2 Segment 3 <input type="checkbox"/>	
GS86-4	7NOV94	7: 00	9NOV94	14: 59		C-106 Grab Sample Process Control - Jones <input type="checkbox"/>		
VS0N-4	7NOV94	7: 00	9NOV94	14: 59		BY-110 Vapor Sample (3) <input type="checkbox"/>		
AS99-4	10NOV94	7: 00	16NOV94	14: 59		C-102 Auger Sample 1 Segment 1 <input type="checkbox"/>		
VS52-4	10NOV94	7: 00	14NOV94	14: 59		BY-111 Vapor Sample (3) <input type="checkbox"/>		
GS25-4	14NOV94	7: 00	16NOV94	14: 59		AP-106 242-A CAMPAIGN 95-1 Sample 10 <input type="checkbox"/>		
VSZ8-4	15NOV94	7: 00	17NOV94	14: 59		BY-112 Vapor Sample (3) <input type="checkbox"/>		
EFLW016	21NOV94	7: 00	23NOV94	14: 59		FIELD WORK: INSTALL LOW BY106 <input type="checkbox"/>		
GS92-4	21NOV94	7: 00	23NOV94	14: 59		AW-102 Grab Sample Process Control - Von Bargaen <input type="checkbox"/>		
EFLW038	22NOV94	7: 00	28NOV94	14: 59		FIELD WORK: INSTALL LOW T107B <input type="checkbox"/>		
AS04-4	28NOV94	7: 00	2DEC94	14: 59		AW-101 Auger Sample 3 Segment 1 <input type="checkbox"/>		
GS66-4	30NOV94	7: 00	2DEC94	14: 59		AY-102 Grab Sample Process Control - Jones <input type="checkbox"/>		
RS03-4	30NOV94	7: 00	5JAN95	22: 59		BY-104 Rotary Sample 2 Segment 7 <input type="checkbox"/>		
					OCT	NOV	DEC	JAN
					FY95			

Plot Date 3NOV94 16: 07
 Data Date 15SEP94 7: 00
 Project Start 10CT93 7: 00
 Project Finish 22OCT97 14: 59

Activity Bar/Early Dates
 Critical Activity
 Progress Bar
 Milestone/Flag Activity

SAMP
 WESTINGHOUSE-HANFORD
 TANK FARM OPERATIONS 1NOV94-30NOV94
 BASELINE SAMPLING SCHEDULE (Shifts)

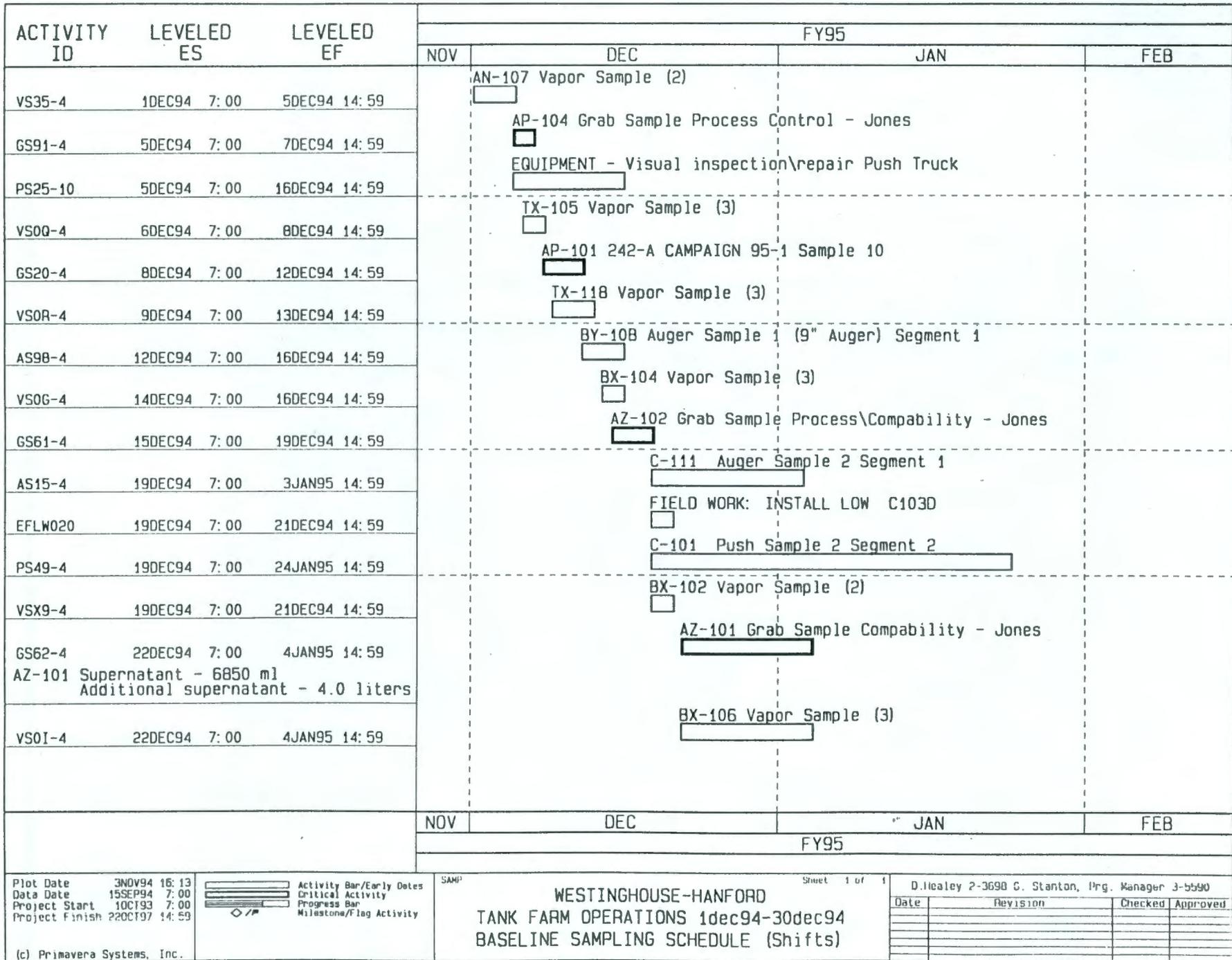
Sheet 1 of 1
 D.Healey 2-3698 G. Stanton, Prg. Manager 3-5590

Date	Revision	Checked	Approved

9513335-0735

Planned Activities (Continued)

December 1994



9513335.0736

Plot Date 3NOV94 16:13
 Data Date 15SEP94 7:00
 Project Start 10CT93 7:00
 Project Finish 22OCT97 14:59

Activity Bar/Early Dates
 Critical Activity
 Progress Bar
 Milestone/Flag Activity

SAMP
 WESTINGHOUSE-HANFORD
 TANK FARM OPERATIONS 1dec94-30dec94
 BASELINE SAMPLING SCHEDULE (Shifts)

Sheet 1 of 1
 D. Healey 2-3690 G. Stanton, Prg. Manager 3-5590

Date	Revision	Checked	Approved

Planned Activities (Continued)

FY 1995 Milestone Status

- **M-44-01** **Submit Draft Tank Waste Analysis Plan Update to Ecology/EPA, due May 31, 1995.**
 - **On schedule**
- **M-44-02** **Submit Tank Waste Analysis Plan Annual Update to Ecology/EPA, due August 31, 1995.**
 - **On schedule**
- **M-44-08** **30 Tank Characterization Reports in Accordance with the Approved Tank Characterization Plans. Complete input of Characterization information for 30 High Level Waste Tanks to Electronic Database, due September 29, 1995.**
 - **On schedule**

ISSUES\PROBLEMS

- 325 Laboratory Restart

Problem:

The 325 laboratory remains in stand down following the "pause" on April 21, 1994.

Corrective Actions:

- The 222-S laboratory has been able to handle all samples sent to date.
- The prestart action items identified by the Pacific Northwest Laboratories Safety Review Council during their assessment of facility operations and the prestart action items identified by the DOE Line Review Team have been completed.
- The DOE Independent Review Team's assessment report was issued to DOE and 325 management. The report summarized those areas in the laboratory that were assessed and the deficiencies noted. The total impact to the restart schedule remains undefined. A more definitive status will be available by November 9, 1994.

- **325 Laboratory Restart (Continued)**

- **A complete 325 Laboratory walkdown is being conducted in response to the very basic deficiencies noted by the DOE-RL Independent Review Team. The walkdown includes OSHA, Criticality Safety, Material Balance Areas, Radiation Control and Health and Safety related issues.**
- **INEL start-up likely to lessen the impact.**
- **Initial shipments will be made using Type "A" casks.**

ISSUES\PROBLEMS (Continued)

- **Riser Availability**

Problem:

- Many SSTs only have 1-3 available risers. Competing for instrument installation through these risers may leave an insufficient amount for Characterization (e.g. Thermocouple trees, LOWs).
- The FY-95 Characterization budget does not (at this time) include funds for new riser installations.
- Some related TPA milestones may be negatively impacted if schedule integration is not successful.

Corrective Actions:

Integrate instrument installation/Characterization activities. Confirm risers with cameras/"plug gauge" (to see if straight, etc.). Integrating instrument installation schedule and LOW schedule with sampling schedule to reduce impacts.

The study for installation of new risers in single-shell tanks was completed. The study presents five alternatives ranging in cost from \$363K to \$2M per 12 inch riser with the cost per riser diminishing somewhat if five or more risers are installed. The study concludes that a one year, \$400K on site demonstration using Alternative 3, a core

- **Riser Availability (Continued)**

drill, should be performed. DOE-RL has contracted with the U.S. Army Corps of Engineers to evaluate faster, better, cheaper alternatives for the demonstration and the actual installations.

ISSUES/PROBLEMS (Continued)

- Approval of Tank Characterization Plans
 - No Ecology/EPA response to the Tank Characterization Plans submitted by DOE-RL for approval.

Corrective Actions

- Discuss process for approval of Tank Characterization Plans.
- DOE-RL prefers to build quality up front (i.e. use approved Tank Characterization Plans) rather than "inspect" it at the end of the process (i.e. approve the resultant Tank Characterization Reports).

SPECIAL ISSUES - GOOD NEWS!

- **Improved Sampling Productivity**

Please note that during the week of October 24, 1994, all of the sampling systems available to WHC:

- 1 - Push Mode system
- 1 - Rotary Mode system
- 1 - Vapor Sampling system
- 1 - Supernatant Sampling system
- 1 - Shielded Auger Sampling system

were operational and in use within the tank farms.

There is a lot of good work happening in the sampling program and DOE-RL wants to make sure the efforts are not overlooked as we force ourselves to address just the issues and problems.

SNAPSHOT SCHEDULE

Sampling Activities for the week of November 7, 1994

9513335.0740

[304] From: G T (Tom) Frater at ~WHC338 11/7/94 1:30PM (2312 bytes: 33 ln)
To: Eugene J Jr Austin at ~WHC174, David R Bratzel at ~WHC268, John M Clark at
~DOE15, Cherri DeFigh-Price at ~WHC79, Gerald D Forehand at ~WHC268,
F P (Derk) Franklin at ~WHC15, Vernon W Hall at ~WHC321, Carl S Haller at
~WHC308, Dennis W Hamilton at ~WHC340, Joseph P Haney at ~MTC7,
Delores A Healey at ~WHC12, Thomas J (Tom) Kelley at ~WHC396,
David B (Bruce) Klos at ~WHC33, John G Kristofzski at ~WHC168, Kenneth Lang at
EM, James S (Jim) Lee at ~WHC340, Susan G McKinley at ~PNL89, George J Miskho
at ~WHC140, James Poppiti at EM, Richard S Rodriquez at ~WHC73,
Ruth D Schreiber at ~WHC163, Peter Segall at ~WHC321, George A Jr Stanton at
~WHC175, Peter H (Pete) Thomsen at ~WHC174, Richard D Zill at ~DOE15,
G T (Tom) Frater

Subject: Changes-Plan of the Week-Field Sampling

----- Message Contents -----

Changes and Corrections

Snapshot for the week starting 11-7-94

- Monday Install power supply in BY farm for rotary truck
AP-106 setup for liquid grab sample
A-104 auger samples
AW-102 liquid grab samples
- Tues Rotary truck exhaustor heatup (BY-106)
A-104 auger sample
AW-102 liquid grab sample
BY farm setup; Heated Vapor Probe in tanks 110, 111, 112
CR-003 liquid grab sample
- Wed All tank farm Safety Meeting and Training Sessions
- Thur BY-106 rotary sample
C-108 camera installation and auger setup
AW-102 liquid grab sample
BY-110 vapor sample
AP-106 liquid grab sample
- Friday BY-106 rotary sample
C-108 setup and auger sample
BY-111 vapor sample