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Meeting Minutes Transmittal/Approval
Unit Managers Meeting: Single-Shell Tanks
MO-276 Building/Room 131A
200 East Area Hanford Site, Washington

March 22, 1994

From/
Appvl: Wendell R. Wrzesinski — Date: 12/20/94
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: David R. Einan — Date: 15 Feb 95
Daye Einan, SST Unit Manager, EPA Region X

Appvl: Lisa Garner — Date: 11/30/94
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 - Double and Single-Shell Tank Characterization
Handout 2 - Characterization Support TCP Planning Schedule
Handout 3 - Status Report, Data Quality Objectives
Handout 4 - Single Shell Tanks Interim Stabilization/Isolation
Handout 5 - Tank 241-T-111 Assumed Releaker
Handout 6 - Change Control Form/Emergency Pump...Tank 241-T-111
Handout 7 - SST Liquid Level Monitoring at Hanford
Handout 8 - Tri-Part Agreement Milestones- Waste Tank Safety Program Status Report
Handout 9 - Complete Closure of All Single Shell Tank Farms Milestone M-45-00

UNIT MANAGERS MEETING: SINGLE-SHELL TANKS
MEETING SUMMARY/SUMMARY OF ACTION ITEMS AND AGREEMENTS

March 22, 1994

Opening Remarks: (L. Garner, WHC). The meeting was opened and introductions were made.

Characterization: Handouts for this segment were (1) the presentation, (2) the Tank Characterization Plans (TCP) schedule, and (3) the Data Quality Objectives (DQO) schedule.

The TCP's have been completed for SY-103, T-111, C-111, C-108, C-106, BX-101, S-110, and AY-102. These were sent to EPA and Ecology as appendices to the Tank Waste Analysis Plan (TWAP). Ecology would like to know if the TCP schedule available for the 20 tanks is in the schedule.

The FONSI for the Waste Tank Safety environmental assessment was signed February 25, 1994.

Six DQO's were issued in the last three weeks, including the organic DQO. The new DQO team has reduced the size of the document from 400 pages to 50 pages.

Testing is complete for the Rotary-Mode Core Sampling Equipment. The reports are being prepared for the operational readiness review. Current status is two weeks behind. There is a new Department of Energy compliance order. Deployment of the equipment is expected the third week of April, unless there is a difference of opinion on the interpretation of the Order. The Department of Energy - Richland (RL) authorization to Westinghouse Hanford Company (WHC) to commence sampling of C-111 should be received this week or early next week.

The Tank Waste Analysis Plan is completed and is in the final WHC review.

In response to questions: There is no TPA milestone for deployment of the rotary mode core sampling truck. Previous problems with the shearing of the shaft have been resolved. Training has been completed.

Interim Stabilization: Handout #4 is the presentation. To date, 21,750 gallons have been pumped from BX-111, with as much as 30-40,000 gallons left.

BY/C Farms - As of now, pumping of BY farm, M-41-01-T1, is ahead of schedule. The C farm, M-41-01-T1, is on schedule but may be impacted by T-111. Presently, this is in jeopardy. Pumps have been flushed, and liquid levels and readings taken in C farm, using dip tubes. This will be done monthly to establish a baseline. Flushing of the pumps will be performed every two months, adding approximately 100 gallons/flush. The BY transfer lines have been pressure tested, but not the C farm lines.

The OSO/OSR/procedure review is preventing pumping of the BX DCRT. This should be resolved shortly, allowing the resumption of BX-111 pumping. Will the additional volume in BX-111 affect the storage capacity? The answer is

The OSO/OSR/procedure review is preventing pumping of the BX DCRT. This should be resolved shortly, allowing the resumption of BX-111 pumping. Will the additional volume in BX-111 affect the storage capacity? The answer is yes, but not significantly. The volume of BX-111 supernatant liquid and porosity was underestimated.

T-111 - Handout #5 is the T-111 presentaiton. T-111 increases of 1984-93 may be due to condensation. Rust on the sidewall in FIC photo may support the theory of condensation running down the sidewall, causing corrosion. The FIC in pool may be due to liquid from flushing the core sample taken in 1991. The dried sample indicated 22-29% water in the sample with no separation. The supernatant pumping should be quick but the sludge pumping very slow. This is because the sludge holds onto water, much as jello does. There is no leak indication from the five drywells. However, unusually low radiation levels in the tank may indicate leaking. The estimated leak of 1500 gallons would not yet have reached the drywells.

The vapor/liquid/SY-102 compatibility sampling has been completed. If it does not adversely impact the schedule, samples of the 244-TX sludge will be taken in support of material balance studies.

Shopwork is nearing completion on the emergency skid. Run-in on the pump was started this morning. The OTP, calibration, and troubleshooting are being performed in the shop. Everything should be ready to move the pump into the field later this week.

Question: Why was the skid not calibrated and ready to go? Answer: We are working on the milestone to have PMS/CALS for skids.

TPA Changes - A TPA change request should be drafted, adding the pumping milestone M-41-20. M-41-01-T01 and M-41-01-T02 should be pushed back one month. Also, delete one tank in tank farm from M-41-06. An attempt will be made to make these a level 3 signatory change. The draft should be to Ecology in about one week.

Compliance Issues

1) 244-U DCRT - Ecology concurrence is assumed, since no comments have been received to date.

2) Maintenance training - same as #1.

3) (a) A leaking single shell tank (SST) cannot be repaired, as required by WAC 173-303-640.
   (b) A leaking SST cannot be pumped within 24 hours. This has been owner/operator demonstrated.
   (c) Daily monitoring cannot be performed per the TPA agreement. Ecology has not talked to Roger Stanley yet. Ecology understands Hanford will proceed as defined. Steve Moore has not heard from Attorney General's office.

LOW/FIC changes could be made, but schedules are not adjusted without Ecology concurrence. Daily FIC and weekly LOW are okay. LOW's could be installed. Once a year photos could be taken within the tanks, however, this raises concerns about compliance in the public perception.

4) Liquid Level Monitoring (Handout #7): Leak detection methodology shows Stress corrosion/cracking and beachline corrosion (appears to be primarily beachline).

5) C-106: Oliver Wang will provide a briefing in April.

6) C-102/106/107: A possible leak detection method for these tanks would be monthly liquid levels in the saltwell screens.

7) Cross-site Transfer Line: There are six lines; four have failed, two are still in service. The SY-102/241-EW-151 vent station catch tank transfers are okay. Regarding SY-102 supernate transfer, a transfer was made two years ago (in 1992). A cross-site transfer needs to be made before May, 1995, based on waste volume projections. Evaluations are underway to determine when to perform the cross-site transfer.

Scott was told in Denver that a new cross-site line was necessary because the existing line could not be used. Is the existing line okay for solids transfer? Yes, because it can be sluiced, but there have been past failures due to solids clogging. Failures were caused from 101-SY, because of the long line and precipitation, especially, if transfer was thermally hot. The new line will have heating problem. The issue is "Is the new cross-site line needed, given the number of new tanks?" (The environmental assessment for the new cross-site line is in jeopardy. It does not affect the number of tanks but may affect the locations.)

Safety: (Handout #8) No presentation.

Retrieval/Closure: (Handout #9)

M-45-03A: Ecology is in agreement with the SST Part A permit application modification submitted in December 1993. Ecology is awaiting feedback from Bob King regarding CAA permitting. The phase approach for CAA permitting is under consideration. Scott McKinney will contact Wendell Wrzesinski with feedback on CAA status.

M-42-01-T01 (Glen Konzek): The key decision 2 MFWTF action memorandum - Approval to initiate the Title 2 design is expected from Grumbly to RL. This will be a conditional approval, although it is not yet clear what this means. The ADM is at EM-30 in Jill Lytle's office today.

Single-Shell Tanks Unit Managers Meeting
March 22, 1994

Name	Organization	Phone
Lisa Garner	WHC - Tank Farms	373-1505
Tom Rainey	WHC - TWR Programs	373-3531
Alisa Hakaby	Ecology	736-3034
Kurt Silvers	WHC - Chara. Program	378-4557
Mardine Campbell	WHC - Tank Farms	373-1131
Mary Ann McLaughlin	WHC - Tri-Party Agreement	376-4084
David L Schleck	~~MACTEC~~ GSSC / DOE	376 1457
Don Engelman	WHC - WTPE	373-3452
Scott McKinney	Ecology	(206) 407-7146
Luis Soler	Dames & Moore/GSSC	946-3680
[illegible]	DOE	372-1856
Rick Raymond	WHC - WTPE	373-3647

AGENDA
TRI-PARTY AGREEMENT
SINGLE-SHELL TANKS
UNIT MANAGER MEETING

March 22, 1994, 9:30 a.m. to 12:00 p.m.
Room 131A, Building MO277, 200-East Area, Hanford Site, Washington

Time	Topic	Presenter
9:30 to 10:00	Tank Waste Characterization	Clark
10:00 to 11:00	Interim Stabilization	Bishop
11:00 to 11:30	Retrieval/Closure	Wrzesinski
11:30 to 12:00	Safety	Christianson

ACCOMPLISHMENTS

- Issued the Safety Screening Data Quality Objective on February 24, 1994
- Received approval on broad based Environmental Assessment February 25, 1994
- Completed and issued the Characterization Program Quality Assurance Program Plan on February 28, 1994
- Loaded previous Characterization data from Single-Shell Tanks 241-S-104, T-104 and T-107 into Tank Characterization Database
- Prepared Tank Characterization Plans for sampling Waste Tanks 241-SY-103, T-111, C-111, C-108, C-106, BX-101, S-110 and AY-102
- Completed technical transfer of newly developed total organic carbon procedure from the Pacific Northwest Laboratory to the 222-S Laboratory.

FY 1994 Milestone Status

- M-44-07 Complete all FY 1992 and 1993 core sample analyses and complete validation of the resulting data.
  - Completed - ahead of schedule - on November 18, 1993
- M-44-04 Input Data from 3 HLW Tanks into Tank Characterization Database January 31, 1994
  - Completed - ahead of schedule - on January 13, 1994
- M-44-05 Issue 20 Tank Characterization Reports in accordance with approved Tank Characterization Plans.
  - on schedule for completion on September 15, 1994
- M-44-06 Input Data from 20 HLW Tanks into Tank Characterization Database
  - on schedule for completion on September 30, 1994
- M-44-01A Issue Draft of FY95 Tanks Waste Analysis Plan to Ecology and EPA
  - on schedule for completion on May 31, 1994

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

March 22, 1994
Richland, Washington

DOUBLE AND SINGLE-SHELL TANK CHARACTERIZATION

MILESTONE M-44-00

TOPICS

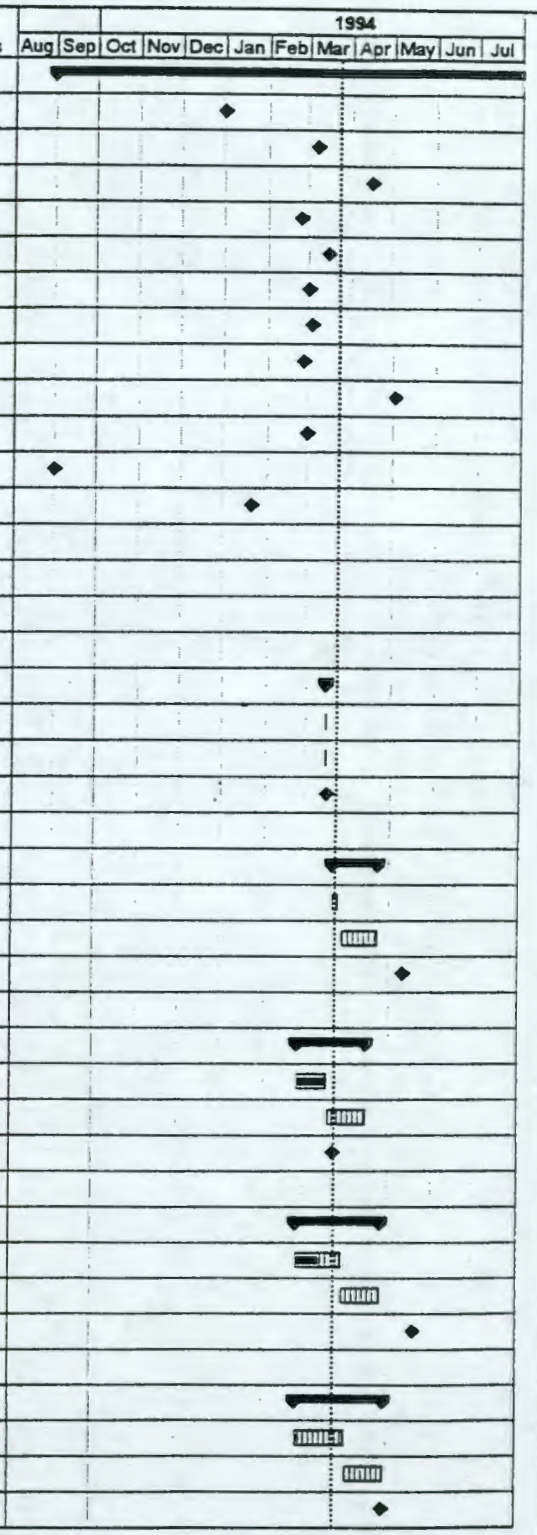
- Accomplishments
- FY 1994 Milestone Status
- Special Topics

SPECIAL TOPICS

- Data Quality Objective Planning Process - Status Schedule
- Status of Rotary-Mode Core Sampling Equipment
- Status of Push-Mode Core Sampling Equipment
- Status of FY-95 Tank Waste Analysis Plan and Tank Characterization Plans

Characterization Support TCP Planning Schedule

ID	Name	Dur	Start	Finish	% C	Pred	Res
1	Data Quality Objectives	277d	8/31/93	9/21/94	69%		
2	Ferrocyanide	1d	12/31/93	12/31/93	100%		
3	Crust Burn Flammable Gas	1d	3/7/94	3/7/94	100%		
4	Core DST Flammable Gas	1d	4/15/94	4/15/94	25%		
5	Safety Screening	1d	2/23/94	2/23/94	100%		
6	Organic	1d	3/15/94	3/15/94	50%		
7	Waste Compatibility	1d	3/1/94	3/1/94	100%		
8	In-Tank Generic Vapor	1d	3/3/94	3/3/94	100%		
9	Vapor Rotary Mode	1d	2/25/94	2/25/94	100%		
10	Retrieval	1d	5/1/94	5/2/94	50%		
11	C-103 Vapor	1d	2/28/94	2/28/94	100%		
12	C-103 Dip Sample	1d	8/31/93	8/31/93	100%		
13	C-106 High Heat	1d	1/20/94	1/20/94	100%		
14	Pretreatment	1d	8/31/94	8/31/94	10%		
15	HLW Immobilization	1d	9/6/94	9/6/94	0%		
16	LLW Immobilization	1d	9/21/94	9/21/94	0%		
17							
18	AP-108 Grab Sample	1d	3/15/94	3/15/94	50%		
19	Issue TCP Exemption Memo	1d	3/15/94	3/15/94	100%		
20	Lab Preparation	1d	3/15/94	3/15/94	0%	19	
21	Planned Sampling Start (GS51)	1d	3/16/94	3/16/94	0%	20	
22							
23	AN-107 Grab Sample	25d	3/21/94	4/22/94	0%		
24	Prepare TCP	5d	3/21/94	3/25/94	0%		
25	Lab Preparation	20d	3/28/94	4/22/94	0%	24	
26	Planned Sampling Start (GS55)	1d	5/10/94	5/10/94	0%	25	
27							
28	C-111 Push Mode Sample	36d	2/24/94	4/14/94	38%		
29	Prepare TCP	16d	2/24/94	3/17/94	99%	2,5	
30	Lab Preparation	20d	3/18/94	4/14/94	0%	29	
31	Planned Sampling Start (PS01)	1d	3/22/94	3/22/94	0%		
32							
33	C-108 Push Mode Sample	43d	2/24/94	4/25/94	27%		
34	Prepare TCP	23d	2/24/94	3/28/94	50%	2,5	
35	Lab Preparation	20d	3/29/94	4/25/94	0%	34	
36	Planned Sampling Start (PS07)	1d	5/19/94	5/19/94	0%	35	
37							
38	C-102 Push Sample	46d	2/24/94	4/28/94	6%		
39	Prepare TCP	26d	2/24/94	3/31/94	10%	5	
40	Lab Preparation	20d	4/1/94	4/28/94	0%	39	
41	Planned Sampling Start (PS03)	1d	4/27/94	4/27/94	0%		

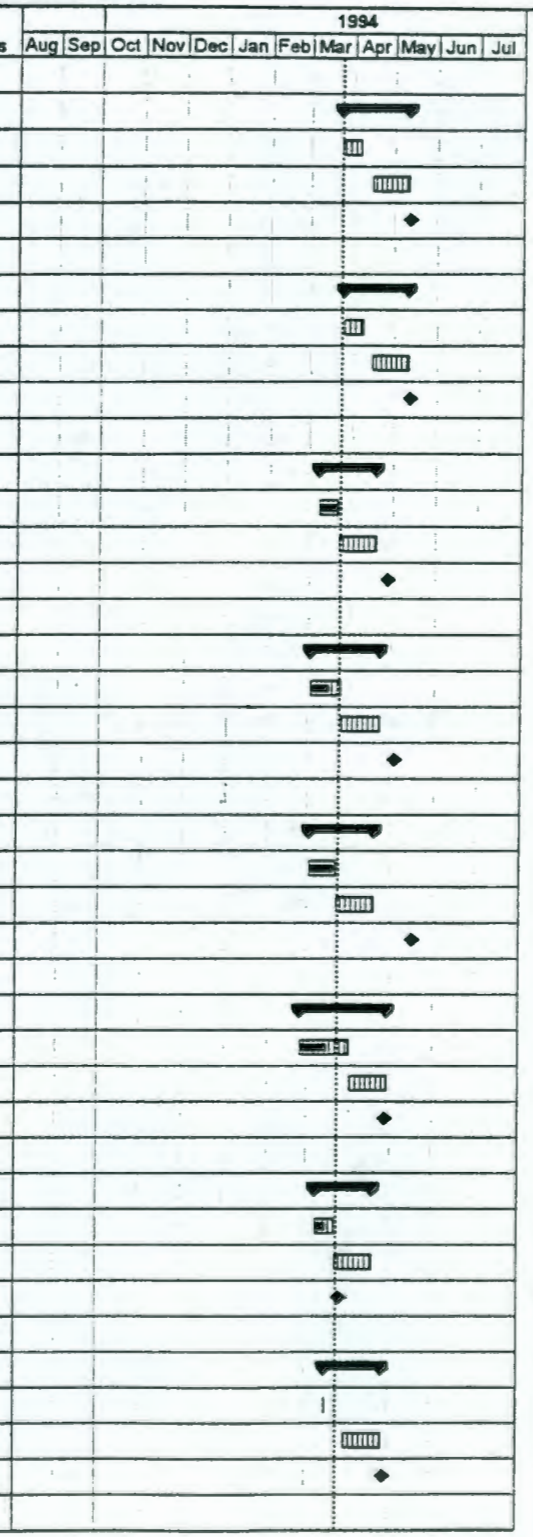


Project: Tank Waste Remediation System
Date: 3/22/94 Time: 7:45 am

Critical
Noncritical
Progress
Milestone
Summary
Rolled Up

Characterization Support TCP Planning Schedule

ID	Name	Dur	Start	Finish	% C	Pred	Res
42							
43	C-103 Push Sample	36d	3/23/94	5/11/94	0%		
44	Prepare TCP	10d	3/23/94	4/5/94	0%	5	
45	Lab Preparation	20d	4/14/94	5/11/94	0%	44	
46	Planned Sampling Start (PS05)	1d	5/12/94	5/12/94	0%	45	
47							
48	C-104 Push Sample	34d	3/25/94	5/11/94	0%		
49	Prepare TCP	10d	3/25/94	4/7/94	0%	5	
50	Lab Preparation	20d	4/14/94	5/11/94	0%	49	
51	Planned Sampling Start (PS08)	1d	5/12/94	5/12/94	0%	50	
52							
53	SY-103 Auger	30d	3/8/94	4/18/94	33%		
54	Prepare TCP	10d	3/8/94	3/21/94	98%	3	
55	Lab Preparation	20d	3/22/94	4/18/94	0%	54	
56	Planned Sampling Start (AS01)	1d	4/27/94	4/27/94	0%	55	
57							
58	AY-102 Grab Sample	37d	3/2/94	4/21/94	28%		
59	Prepare TCP	17d	3/2/94	3/24/94	60%	7	
60	Lab Preparation	20d	3/25/94	4/21/94	0%	59	
61	Planned Sampling Start (GS52)	1d	5/1/94	5/2/94	0%		
62							
63	S-110 Grab Sample	34d	3/2/94	4/18/94	37%		
64	Prepare TCP	14d	3/2/94	3/21/94	90%	7	
65	Lab Preparation	20d	3/22/94	4/18/94	0%	64	
66	Planned Sampling Start (GS54)	1d	5/15/94	5/16/94	0%	65	
67							
68	C-106 Rotary Mode Sample	46d	2/24/94	4/28/94	28%		
69	Prepare TCP	26d	2/24/94	3/31/94	55%	5,13	
70	Lab Preparation	20d	4/1/94	4/28/94	0%	69	
71	Planned Sampling Start (RS02)	1d	4/27/94	4/27/94	0%		
72							
73	BX-101 Auger Sample	30d	3/8/94	4/18/94	10%		
74	Prepare TCP	10d	3/8/94	3/21/94	55%	5	
75	Lab Preparation	20d	3/22/94	4/18/94	0%	74	
76	Planned Sampling Start (AS03)	1d	3/25/94	3/25/94	0%		
77							
78	AN-102 Grab Sample (RCRA)	30d	3/15/94	4/25/94	5%		
79	Use WAP per CDP	1d	3/15/94	3/15/94	100%	5,7	
80	Lab Preparation	20d	3/29/94	4/25/94	0%	79	
81	Planned Sampling Start (GS21)	1d	4/26/94	4/26/94	0%	80	
82							

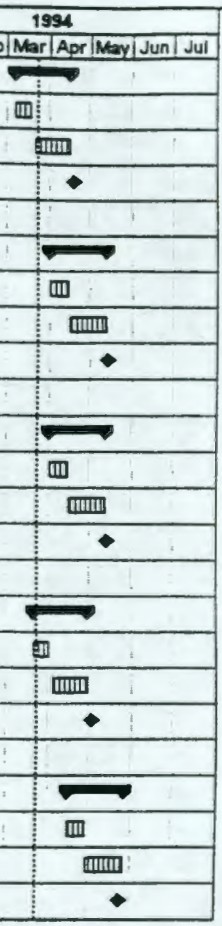


Project: Tank Waste Remediation System
Date: 3/22/94 Time: 7:45 am

Critical
Noncritical
Progress
Milestone
Summary
Rolled Up

Characterization Support TCP Planning Schedule

ID	Name	Dur	Start	Finish	% C	Pred	Res
83	BY-105 Grab Sample	30d	3/7/94	4/15/94	0%		
84	Prepare TCP	10d	3/7/94	3/18/94	0%	7	
85	Lab Preparation	20d	3/21/94	4/15/94	0%	84	
86	Planned Sampling Start (GS02)	1d	4/18/94	4/18/94	0%	85	
87							
88	BY-103 Grab Sample	30d	4/1/94	5/12/94	0%		
89	Prepare TCP	10d	4/1/94	4/14/94	0%	7	
90	Lab Preparation	20d	4/15/94	5/12/94	0%	89	
91	Planned Sampling Start (VS41)	1d	5/13/94	5/13/94	0%	90	
92							
93	BY-106 Grab Sample	30d	4/1/94	5/12/94	0%		
94	Prepare TCP	10d	4/1/94	4/14/94	0%	7	
95	Lab Preparation	20d	4/15/94	5/12/94	0%	94	
96	Planned Sampling Start (GS15)	1d	5/13/94	5/13/94	0%	95	
97							
98	B-102 Auger Sample	30d	3/21/94	4/29/94	0%		
99	Prepare TCP	10d	3/21/94	4/1/94	0%	5	
100	Lab Preparation	20d	4/4/94	4/29/94	0%	99	
101	Planned Sampling Start (AS05)	1d	5/2/94	5/2/94	0%	100	
102							
103	SY-103 Push Mode Sample	30d	4/15/94	5/26/94	3%		
104	Prepare TCP	10d	4/15/94	4/28/94	10%	4,5	
105	Lab Preparation	20d	4/29/94	5/26/94	0%		
106	Planned Sampling Start (PS02)	1d	5/23/94	5/23/94	0%		



Project: Tank Waste Remediation System
Date: 3/22/94 Time: 7:45 am

Critical
Noncritical
Progress
Milestone
Summary
Rolled Up

#3

STATUS REPORT, DATA QUALITY OBJECTIVES
TWRS CHARACTERIZATION PROGRAM
Chart compiled by D. J. McCain 373-1023
Effective date: 3/21/94

TYPE	WHC RESPONSIBLE PERSON/PHONE	DOCUMENT NUMBER	DOCUMENT TITLE	DUE DATE/STATUS/ TRANSMITTAL NUMBER	DOE-RL RESPONSIBLE PERSON/PHONE
FeCN	Bob J. Cash 373-3132	WHC-EP-0728	Ferrocyanide Safety Program: Data Requirements for the Ferrocyanide Safety Issue Developed Through the DQO Process	12/31/93 Complete-Issued CCRN 9361056 Rev. 1 as an SD document now in process.	Wally F. Hendrickson 376-5862
C-106 High Heat	Oliver S. Wang 373-3011	WHC-EP-0723	Tank 241-C-106 Sampling Data Requirements Developed Through the DQO Process	1/20/94 Complete-Issued CCRN 9450464	Russell G. Harwood 376-2348
Safety Screening	Harry Babad 373-2897	WHC-SD-WM-SP-004	Tank Safety Screening Data Quality Objectives	2/23/94 Complete-Issued CCRN 9451671	Roger F. Christensen 376-8992
Vapor Rotary Mode	George A. Stanton, Jr. 373-5590	WHC-SD-WM-SP-003	Rotary Core Vapor Sampling Data Quality Objective	2/25/94 Complete-Issued CCRN 9451694	Ellen M. Mattlin 376-2385
Waste Compatibility	Nick W. Kirch 373-2380	WHC-SD-WM-DQO-001	Data Quality Objective for Waste Compatibility Program	3/4/94 Complete-Issued CCRN 9451694	Ami B. Sidpara 376-0933
C-103 Vapor	Jerry W. Osborne 373-5379	WHC-EP-0774	Tank 241-C-103 Vapor and Gas Sampling Data Quality Objectives	2/28/94 Complete-Issued CCRN 9451694	Stanley O. Branch 376-9450
In-Tank Generic Vapor	Jerry W. Osborne 373-5379	WHC-SD-WM-DQO-002	Data Quality Objectives for Generic In-Tank Health and Safety Vapor Issue Resolution	3/7/94 Complete-Issued CCRN 9451694	Stanley O. Branch 376-9450

Crust Burn Flammable Gas	Gerry D. Johnson 373-1324	WHC-SD-WM-DQO-003	Data Requirements Required Through the Data Quality Objectives Process for the Crust Burn Issue Associated with Flammable Gas Tanks	3/14/94 Complete-Issued CCRN 9451694	Gary W. Rosenwald 376-5349
Core DST Flammable Gas	Gerry D. Johnson 373-1324 Norton G. McDuffie 373-2653	WHC-SD-WM-DQO-004	Flammable Gas Safety Program: Data Requirements for the Flammable Gas Safety Issue Developed through the Data Quality Objectives (DQO) Process	Due 4/15/94	Gary W. Rosenwald 376-5349
Organics	Harry Babad 373-2897	PNL-XXXX UC-XXX	Data Requirements and Data Quality Objectives for the Organic-Nitrate Safety Issue in the Hanford Single-Shell Tanks	4/25/94-Large PNL document now being condensed.	Roger F. Christensen 376-5349
C-103 Dip Sample	David A. Turner 373-2238	PNL-8871 UC-510	Organic Layer Sampling for SST 241-C-103 Background, and Data Quality Objectives, and Analytical Plan	8/93 Complete-Issued Rev. 1 now out for comment	Roger F. Christensen 376-8992
Retrieval	Pushpa K. Bhatia 372-2224			A preliminary document, WHC-SD-WM-RD-039, is being rewritten.	Wendell R.Wrzesinski 376-6751
Part B Permit Application	Robert D. Gustavson 373-5090 Joseph M. Jones 373-3492			In development	John M. Clark 376-2246
Evaporator Operations	Brian H. Von Bargen 373-1829				
Pretreatment	Mike Kupfer 376-6631 Jackie Mobley			Due 8/22/94	Rob A. Gilbert 372-0618

Handout 4 #4

Single-Shell Tanks
Interim Stabilization/Isolation

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

March 22, 1994

HLW Immobilization	To Be Determined			Due 9/06/94	George H. Sanders 376-6888
Environmental Reporting	To Be Determined				
Waste Acceptance (from outside Tank Farms)	To Be Determined				
Process Control	To Be Determined				
Waste Disposal	David C. Hetzer 372-3304				
LLW Immobilization	To Be Determined			Due 9/21/94	George H. Sanders 376-6888

ACCOMPLISHMENTS

- Milestone M-41-03A Completed

  Request for Proposal (RFP) for High-level Liquid Waste (HLLW) Cask Issued 2/23/94.

- Emergency pumping 241-BX-111 has transferred 71,780 gallons as of 2/28/94. Jet pumping of 241-BX-110 has transferred 4,337 gallons as of 2/28/94.

- Milestones M-41-01-T1, T2, & T3

  Work on preparation to pump 5 tanks in BY & C farms is ahead of schedule.

- Milestone M-41-09

  Field work started for preparation of 7 non-watch list tanks in S-Farm.

PLANNED ACTIVITIES

WORKING TPA MILESTONES

Prepare to emergency pump tank 241-T-111

Prepare to pump tanks 241-BY-102 and 109 (M-41-01-T3)

Prepare to pump tanks 241-C-102, 107, and 110 (M-41-01-T1)

Continue restoration of 244-U double-contained receiver tank (M-41-02-T2)

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

Prepare to pump 7 non-watch list tanks in 241-S farm (M-41-09-T1)

Provide the draft curriculum for the upgraded Maintenance Training Program and implementation schedule (M-41-06)

ISSUES/CONCERNS	CORRECTIVE/ACTION
Emergency Pumping 241-T-111 may remove resources from other activities.	Impacts to other programs and milestones being assessed. Impacts to TPA milestones will be negotiated.
OSD/IOSR evaluation has delayed pumping BX-111.	Review being completed.

Unit Managers Meeting

Tank 241-T-111 Assumed Releaker

D. B. Engelman

March 22, 1994

241-T-111: Assumed Re-Leaker

Background

Trending data

Photographs

Action Plan

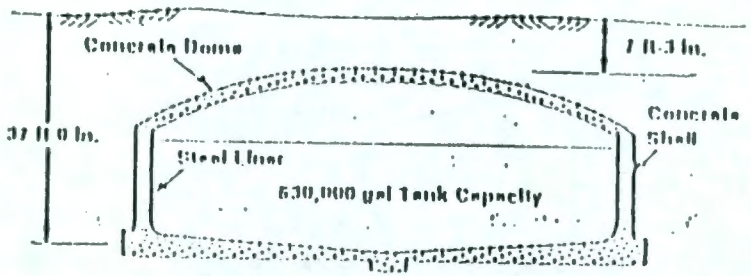
T-111 Background

Surface level gage (FIC) shows decrease

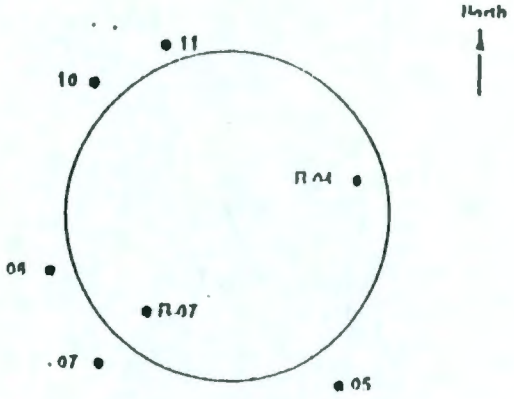
Liquid Observation Well (LOW) shows same decrease

Engineering evaluation completed, tank declared a "assumed re-leaker"
February 25

T-111 Background



75 ft Diameter Single-Shell Tank
Tank Farms: B, BX, C, T, U



Riser and Drywell Locations
Tank 241-T-111

Built 1944, out of service 1974

530,000 gallon capacity

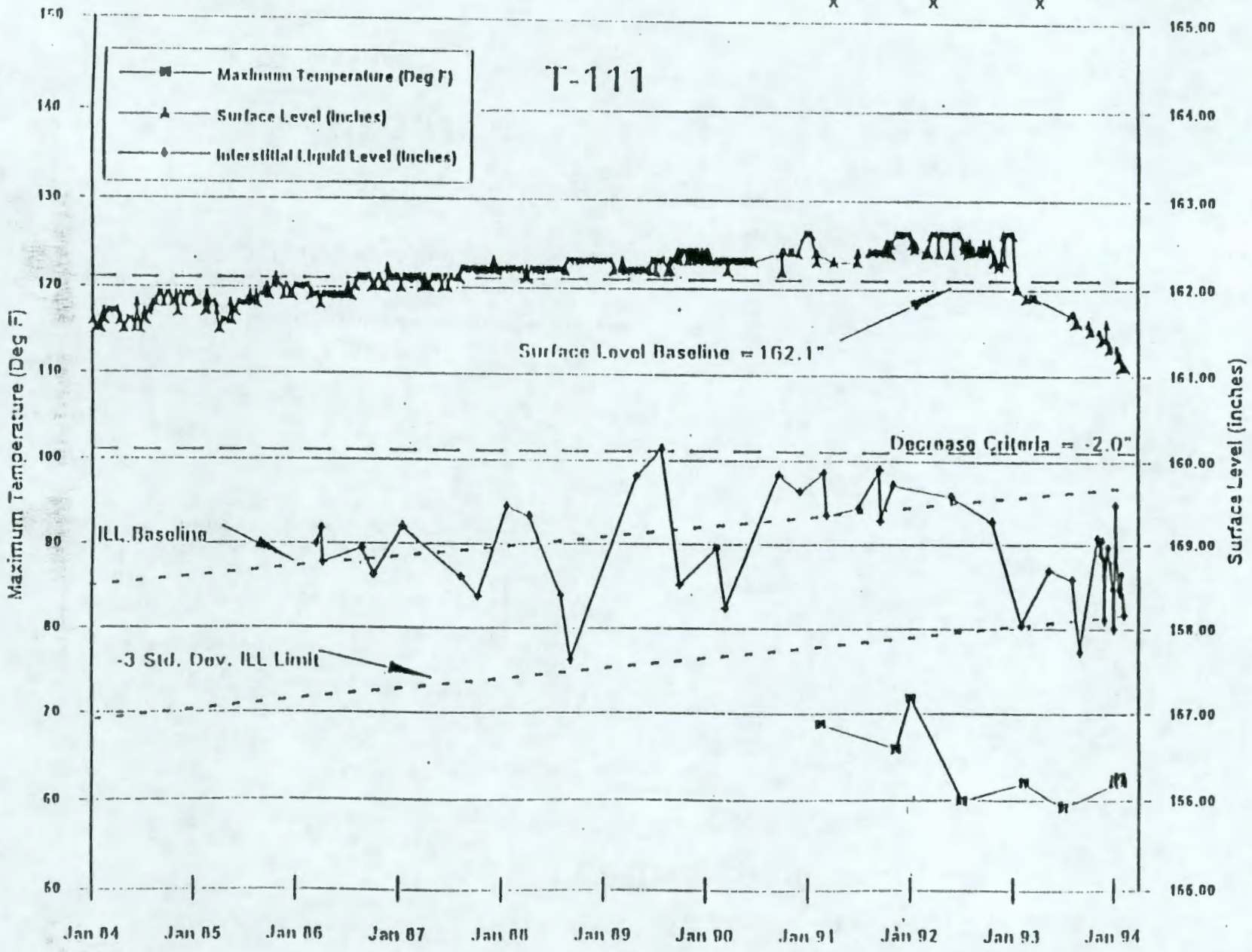
Contents: approximately 458,000 gallons waste

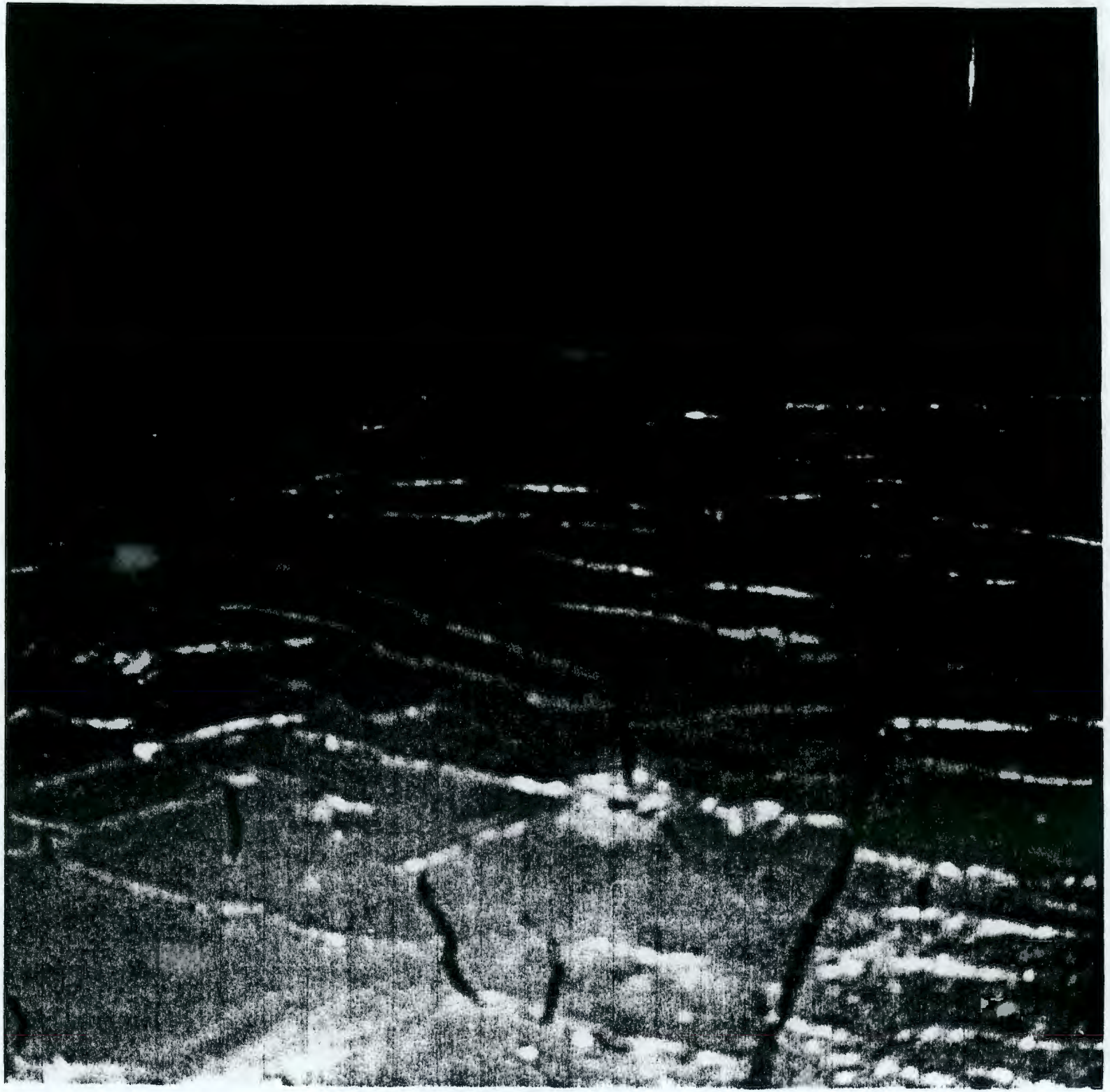
Photographs 1981, 1984

Tank temperature: 59°F (july 1993)

Retrieval Date
2/14/94

Data Quality: Good X Suspect X Transcribed X





Basis for Declaring T-111 an Assumed Re-Leaker

Surface level (FIC) gage shows decrease trend, with no reason to doubt its accuracy.

Liquid observation well (LOW) shows decrease trend that tracks the surface level trend.

Temperature and radionuclide and water content do not support an evaporation or gas retention explanation.

Tank sidewall appears to be corroded in photographs, and photograph evaluation shows no other likely theory for level decreases.

DRAFT

9513335.0504

Handout 6

#6

Change Number	Federal Facility Agreement and Consent Order Change Control Form Do not use blue ink. Type or print using black ink.	Date March 17, 1994

Originator
Guy E. Bishop/ D. B. Engelman

Phone
372-1856

Class of Change
[ ] I - Signatories [X] II - Project Manager [ ] III - Unit Manager

Change Title

Emergency Pump assumed re-leaking Tank 241-T-111

Description/Justification of Change

New interim milestones will be established to emergency pump assumed re-leaking single-shell tank 241-T-111.

M-41-20	Start emergency pumping (interim stabilization) of Tank 241-T-111	May, 1994
M-41-20-T1	Complete emergency pumping (interim stabilization) of Tank 241-T-111	March, 1995

This allows completion of all field repairs needed for emergency pumping this Tank. Work assumes that the Tank will not be re-classified as sound, and should this occur, changes to the milestone would be made.

This allows for commencement of pumping this Tank on an aggressive schedule, following resolution of safety issues known at this time. Schedule also assumes that transfer piping is intact.

The preparation to pump this Tank uses the same field resources presently allocated to the preparation work for milestone M-41-01-T01. Therefore, some delay in completion of this milestone is expected as a result of diverting these resources to the T-111 effort.

DRAFT

Impact of Change

The impact of this change request will add two new milestones. Both of these milestones will be completed by the dates indicated. This change will impact ~~or~~ interim and target milestones as shown below:

M-41-01-T01	Start to interim stabilize an additional 3 single-shell tanks.	Sept, 1994
M-41-01-T02	Complete interim stabilization of 5 single-shell tanks.	Dec, 1994

In addition, the outlying milestone to pump two non-Watch List tanks in T tank farm is affected in that T-111 will be pumped earlier than that milestone had anticipated. Therefore, change is made to this milestone as well:

M-41-16	Start interim stabilization of 1 non-Watch List tank in 241-T tank farm.	Mar, 1998
M-41-16-T01	Complete interim stabilization of 1 non-Watch List tank in 241-T tank farm.	Aug, 1998

Affected Documents

Hanford Federal Facility Agreement and Consent Order Action Plan, fourth Amendment, January, 1994, Appendix D (Table D-1 and Figure D-1 Work Schedule).

Approvals

_____ DOE	_____ Date	___ Approved	___ Disapproved
_____ EPA	_____ Date	___ Approved	___ Disapproved
_____ Ecology	_____ Date	___ Approved	___ Disapproved

DRAFT

#7

SST LIQUID LEVEL MONITORING AT HANFORD

BACKGROUND INFORMATION:

- SST's can be separated into two groups:
  1. tanks with a liquid surface in which an FIC will operate, and
  2. tanks which do not have a liquid surface, and so no FIC (or replacement) will work.

- SST's can also be separated into stabilized and unstabilized tanks.

  It must be recognized that there is no realistic means of responding to a leaking SST that has been stabilized, other than monitoring its leakage rate and path.

UNSTABILIZED SST'S

- There are 43 unstabilized SST's at Hanford. These are the tanks of greatest concern for leakage monitoring.

- There are 15 unstabilized tanks that have a liquid surface. For these tanks, the FIC/MT (or replacement) is the PRIMARY leak detection device (ie, that instrument relied upon to detect tank leakage in a timely manner).

- There are 23 unstabilized tanks that do not have a liquid surface. For these tanks, the LOW is the primary leak detection device. Of these, the LOW in Tank SX-104 is apparently inoperable.

- 3 unstabilized SST's- Tanks C-102, C-107, and C-110, have neither accurate FIC nor an installed LOW. These tanks will be stabilized in FY-1994.

- Tank C-105 is in the process of "self-stabilizing"- ie, the Tank is being allowed to dry itself out via its own internal heat.

- Tank BX-111 is being stabilized.

STABILIZED SST'S

- There are 106 stabilized SST's at Hanford.

- There are 16 small, "200-series" SST's in this group. This leaves 90 large, "100-series" SST's.

- 18 large, stabilized tanks have a liquid surface. For these tanks, the FIC/MT (or replacement) is the PRIMARY (ie, that instrument relied upon to detect tank leakage in a timely manner) leak detection device.

- 72 large, stabilized tanks do not have a liquid surface. For these tanks, the LOW is the primary leak detection device.

- 25 large, stabilized tanks have an LOW installed. Of these, two are inoperable or inaccessible.

- 12 large, stabilized tanks do not appear to have sufficient sludge and saltcake to allow an LOW to be installed for liquid level monitoring.

PRESENT STATUS:

- Substantial progress has been made toward improving the liquid level monitoring of the SST's.

  Administrative procedures have been revised to implement the following:

  (1) Daily monitoring of SST's with a liquid surface.

  (2) Weekly monitoring of SST's with LOW installed.

  (3) Designation of primary and back-up level instrumentation for each SST.

- This new system was shown to the WDOE in August, along with its technical basis. RL requested comments on this new monitoring approach, but has not received comments to-date.

  ▸ Further discussions with Scott McKinney and Steve Moore have been committed to by RL at the TPA UMM.

- Operational Specification Documents (OSD's) for liquid level monitoring are being prepared for all SST's. Specific monitoring and leakage criteria for each tank will be contained in the OSD's.

- WHC has completed a review of SST LOW data using two of the new evaluation techniques. No changes to tank integrity status resulted.

PRESENT STATUS, cont.

- RL informed WDOE previously (re, letter, Izatt to Roger Stanley, "Preventive and Contingency Planning at Tank 241-C-106", dated April 6, 1992) that liquid level in C-106 would be monitored using "confidence bands".

  In practice, these bands have not worked out as expected. They have not been able to provide an earlier detection of leakage from the Tank.

  Use of these bands was discontinued late last year. Decrease criteria for this Tank of 2" in 14 days remains in effect.

  The Tank FIC will be replaced this FY with the new Enraf device.

FUTURE PLANS:

- Intend to install new state-of-the-art liquid level indicators in the 15 unstabilized SST's that have liquid surfaces in FY-1994 (by 9/30/94).

- Intend to install 10 LOW's into selected SST's in FY-1994 (by 9/30/94).

- WHC has obtained liquid levels (via saltwell screens) for tanks C-102, C-107, and C-110.

- WHC is preparing to investigate the LOW in Tank SX-104, with the intention of obtaining some liquid level data. Tank safety issues have affected this.

- Evaluations will be conducted for additional in-tank leakage devices for appropriate tanks, that can be used pending installation of LOW's. Possible such additional means could include:

    1. Liquid level measurement taken from a saltwell screen (if installed.)

    2. Photography.

RL POSITION ON LIQUID LEVEL MONITORING:

- The unique, radioactive, and hazardous nature of the radioactive wastes in the SST's at Hanford constitute an exceptional, unprecedented challenge for providing accurate, timely leak detection.

- It appears that the tank drywells do not qualify as a "leak detection" device. Therefore, RL intends to remove the Drywells from leak monitoring purposes.
  However, the Drywells will continue to be used to track past leakage, and as an AID to provide further information on tank integrity.

- While laterals may provide better leakage information than do Drywells, they also do not qualify as a "leak detection" device. Therefore, RL intends to remove the laterals also from leak monitoring purposes.
  However, they also will continue to be used to track past leakage, and as an AID to provide further information on tank integrity.

- LOW's will continue to be installed as a primary leak detection device.

- For technical reasons, LOW's will not function in all SST's.

- While investigations are continuing, at this time there does not appear to be a replacement device for the LOW's.

- Therefore, the recognition must be made that as the SST stabilization program is completed, some stabilized tanks may end up without any valid leak detection instrumentation.

TRI-PARTY AGREEMENT MILESTONES

WASTE TANK SAFETY PROGRAM

STATUS REPORT AS OF: 03/17/94

#8

No.	Title	Due	Remarks
M-40-01	Complete Tank 241-SY-101 Low Speed Mixer Pump Test. (Interim to SI-2g21 - 09/94)	03/1994	On schedule. Draft report on Phase A and Phase B issued for review.
M-40-14	Close Ferrocyanide Unreviewed Safety Question. (SI-2s11 - 01/94)	03/1994	Ahead of schedule. Closure letter signed by DOE-HQ on 03/01/94. TPA milestone completion letter is in preparation.
M-40-16	Complete Sampling and Safety Evaluation of Liquid Organic in Tank 241-C-103. (SI-2q13 - 03/94)	03/1994	On schedule. All comments have been received and are being incorporated into the safety evaluation.
M-40-17	Close Tank 241-C-103 Unreviewed Safety Question. (SI-2j14 - 03/94)	05/1994	On schedule. Closure documentation is scheduled to be submitted to RL by 04/01/94.
M-40-11	Close the Unreviewed Safety Question for the Criticality Issue. (SI-2w15 - 03/94)	06/1994	Ahead of schedule. Closure letter signed by DOE-Q on 3/17/94.

M-40-13	Document 100% Design Completion of Permanent Mitigation Pump for Tank 241-SY-101. (Interim to SI 2e28 - 03/95)	07/1994	On schedule. Design work continues. The contract award was slipped 30 days due to QA issues. No impact on design schedules is anticipated. Cancellation and replacement of the permanent pump by an upgraded gout mitigation pump is under consideration.
M-40-06	Complete Vapor Sampling Characterization of Tank 241-C-103 (Phase 2) (SI-2m16 - 06/94)	08/1994	Ahead of schedule. Completed semi-quantitative analysis of Phase 2 vapor samples.
M-40-15	Install Gas Monitoring Equipment in the Remaining Five Potentially Flammable DSTs. (Interim to SI-2h34 - 04/95)	09/1994	On schedule. Design Criteria for installation (DST) issued. Installation design activities continue.

TRI-PARTY AGREEMENT MILESTONES

WASTE TANK SAFETY PROGRAM

STATUS REPORT AS OF: 03/17/94

M-40-02A	Develop Criteria for Upgrading Temperature Monitoring Capabilities in Ferrocyanide. (Interim to SI-2t25 - 12/94)	09/1994	On schedule. Preparing draft for submittal to DOE/WDOE by the end of March.
M-40-02B	Install Six of Twelve New Thermocouples. (Interim to SI-2t25 - 12/94)	09/1994	Ahead of Schedule. Thermocouple trees will not be installed in ferrocyanide tanks that have been removed from the Watch List. All work has been included in the integrated tank farm schedules.
M-40-02	Upgrade Temperature Monitoring Capabilities in Ferrocyanide Tanks. (SI-2t25 - 12/94)	04/1995	Ahead of schedule. (See M-40-02B)
M-40-04	Complete Removal of Floating Organic Layer from Tank 241-C-103. (SI-2u31 - 03/95)	06/95	Ahead of schedule. An engineering study on removal of the organic layer has been issued.

TRI-PARTY AGREEMENT MILESTONES
WASTE TANK SAFETY PROGRAM

STATUS REPORT AS OF: 03/17/94

M-40-07	Commence Operation of a Vapor Treatment System in Tank 241-C-103. (Interim SI-2n17 - 06/94)	06/1995	On schedule. The systems engineering analysis document has been completed (F&R document).
M-40-05	Complete Safety Alternative Test in High-Heat Tank 241-C-106. (SI-2x36 - 06/95)	09/1995	Ahead of schedule. Issued Process Test Plan/Procedures for contingency cooling test. USQ screening for the test was completed three weeks ahead of schedule.
M-40-03	Perform Vapor Characterization for all Ferrocyanide Watch List Tanks. (SI-2o35 - 06/95)	11/1995	Ahead of schedule. The first two tanks (105-C & 106-C) were sampled in February 1994. The third of these three cascading tanks (104-C) was sampled in early March.
M-40-08	Perform Vapor Characterization for all Organic Watch List Tanks. (SI-2o35 - 06/95)	11/1995	Ahead of schedule (See M-40-03)

M-40-10	Complete Vapor Space Monitoring of all Flammable Gas Generating Tanks.	01/1997	On schedule. (See M-40-15)
M-40-09	Close all Unreviewed Safety Questions (USQ) for Double-Shell & Single-Shell Tanks.	09/1998	On schedule. Three USQ are outstanding with the last one scheduled for closure in March 1995.
M-40-12	Resolve Nuclear Criticality Safety Issue.	09/1999	On schedule.
M-40-00	Mitigate/Resolve Tank Safety Issues for High Priority Watch List Tanks.	09/2001	On schedule.

Complete Closure of All Single Shell Tank Farms

Milestone M-45-00

W.R. Wrzesinski

March 22, 1994

1) M-45-01 Develop SST Retrieval Technology (September 1994)

   - Continuing on a path to provide documentation as per correspondence provided to fulfill milestone requirements.

2) M-45-03A Initiate Sluicing Retrieval of C-106 (October 1997)

   - Concurrence with the SST Part A permit Application modification submitted in December, 1993 needed from Ecology by April 1, 1994.
   - EPA and Ecology will be receiving 30% design review documentation in April.
   - CAA permitting, phase 1 applications sent out on February 17, to Ecology and Department of Health (DOH). NESHAPs submitted to EPA. Approvals received from DOH and EPA. Need approvals from Ecology by early April to support project accelerated schedule.
   - NEPA Environmental Assessment panel review week of March 14, 1994 to address all comments and provide ROD for RL approval. Review taking longer than anticipated. ROD to result in FONSI, Limited FONSI, or need for EIS by March 31, 1994.
   - Management review presentation, will provide from March 24, 1994 meeting.

3) M-45-03 T2 Initiate Final Retrieval Demonstration of C-106 (June 2002)

   - Management review presentation, will provide from March 24, 1994 meeting.

4) SST External Review Panel Closeout/Notebook

5) SST Closure/Corrective Action Workplan