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Meeting Minutes Transmittal/Approval
Unit Managers Meeting: Single Shell Tanks & Double Shell Tanks
2704HV/Room G206
200 East Area Hanford Site, Washington

May 9, 1995

Appvl: Wendell R. Wrzesinski, SST Unit Manager, DOE-RL **Date:** 10/27/95

Appvl: Scott McKinney, SST Unit Manager, WA Department of Ecology **Date:** 10-17-95

Appvl: EPA HAS DEFERRED APPROVAL TO ECOLOGY, PER KEVIN OATES' MESSAGE, 10/25/95
Kevin J. Oates, SST Unit Manager, EPA Region X **Date:**

Appvl: Casey O. Ruud, DST Unit Manager, DOE-RL **Date:** 10-17-95

Appvl: Laura J. Cusack, DST Unit Manager, WA Department of Ecology **Date:** 10/12/95

Appvl: Mardine P. Campbell, WHC, Coordinator Representative **Date:** 10-17-95

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 (M-42)
Handout 2 - Replacement of Cross-Site Transfer System (M-43)
Handout 3 - Tank Farm Restoration and Safe Operations - Project W-314 (M-43)
Handout 4 - Tri-Party Agreement Milestones (Waste Tank Safety Program, M-40)
Handout 5 - Status of High-Heat Program (M-40)
Handout 6 Project W-320 Air Chiller Design/Installation (M-40)
Handout 7 Schematics for Air Chiller Design/Installation (M-40)
Handout 8 Reach a Decision on How to Interim Stabilize Tank 241-C-103 (M-40-04-T01)

Handout 9	Status of TPA Milestones M-40-07, M-40-03, and M-40-08 (Vapor Characterization Update)
Handout 10	Double and Single-Shell Tank Characterization (M-44)
Handout 11	Double and Single-Shell Tank Characterization - Self-Imposed Work Suspension (M-44)
Handout 12	Single-Shell Tanks Interim Stabilization/Isolation (M-41)

Attachment 1

DOUBLE-SHELL TANKS/SINGLE-SHELL TANKS
UNIT MANAGERS MEETING

MEETING SUMMARY/SUMMARY OF ACTION ITEMS AND AGREEMENTS

May 9, 1995

Opening Remarks: Ms. K. Elsethagen opened the meeting and introductions were made.

M-42 Multi-Function Waste Tanks Facility (Jim Couey) [Handout 1]

Mr. J. Couey distributed the handout "Provide Additional Double-Shell Tank Capacity", and provided an update on MWTF.

To date, remaining M-42 milestones are either slipping or have slipped. This is due to the proposed cancellation of the MWTF project. DOE/HQ EM-36 has concurred with the RL recommendation for cancellation of the project, and has requested submission of a baseline change request.

A letter was issued dated April 23, 1995 to EPA and Ecology requesting approval of TPA change number M-42-95-01; deleting all M-42-00 milestones. Ecology will be reviewing the path forward studies used to support the technical basis document that accompanies the change package.

The path forward for the Safe Interim Storage EIS was finalized, with a Record of Decision due no later than November 20 1995. The preferred alternative was no new tanks. The draft SIS EIS is due out to Ecology for review in late July, 1995.

The Paulson Report was presented to the Hanford Advisory Board on April 6-7, 1995. The report recommended no new tanks in 200 East area, and the clean out of 102-SY in 200 West area. If clean out of 102-SY is not possible, alternative solutions include building small tanks to serve as staging areas for the tank waste, or transferring the waste through the cross-site transfer line. Ecology and EPA concurred with the recommendations of the Paulson Report.

Issues: Demobilization of ICF KH/WHC MWTF personnel has begun without EPA/Ecology approval of TPA Milestone change number M-42-95-01. MWTF project is expected to be reduced to 65 personnel by May 12, 1995.

M-43 CROSS-SITE TRANSFER LINE (Dennis Rewinkel) [Handout 2]

Mr. D. Rewinkel presented the status of the replacement of the Cross-Site Transfer System.

Planned Actions: WHC is scheduled to submit revision 1 of the Preliminary Safety Analysis Report for contractor (SEAC) review in May. The revision to the PSAR is scheduled to be submitted just prior to issuance of the final SIS EIS. Mr. N. Hepner (Ecology) was concerned that there were problems with the PSAR submittal date. Mr. Rewinkle pointed out that a white paper had been created, which was transmitted from WHC to RL for use as input in the FEIS. The submittal of the revised PSAR so close to the SIS EIS ROD necessitated the creation of the white paper.

The original PSAR for the project has already been released and approved. The PSAR scheduled to be submitted for approval in November is revision 1 of the original PSAR, and does not need to be approved prior to beginning of construction.

Special Topics: Discussions are continuing with Ecology regarding the legal requirement of WAC 173-303-640 on cathodic/corrosion protection for piping. A meeting was set up for May 10, 1995 to discuss the comment package for the pipeline, and the Shannon Wilson report.

Several technical studies were done beginning in March which looked at the scope of projects W-028 and W-058. A presentation had been given the week before, outlining the following proposals: 1) Taking out the B-Plant tie, in favor of a less costly option down the road for the clean out of B-Plant. That in turn will delete the 28 diversion box; 2) Deletion of the 28 tie to 151-AR, which will delete one of the connections to the 58 diversion box 3; 3) Deletion of diversion box 3 from current construction due to the undefined location of IPM; and 4) Acceleration of the project through deletion of diversion box 2 and the second pump from the project scope. The capability of installing the diversion boxes and ties will remain, should they be needed in the future. These proposals are currently under review. The basis documents for technical justification of the above proposals will be coming out probably over the month of May.

The Definitive Design TPA milestone M-43-07-T01 scheduled to be complete in August, 1995 will be missed. A discussion followed between Ecology and RL concerning the requirements for Start of Construction. It was agreed that Key Decision 3, Definitive Design, and the SIS EIS ROD were needed prior to Start of Construction. Currently RL does not foresee problems with obtaining KD-3 or Definitive Design before the scheduled ROD on November 20, 1995.

M-43 Tank Farm Upgrades (Mark Ramsay) [Handout 3]

Mr. M. Ramsay distributed the handout "Tank Farm Restoration and Safe Operations", and provided an update on Tank Farm Upgrades.

New Proposed Milestones - "08": Page 4 of the handout contains the M-43-08 milestones which effectively combined the M-43-02, -04, -05 and -06 milestones. This was the TPA Milestone change control form that was submitted to Ecology and is currently at the dispute resolution committee level for consideration.

Accomplishments: The preliminary Design Requirements Document was signed off in March.

Planned Actions: Project authorization and start of conceptual design is expected by May 15, 1995. Mr. N. Hepner asked if the start date for conceptual design is on schedule. A discussion followed in which RL informed Mr. Hepner that late breaking strategies on the scope of project W-314 might jeopardize the May 15, 1995 "Start of Conceptual Design" date.

Mr. Hepner left the meeting at this point, and the Tank Farm Upgrades presentation ended.

M-40 Safety (Gary Dukelow) [Handout 4]

Mr. G. Dukelow distributed a handout, and provided an update on the Safety Program Tri-Party Agreement Milestones.

M-40-02: Risers for thermocouple tree installation in the five remaining ferrocyanide tanks, that do not interfere with characterization, have been tentatively identified. A visual inspection of the identified risers will be necessary to ensure they are straight, unobstructed, etc. The risers on Tank BY-105 and -108 will be inspected. The Safety Program is proceeding with work package preparations for two of the five tanks.

M-40-02B: TPA Milestone M-40-02B "Install Two of Seven New Thermocouple Trees" was completed on April 13, 1995. The two thermocouple trees were installed into tanks TY-104 and -107.

> **Action:** Mr. A. Stone (Ecology) requested the Safety Program to contact the cognizant engineer for tanks TY-104 and -107, in order to set up an Ecology inspection of the tanks (G. Dukelow - not specified).

M-40-09: A Chemical Reaction Sub-TAP Committee review on the SY Farm Unreviewed Safety Questionnaire (USQ) closure recommendation occurred on May 2-3, 1995. The Safety Program's tactic in the fall of 1994 was to change the USQ closure to include all of SY farm. The Sub-TAP Committee recommended separation. Documentation is being revised to resolve the SY-101 USQ first, and the SY-103 USQ second.

M-40-12: The baseline safety screening DQO recently changed the analyses from total alpha to total Pu, and hydroxide. This change will be reflected in the next series of TCPs.

M-40-00: One additional sample from tank C-111 is required to complete C Farm sampling, and support an early resolution of the C Farm portion of the ferrocyanide safety issue. Acquiring push mode samples from tank C-111 has been difficult due to shallow depth, crumbly waste, and obstructions.

Input to the Characterization Program is being provided to get selected ferrocyanide tanks requiring sampling on the schedule. Three to four tanks, in addition to C Farm, remain to be sampled. One sample is required from TY Farm, and 3 to 4 samples are required from BY Farm. The ferrocyanide safety issue is expected to be resolved sometime in 1996.

M-40 Safety (Continued)
Presentation by R. J. (Bob) Cash "Status of High-Heat Program" [Handout 5]

M-40-05: TPA Milestone M-40-05 "Complete Safety Alternative Test and Define a New Safe Operating Envelope for Tank C-106" was concluded in June of 1994. While the test was originally supposed to last about a year, and numerous problems shortened it, WHC believes enough information was obtained to define a new safety envelope.

Tank C-106 - Air Chiller Installation: The Chemical Reaction Sub-TAP Committee has recommended installation of the Retrieval Program's air chiller in Tank C-106 as soon as possible. Due to procurement lead times, as soon as possible translates to October, fiscal year 1996. Mr. A. Stone was of the understanding that the air chiller would be installed much sooner. Future options include installation of a spray system to aid in evaporative cooling upon occurrence of a non-coastline leak.

A discussion followed on the determination of a coastline leak in a tank versus a non-coastline leak. Ecology believes a non-coastline leak is indeterminable. The Safety Program believes that through manipulation of liquid levels, rates of evaporation, and liquid level decrease rates, a moderate to substantial non-coastline leak could be detected.

Tank C-105: A discussion on the moisture content for core 76 indicated possible implications for the safety screening Data Quality Objectives (DQOs). Mr. R. Cash indicated the results of the test were due to questionable PNL lab techniques. Mr. A. Stone requested an update of the moisture content issue in the future.

Action: Provide an update on the moisture content of core samples from Tank C-105 (R. Cash - not specified).

M-40 Safety (Continued)
Presentation by J. P. (John) Harris "Status of Project W-320 Air Chiller Design/Installation" [Handouts 6 & 7]

Mr. John Harris gave an update on the W-320 C-106 sluicing project. The discussion centered on chiller design and installation. There are two alternatives to pursue for the chiller installation. A waiver from the KD-3 could be sought for the air chiller only. Or, a change request could be submitted to allow the Safety Program to transfer the air chiller to Operations as a safety issue mitigation. This would be like a maintenance activity separate from the project and therefore would not require a waiver. No firm commitment date for the installation of the air chiller was made. Mr. A. Stone requested a future update on the installation schedule.

Action: Provide an update on the schedule for air chiller installation in Tank C-106 (Safety Program - not specified)

M-40 Safety (Continued)
Presentation by J. M. (Mike) Grigsby "Reach a Decision on how to Interim Stabilize Tank 241-C-103" [Handout 8]

Mr. M. Grigsby provided an update on the interim stabilization of tank C-103. The discussion centered around the organic layer in the tank. Several options for dealing with the organic layer were discussed. The recommended option is to proceed with interim stabilization with the organic layer in place. Continuing with the recommended option would lead to a TPA Milestone change package for the deletion of TPA Milestones M-40-04 and M-40-04-T02 "Complete Removal of Floating Organic Layer". Mr. A. Stone stated that Ecology did not agree with the recommended option. Mr. Stone also stated that Ecology preferred Option 3 "Skimming and transfer of most of the organic solvent to a suitable DST with subsequent salt well pumping of remaining pumpable liquids to a different DST". Ecology will review the issue further.

M-40 Safety (Continued)
Presentation by J. W. (Jerry) Osborne "Status of TPA Milestones M-40-07, M-40-03, and M-40-08" (Vapor Characterization Update) [Handout 9]

Mr. J. Osborne distributed handout 9, and provided an update for vapor characterization.

M-40-07: TPA Milestone M-40-07 is for the design, fabrication and installation to commence operation of a vapor treatment system in tank C-103. Originally it was thought the problem in the tank was organic based, and a type of activated carbon treatment system was to be used. Characterization of the vapor in tank C-103 revealed the problem was ammonia. The Safety Program proceeded with a stack design, which is complete. Fifty percent of acceptance testing is complete, with the rest to be finished by June 15, 1995.

M-40-03: As vapor sampling and characterization of the ferrocyanide watch list tanks has proceeded, the number of tanks on the list has decreased from 24 to 20, and then to 18. Analysis of the tank TY-104 vapor sample will complete the sampling and characterization portion of the milestone. Completion of the milestone is expected to be ahead of schedule by a couple of months.

M-40-08: This milestone originally included only 9 organic watch list tanks. One of the tanks is also a ferrocyanide watch list tank. These 9 original tanks are group "A". Later in the program, 10 additional tanks were added to the list. These tanks are in group "B". The addition of the 10 organic watch list tanks may impact the TPA Milestone due date of November 11, 1995.

M-44 DST/SST Characterization (Wen-Shou Liou) [Handout 10]

Mr. W. Liou distributed the handout "Double and Single-Shell Tank Characterization", and provided the status of characterization sampling, the Tank Waste Analysis Plan, Tank Characterization Reports, and sample analysis.

Issues: Funding difficulties are restricting the activities in the 325 Laboratory. All funding is not yet available in order to decide if the 325 Laboratory will be kept open.

WHC initiated a self-imposed temporary suspension of sampling activities on April 12, 1995, as a result of a Operating Specification Document (OSD) violation. Corrective actions have been taken, and vapor and auger sampling have resumed.

Riser availability for characterization purposes in SSTs continue to be a problem. The study for installation of new risers in SSTs was completed. The activity is unfunded, but should not impact the program for the first 2 to 3 years.

Action: Mr. A. Stone requested the cost of riser installation in the SSTs (Characterization Program - not specified).

The Riser Availability Survey has not been completed due to a lack of resources. The survey needs to be performed by the sampling crews, who are currently inundated with sampling activities. The riser availability survey will be done a few weeks before the "need" date.

Action: Provide verification of the Riser Availability Survey to A. Stone when completed (M. Payne - not specified).

Presentation by T. J. (Tom) Kelley "Double and Single-Shell Tank Characterization - Self-Imposed Work Suspension" [Handout 11]

Mr. T. Kelley distributed the handout on the Self-Imposed Work Suspension, and provided details on its basis and the resulting corrective action plan.

M-41 SST Interim Stabilization/Isolation (Tom Rainey) [Handout 12]

Mr. T. Rainey provided an update on Interim Stabilization/Isolation Program including activities and milestones.

Pumping Status: A transfer line in C Farm is plugged, and there are jumper and valve repairs needed on tank BY-109. The transfer lines were pressure tested up to 200 pounds in the last year. Up to 165 pounds of pressure are used to free up clogs. Clogs in transfer lines occur from increasing density in the bottom of the tanks due to removal of liquids. Possible alternatives include using a water lance, or an overground pipeline transfer.

Issue: The MWTF SST Content Document (WHC-OSD-W236A-ES-012 Rev. 0) estimated the porosity in salt cake at 60 percent instead of 40 percent. This leads to a re-estimation of waste volume in the tanks, which will affect the amount of time needed to pump the tanks. Tank A-101 currently is the tank with the longest pumping time of approximately 1000 days. Pumping will begin on this tank in April 1996.

SINGLE-SHELL TANKS/DOUBLE-SHELL TANKS
UNIT MANAGERS MEETING
2704HV/G-108
MAY 9, 1995

AGENDA			
Begin Time	End Time	Subject	Presenter
9:00	9:10	DST Permitting Update	Kelly Elsethagen
9:10	9:40	M-42 Multi-Function Waste Tanks	Jim Couey
9:40	10:10	M-43 Cross-Site Transfer Lines	Gae Neath
10:10	10:20	Break	N/A
10:20	10:50	M-43 Tank Farm Upgrades	Mark Ramsay
10:50	11:20	M-40 Safety	Gary Dukelow
11:20	11:40	Vapor Characterization Update	Jerry Osborne
11:40	11:50	Break	N/A
11:50	12:20	M-44 Characterization	Jim Thompson
12:20	12:50	M-41 Interim Stabilization	Tom Rainey

SINGLE-SHELL TANKS/DOUBLE-SHELL TANKS
UNIT MANAGERS MEETING
2704HV/G-206
~~APRIL 11, 1995~~
May 9, 1995

Name	Organization	MISN	Phone
Kelly Elsethagen	TWRSEC	R1-52	3-1378
GREG PARSONS	PROJ	B4-08	2-0115
CURT LEWIS	WHC	B4-08	3-6647
Steve Lijek	GSSC/PRI	S7-71	373-7946
LINDA BANKS	DOE/TWP	B4-08	376 1465
CRAIG WEST	DOE/TWP	S7-52	3 7542
Albert Toth	DOE/TOP	S7-54	372-2366
Jim Couey	DOE-TWP	S7-52	6-1457
GIL M. RAMIN	DOE-RL	B4-08	372-0657
DENNIS REWINKEL	GSSC	S7-72	372-0760
Stephen Bradley	DOE-RL-TWP	S7-52	376-7333
Casey Ruud	DOE-RL-TOP	S7-54	373-3478
Alex Stone	Ecol.	B5-18	736-3018
Alisa Huckaby	Ecology	B5-18	736-3034
Michael Cline	WHC/ES	H6-24	376-7957
NORM HEPNER	ECOLOGY	B5-18	736-3048
LOREN V. COSSACK	ECOLOGY	B5-18	736-3038
MEL LAKEY	TWRSEE	R1-51	3-0043
Kathy Knox	WHC	H6-23	372-3596
Lucinda Borneman	WHC	R2-06	373-2521
Bill Jenkins	WHC	S2-24	373-2009
Greg Morgan	DOE-RL-TOP	S7-54	373-2346
DENNIS IRBY	DOE-RL	S7-54	376-5652
WENDELL WRZESINSKI	DOE-RL	S1-54	316-6151
John Harris	WHC	S2-48	372-1237
DAVE TURNER	WHC-WTSP		373-2238
GARY DUKELOW	WHC-WTSP	S7-15	373-4479

SINGLE-SHELL TANKS/DOUBLE-SHELL TANKS
UNIT MANAGERS MEETING
2704HV/G-206
APRIL 11, 1995

Name	Organization	MISN	Phone
Russ HAKWOOD	RL	57-54	376-2348
J. Mike GRIGSBY	GJP Consulting		627-2425
C H Mulkey	WHC	R1-51	373-0956
Edward J. Lipke	WHC	57-15	373-9834
Mary Jarvis	DOE-RL	57-54	376-4550
C.J. Geier	WHC	R2-36	373-5617
Carolyn Haass	DOE RL	57-51	372-2731
Luis Soler	D&M/GSSC	B1-42	946-3680
Fred Hernandez	RL-CHD	57-54	376-2220
Tom Kanney	WHC-ISP	R2-54	373-3531
Judy G. Burton	WHC-ISP	58-05	373-2869
[illegible]	[illegible]		509-736 3213

PROVIDE ADDITIONAL DOUBLE-SHELL TANK CAPACITY

MILESTONE M-42-00

J. E. Couey
RL, MULTI-FUNCTION WASTE TANK FACILITY
PROJECT OFFICE

May 9, 1995

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 05/94)
- **M-42-01-T2** Initiate construction of the MWTF 200W Area tanks. 09/94 (slipped)

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 (slipped)

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

Accomplishments

- Received letter dated April 13, 1995 from EM-36 concurring with RL recommendation to cancel MWTF project and requesting submission of Baseline Change Request.

- Issued letter dated April 23, 1995 to EPA/Ecology requesting approval of TPA change number M-42-95-01 deleting all M-42-00 milestones.

- Began demobilization of IFC KH/WHC MWTF project personnel; total staffing will be reduced to approximately 65 personnel by May 12, 1995.

- Technical Tasks were completed and reports are in the process of being released.

Accomplishments (continued)

- Path forward for Safe Interim Storage EIS finalized with Record of Decision due no later than November 20, 1995; preferred alternative is no new tanks.

Planned Actions (Next Three Months)

- Obtain EPA/Ecology approval to delete all M-42-00 milestones.
- Finalize MWTF project demobilization plan.
- Submit Baseline Change Request to DOE-HQ recommending cancellation of MWTF project.

Issues

- **Demobilization of MWTF project personnel is currently underway without EPA/Ecology approval of TPA change number M-42-95-01; however, MWTF project can be ramped up if necessary, but all remaining M-42-00 milestones are being adversely impacted at this time.**

Cost/Schedule Assessment (in thousands)

	Current Period Mar. 27 - Apr. 30	Percent	Cumulative to Date	Percent
Budget Cost Work Scheduled (BCWS)	5,710.0		77,744.9	
Budget Cost Work Performed (BCWP)	1,576.5		50,406.9	
Actual Cost Work Performed (ACWP)	1,694.3		51,244.7	
Variances:				
Schedule	(4,133.5)	72%	(27,338.0)	35%
Cost	(117.8)	6%	(837.8)	2%

As of end of April 1995

Variance Explanation

Cost

Current period and cumulative variances are the result of Title II work which is behind due to skill mix problems, and applying resources to various studies not identified in Title II scope.

Schedule

Current period and cumulative variances are due to delays in completing the SIS-EIS (lack of construction activity).

REPLACEMENT OF CROSS-SITE TRANSFER SYSTEM

PROJECT 93-D-182 (W-058)

GAE M. NEATH
RL, TANK WASTE PROJECTS

May 9, 1995

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.

GMN/TWP/May 9, 1995

Accomplishments (Last three months)

- Obtained HQ delegation for approval of (Design Only) Long Lead Procurement Waiver, March 1995.
- Held briefings with Defense Nuclear Facility Safety Board staff (February/March 1995) and Hanford Advisory Board, February 1995.
- Performed 60% Design Review, February 1995.
- Project Validation Presentations were held for Fiscal Year 1997 funding, March 1995 with resultant "Recommended for Validation".

Planned Actions (Next three months)

- Award Design Only Long Lead Procurement Contracts (Monitor Control System and Pumps), May 1995 and June 1995, respectively.

- Continue evaluation of scope, initiated in March 1995, evaluating impact of potential deletion of the Multi-Function Waste Tank Facility Project, i.e., transfer line routing, diversion boxes, instrumentation, pump configuration, etc., due May,1995.

- WHC Submittal of Revision of original PSAR (Rev-1) Preliminary Safety Analysis Report revision for SEAC review, May 1995 and DOE review, May 1995.

- Continue Title II Design

GMN/TWP/May 9, 1995

Planned Actions (Next three months) - Continued.

- Continue support for Safe Interim Storage - Environmental Impact Statement. (ROD 11-20-95)

GMN/TWP/May 9, 1995

Special Topics

- Continue discussions with WDOE regarding the legal requirement by WAC 173-303-640 on cathodic/corrosion protection for piping.

- Scope, schedule and cost are currently being revised, for review, independant of the Multi-Function Waste Tank Facility. This integration has previously delayed the design schedule. TPA milestone M-43-07-T01, Design Completion, will be missed. RL initiation of a TPA Change Request will result from this review.

- Schedule delays of the Long Lead Procurement Waiver and the Environmental Impact Statement could impact remaining TPA Milestones. Project alternatives continue to be evaluated.

GMN/TWP/May 9, 1995

Special Topics (Continued)

- **Cost/Schedule Assessment**

Note: Dollars in Thousands.	Current Period March 1995	Cumulative to Date	At Completion
Budget Cost Work Performed (BCWP)	277.9	5368.9	52700.0
Budget Cost Work Scheduled (BCWS)	1328.8	7666.8	52700.0
Actual Cost Work Performed (ACWP)	402.5	5816.5	52700.0
Variances:			
Costs	-124.6	-447.6	0.0
Schedule	-1050.9	-2297.9	0.0

Note: The Cost variance is due to the PSAR revision and the preoperational testing costs (soils). The Schedule variance is a resultant of the integration with MWTF, resolution of technical issues, delay in KD2 approval, and delay in the initiation of procurement.

TANK FARM RESTORATION AND SAFE OPERATIONS

PROJECT W-314

FY 1996 Major System Acquisition

M. L. Ramsay
RL, Tank Waste Projects Division

May 9, 1995

C:\WPDATA\UNITMM14.52

TPA Milestones M-43-02, -04, -05, and -06
Tank Farm Restoration and Safe Operations

Milestone Description

- M-43-02 Complete Project W-314B Double Shell Tank Ventilation Upgrades - June 2002

S - M-43-02A Provide WDOE and DOH the Conceptual Design Report - May 1995
S - M-43-02-T06 Receive DOE-HQ project validation to request congressional funding - June 1995
- M-43-02-T07 Start Definitive Design for W-314B - January 1997
- M-43-02-T08 Complete Definitive design for W-314B - January 1999
- M-43-02-T09 Start construction of W-314B - March 1999
- M-43-02B Complete construction of W-314B - December 2001
- M-43-02C Start Operation of W-314B - June 2002

- M-43-04 Complete Project W-314A Tank Farm Integrated Instrumentation System Upgrades - June 2002

S - M-43-04A Provide WDOE and DOH the Conceptual Design Report - May 1995
S - M-43-04-T05 Receive DOE-HQ project validation to request congressional funding - June 1995
S - M-43-04-T06 Start Definitive Design for W-314A - January 1996
- M-43-04-T07 Complete Definitive design for W-314A - November 1998
- M-43-04B Provide WDOE and DOH an integrated level 3 construction schedule - December 1998
- M-43-04-T08 Start construction of W-314A - December 1998
- M-43-04C Complete construction of W-314A - December 2001
- M-43-04D Start operation of W-314A - June 2002

TPA Milestones M-43-02, -04, -05, and -06
Tank Farm Restoration and Safe Operations

Milestone Description (continued)

- M-43-05 Complete Project W-314C Transfer System Upgrades - June 2004

  - M-43-05A Provide WDOE the project Conceptual Design Report - May 1996
  - M-43-05-T06 Receive DOE-HQ project validation to request congressional funding - June 1996
  - M-43-05-T07 Start Definitive Design for W-314C - January 1998
  - M-43-05-T08 Complete Definitive design for W-314C - November 2000
  - M-43-05-T09 Start construction of W-314C - March 2000
  - M-43-05B Complete construction of W-314C - December 2003
  - M-43-05C Start operation of W-314C - June 2004

- M-43-06 Complete Project W-314D Tank Farm Electrical Upgrades - June 2004

  - M-43-06A Provide WDOE the project Conceptual Design Report - May 1997
  - M-43-06-T06 Receive DOE-HQ project validation to request congressional funding - June 1997
  - M-43-06-T07 Start Definitive Design for W-314D - January 1999
  - M-43-06-T08 Complete Definitive design for W-314D - October 2001
  - M-43-06-T09 Start construction of W-314D - March 2001
  - M-43-06B Complete construction of W-314D - December 2004
  - M-43-06C Start operation of W-314D - June 2005

TPA Milestones M-43-02, -04, -05, and -06
Tank Farm Restoration and Safe Operations

New Proposed Milestones-"08"

•	M-43-08	Complete Project W-314 Tank Farm Restoration and Safe Operations Major Systems Acquisition - June 30, 2005
	- M-43-08-T01	Receive DOE-HQ Project Validation to Request Congressional Funding for W-314 - June 30,1996
	- M-43-08-T02	Start Definitive Design for W-314 - January 31, 1997
	- M-43-08-T03	Complete Definitive Design for W-314 - June 30, 2004
	- M-43-08-T04	Provide the Washington State Department of Ecology and Department of Health, and EPA an - December 31,1998 Integrated Level 3 Schedule showing all phases of project construction for Project W-314, which shall provide the basis for estsblishing additional construction milestones
	- M-43-08-T05	Start construction of W-314 - December, 31, 1998
	- M-43-08-T06	Complete construction of W-314 - December 31, 2004
	- M-43-08-08A	Provide the Washington State Department of Ecology and Department of Health, and EPA the - May 31, 1996 design configuration baseline for project W-314
	- M-43-08-08B	Validate target milestone dates (in order to convert to interim milestones) for project - July 31, 1996 W-314 design and construction activities based upon the completed design configuration baseline.
	- M-43-08-08C	Complete turnover of all W-314 systems to operations - June 30, 2005

TPA Milestones M-43-02, -04, -05, and -06
Tank Farm Restoration and Safe Operations

Accomplishments

- Completed and approved the preliminary Design Requirements Document (PDRD).
- RL Conceptual Design SOW and issued April 7, 1995
- Obtained Key Decision 0, and authorization to proceed with conceptual design.
- Submitted TPA milestone change control form which converted -02, -04, -05, and -06 milestones to -08 milestones.

TPA Milestones M-43-02, -04, -05, and -06
Tank Farm Restoration and Safe Operations

Planned Actions (Next 6 Months)

- Complete replanning strategy for conceptual design.
- RL to have project authorization by May 15,1995.
- Start of conceptual design by May 15, 1995.
- Renegotiate TPA milestones.
- Finalize NEPA Strategy
  - EA-Instrumentation, Ventilation, and Electrical upgrades
  - EA or EIS-Waste Transfer

TPA Milestones M-43-02, -04, -05, and -06
Tank Farm Restoration and Safe Operations

Special Topics

- Concerns
  - The delay in obtaining DOE-HQ approval of Key Decision 0 has now gone past the point where TPA schedule is recoverable. The following milestones will be slipped: Completion of conceptual design (M-43-02A and M-43-04A), and DOE validation of project funding (M-43-02-T06 and M-43-04-T05). Letter to WDOE was submitted in October 1994. A change request was also recently submitted to WDOE on March 28, 1995, and subsequently disapproved by WDOE and will be handled by the Dispute Resolution Committee.

TPA Milestones M-43-02, -04, -05, and -06
Tank Farm Restoration and Safe Operations

- A one year schedule delay to the project is now reality. This will result in target milestone M-43-04-T07 "Start Definitive Design for W-314A" being slipped from January 1996 to January 1997. Impacts to completing Definitive Design by November 1998 (M-43-04-T07) are uncertain.

- "design-only" validation at this point remains uncertain. The potential exists that definitive design can not start until FY 98 rather than FY 97 as currently planned.

TRI-PARTY AGREEMENT MILESTONES

WASTE TANK SAFETY PROGRAM

STATUS REPORT AS OF: 04/30/95

FY 1994 TPA milestones -- 9 of 9 scheduled (100%) were completed on or ahead of schedule.
FY 1995 TPA Milestones -- 1 of 1 milestone has been completed ahead of schedule.
4 remaining milestones; 3 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	Completed 04/13/95 ⊕	Completion of this TPA milestone was documented by WHC in a letter to RL dated April 13, 1995. 101-TY 104-TY

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.	05/15/95	●	The safety documentation supporting the decision was transmitted to DOE-RL on March 10, 1995. It was recommended to stabilize the tank with the organic in place. The organic would be pumped to a DST along with the aqueous. A decision document has been completed which summarizes the rationale for the WHC recommendation.
M-40-07	Commence Operation of a Vapor Treatment System in Tank 241-C-103. (Interim SI-2n19 - 06/94)	06/95	●	Fabrication of the vapor/air dilution treatment system was completed and acceptance testing is underway. Field testing is scheduled to begin in June.
M-40-02	Upgrade Temperature Monitoring Capabilities in Ferrocyanide Tanks.	09/95	●	Risers for TC tree installation have been tentatively identified that do not interfere with characterization of the remaining tanks but some must be visually inspected to ensure their availability. BY-Farm
M-40-05	Complete Safety Alternative Test in High-Heat Tank 241-C-106. (SI-2x38 - 06/95)	09/95	⊕	The air-chiller design study report was completed. This design report constitutes the technical basis of the leak contingency action plan, expected to be completed in May.
M-40-03	Perform Vapor Characterization for all Ferrocyanide Watch List Tanks. (SI-2o37 - 06/95)	11/95	⊕	All eleven ferrocyanide tanks scheduled for characterization in FY 1995 have been sampled. The tank characterization reports are on schedule.

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

No.	Title	Due	Status	Remarks
M-40-08	Perform Vapor Characterization for all Organic Watch List Tanks. (SI-2o37 - 06/95)	11/95	⊕	On schedule. All original nine (Group A) organic watchlist tanks have been sampled in FY 1995. In addition, 7 of 11 Group B organic watchlist tanks have been sampled to date.
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	⊕	Installation was completed of flammable gas monitors in all flammable gas Watch List tanks. Calibration of the units is in progress.

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

No.	Title	Due	Status	Remarks
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 latest SY Farm USQ closure recommendation letter was sent to DOE-RL on April 26, requesting review and approval. A Sub-TAP review of the issue is scheduled for May 2.
M-40-12	Resolve Nuclear Criticality Safety Issue.	09/99	●	A strategy is in work for resolving this safety issue. The baseline safety screening DQO was recently revised to enhance the criticality related analyses.
M-40-00	Mitigate/Resolve Tank Safety Issues for High Priority Watch List Tanks.	09/01	●	Inputs have been made to the characterization schedule that would complete C Farm sampling and support an early resolution of the C Farm portion of the ferrocyanide safety issue.

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

Status of High-Heat Program

presented to

Washington Department of Ecology

by

R. J. (Bob) Cash
Westinghouse Hanford Company
May 9, 1995

Tank 241-C-106

ISSUE: Tank C-106 heat load (110,000 BTU/hr) requires forced ventilation and evaporative cooling to keep waste temperatures below 350 °F safety limit

- M-40-05: Complete Safety Alternative Test and Define a New Safe Operating Envelope for Tank C-106

  - Due September 30, 1995; Status: On Schedule

- Safety Initiative 2x: Complete process test on C-106; issue report on process test results and an alternative contingency system design

  - Due June 30, 1995; Status: On Schedule

  - Process test completed in June 1994; test report in final review

  - Contingency system and plan to be completed and transmitted to DOE by May 31, 1995

Tank 241-C-106 (Continued)

- Future Options:
  - High-Heat Safety Program installs chiller system yet in FY 1995
  - Funding Change Request for separate funding or from W-320 Project
  - Evaluate whether spray system should be installed as well

Tank 241-C-105

- Push-mode core samples taken in mid-March 1995

  - Two risers; 3 segments (Core 72 and Core 76)

- Energetics exceeded on Core 72, Segment 2, Upper Half Solids

  - 524 J/g (dry basis) - one attempt; 170 J/g on duplicate:

  - Extrusion report showed over 70 g of drainable liquid for this segment

- Moisture content below 17 wt% for Core 76, Segment 2, Upper and Lower Half Solids

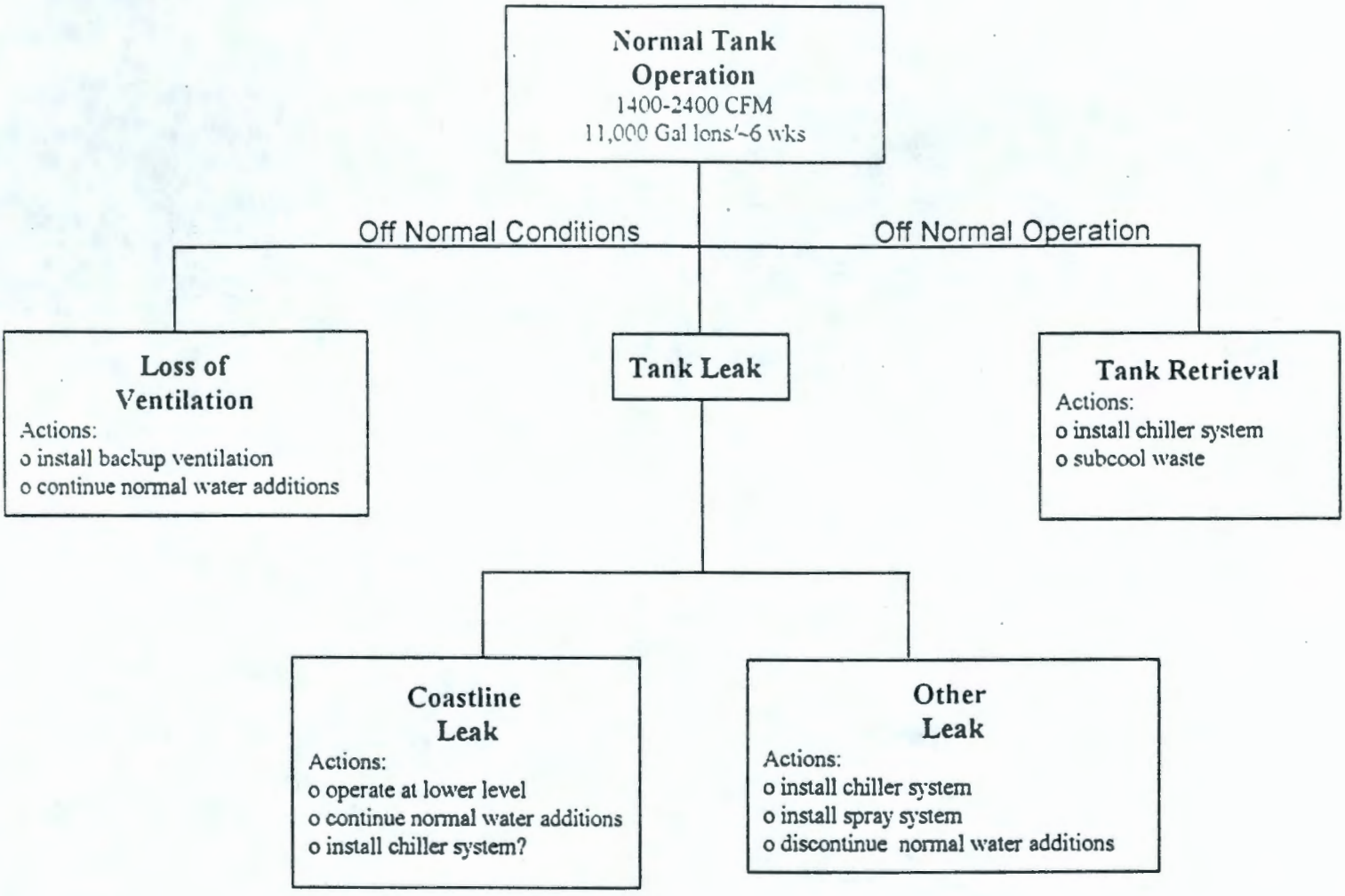
  - 12.5 wt% and 30.7 wt% for two trys on upper half solids

  - 4.5 wt% and 4.3 wt% for two trys on lower half solids

  - Extrusion report showed over 164 g of drainable liquid for this segment

- These results are not of concern

Summary of Proposed Mitigating Actions

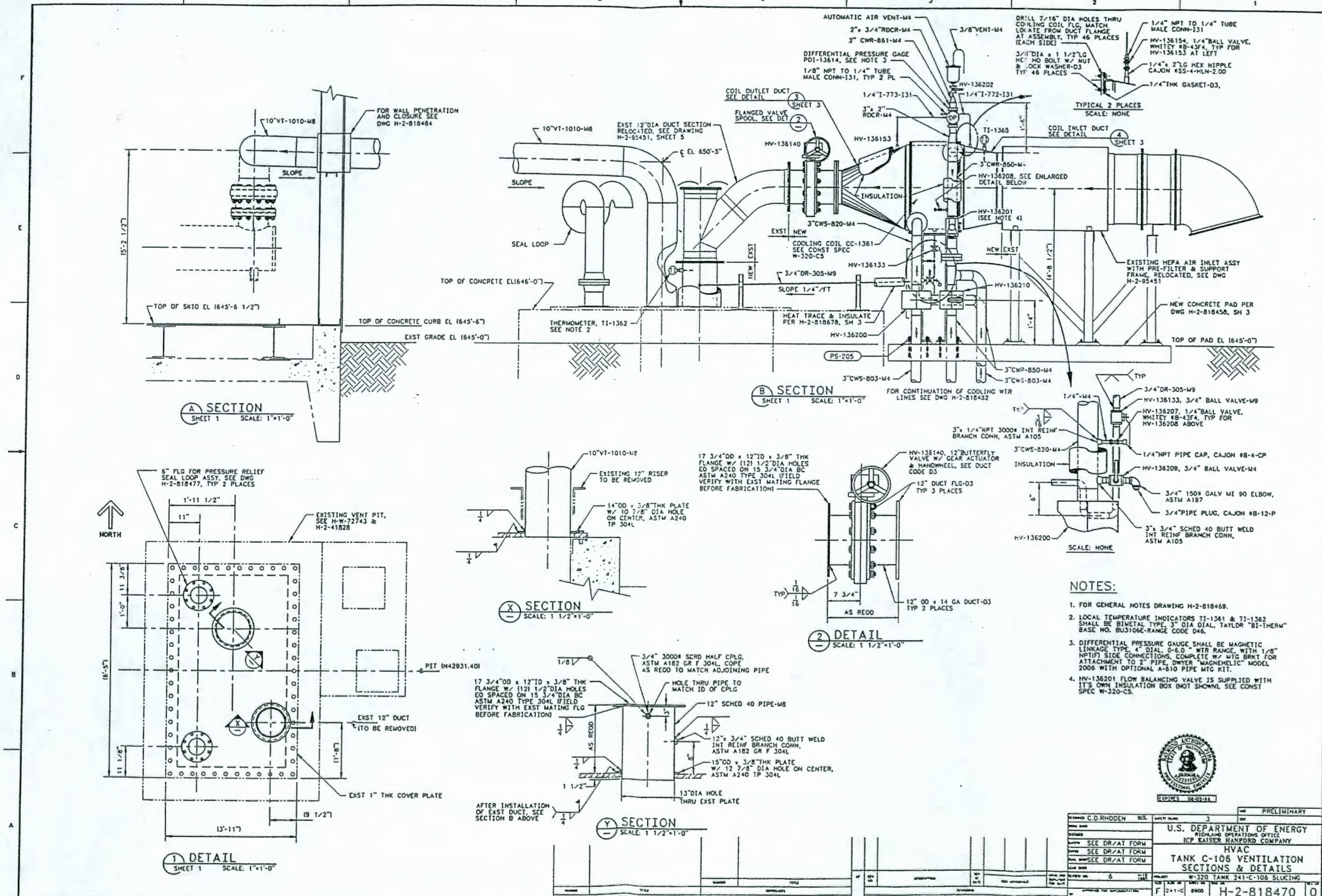


Project W-320 Air Chiller Design/Installation

- W-320 currently scheduled to initiate sluicing retrieval of C-106 in October, 1996
- Due to procurement lead times, ventilation system installation is one of the last construction items
  - Air chiller installation included in Ventilation System Readiness Review package (summer/fall, 1996)
- To accelerate installation of air chiller system design, WHC/DOE-RL investigating alternatives
  - Accelerate installation of W-320 chiller;
    - Requires obtaining KD 3 waiver and Phase II air permits
    - Design presently provides modifications to meet tank cooling requirements in addition to air stream cooling
  - Transfer W-320 chiller design to Operations for installation on tank C-106 as soon as possible
  - * requires funding re-allocations which are being investigated

have gone out for bid

Change Request to be submitted to RL by early June. Time frame from CR to installation should be by end of June, early July. Have to get waiver from J. Wagner for KD3.



A SECTION
SHEET 1 SCALE: 1"=1'-0"
10"VT-1010-M8
FOR WALL PENETRATION AND CLOSURE SEE DWG H-2-818484
SLOPE
TOP OF SKID EL (645'-6 1/2")
TOP OF CONCRETE CURB EL (645'-6")
EXST GRADE EL (645'-0")
B SECTION
SHEET 1 SCALE: 1"=1'-0"
EXST 12"DIA DUCT SECTION RELOCATED, SEE DRAWING H-2-95451, SHEET 5
SEAL LOOP
TOP OF CONCRETE EL(646'-0")
THERMOMETER, TI-1362 SEE NOTE 2
AUTOMATIC AIR VENT-M4
DIFFERENTIAL PRESSURE GAGE PDI-13614, SEE NOTE 3
COIL OUTLET DUCT SEE DETAIL
FLANGED VALVE SPOOL, SEE DET
HV-136140
HV-136153
INSULATION
COOLING COIL CC-1361 SEE CONST SPEC W-320-C5
HV-136133
HEAT TRACE & INSULATE PER H-2-818678, SH 3
HV-136200
PS-205
FOR CONTINUATION OF COOLING WTR LINES SEE DWG H-2-818482
COIL INLET DUCT SEE DETAIL
EXISTING HEPA AIR INLET ASSY WITH PRE-FILTER & SUPPORT FRAME, RELOCATED, SEE DWG H-2-95451
NEW CONCRETE PAD PER DWG H-2-818458, SH 3
TOP OF PAD EL (645'-0")
TYPICAL 2 PLACES
SCALE: NONE
1 DETAIL
SHEET 1 SCALE: 1"=1'-0"
NORTH
EXISTING VENT PIT, SEE H-W-72743 & H-2-41828
PIT (N42931.40)
EXST 12" DUCT (TO BE REMOVED)
EXST 1" THK COVER PLATE
X SECTION
SCALE: 1 1/2"=1'-0"
EXISTING 12" RISER TO BE REMOVED
Y SECTION
SCALE: 1 1/2"=1'-0"
AFTER INSTALLATION OF EXST DUCT, SEE SECTION B ABOVE
12" SCHED 40 PIPE-M8
2 DETAIL
SCALE: 1 1/2"=1'-0"
AS REQD
12" OD x 14 GA DUCT-D3 TYP 2 PLACES
SCALE: NONE
PRELIMINARY
U.S. DEPARTMENT OF ENERGY
RICHLAND OPERATIONS OFFICE
ICF KAISER HANFORD COMPANY
HVAC
TANK C-106 VENTILATION
SECTIONS & DETAILS
W-320 TANK 241-C-106 SLUICING
H-2-818470
C.D.RHODEN
SEE DR/AT FORM
PLOT SCALE: 1=12
KEMCAD

NOTES:

1. FOR GENERAL NOTES DRAWING H-2-818469.
2. LOCAL TEMPERATURE INDICATORS TI-1361 & TI-1362 SHALL BE BIMETAL TYPE, 3" DIA DIAL, TAYLOR "BI-THERM" BASE NO. BU3106E-RANGE CODE 046.
3. DIFFERENTIAL PRESSURE GAUGE SHALL BE MAGNETIC LINKAGE TYPE, 4" DIAL, 0-6.0 " WTR RANGE, WITH 1/8" NPT(F) SIDE CONNECTIONS, COMPLETE W/ MTG BRKT FOR ATTACHMENT TO 2" PIPE, DWYER "MAGNEHELIC" MODEL 2006 WITH OPTIONAL A-610 PIPE MTG KIT.
4. HV-136201 FLOW BALANCING VALVE IS SUPPLIED WITH IT'S OWN INSULATION BOX (NOT SHOWN), SEE CONST SPEC W-320-C5.

9613390.0665

AIRSTREAM CONDITION ASSUMPTIONS:

① 95 FDB, 95 FWB, 100+% RH, -1.50" w.g.

② 40 FDB, 40 FWB, 100% RH, 36% CONDENSATE REENTRAINMENT (13,049 mg/m³ MIST)

③ 77 FDB, 60 FWB, 37% RH

④ 53 FDB, 47 FWB, 60% RH

⑤ 80 FDB, -1.00" w.g.

NOTES:

1. SEE DWG H-2-818558 FOR P & ID SYMBOLS AND LEGEND.
2. SEE DWG H-2-818561 FOR DETAILED P & ID SHOWING DUCT CODE/PIPE CODE BREAKS. SEE H-2-818478 FOR DETAILED PROCESS FLOW DIAGRAM AND AIRSTREAM CHARACTERIZATION INFORMATION.
3. HEME AND HEMF ARE SHIELDED AND WILL BE PROVIDED WITH FLUSH CAPABILITIES.
4. CONDENSER CONDENSATE, MOISTURE SEPARATOR DRAIN ALONG WITH HEME AND HEMF FLUSH WATER WILL BE RETURNED TO TANK C-106 THROUGH RISER R4 IN THE SLUICE PIT. AIR INLET COOLING COIL CONDENSATE WILL DRAIN BACK TO TANK C-106 UNDER THE HATCHWAY PLATE/RISER R15.
5. STANDARD REFERENCE FOR SCFM DEFINED AS CUBIC FEET PER MINUTE OF 70 FDB, BONE DRY AIR AT 14.696 PSIA.
6. PORTABLE EXHAUSTER NOT PROVIDED BY PROJECT W-320, ONLY PORTABLE EXHAUSTER HOOKUP IS PROVIDED.
7. CASCADE LINE BETWEEN C-105 AND C-106 IS ASSUMED TO BE OPEN. CASCADE LINE BETWEEN C-104 AND C-105 MAY HAVE BEEN ISOLATED.
8. EXISTING EXHAUSTER AND AIR INLET REMAIN CONNECTED AND VALVED OFF FROM TANK 241-C-106 DURING SLUICING OPERATIONS.
9. PIPING SYSTEM WILL MEET ALL THE APPLICABLE REQUIREMENTS OF ASME/ANSI B31.3.
10. W-320-P1 PORTION OF EXHAUST SKID WILL MEET ALL THE APPLICABLE REQUIREMENTS OF ASME N509/N510.
11. DUCT CODE D3 WILL MEET ALL THE APPLICABLE REQUIREMENTS OF ASME N509/N510.
12. PIPE CODE AND DUCT CODE DETAILS ARE INCLUDED IN THE PROJECT CONSTRUCTION SPECIFICATIONS.
13. SYSTEM DESIGNED TO SAFETY CLASS 3 BASED ON OPERATIONAL CONTROL OF THE AIRSTREAM SOURCE TERM TO A MAXIMUM OF 202 MICROCURIES PER METER CUBED.

BUILDING PORTABLE EXHAUSTER HOOKUP

BUILDING SAMPLE PORTS

HVAC DUCT M8 D3 M8

8"ø 860 SCFM

RECIRCULATION FAN

HEATING COIL

SEE NOTE 11

PROCESS PORTABLE EXHAUSTER HOOKUP

HVAC DUCT NEW EXST

EXISTING C-106 AIR INLET SEE NOTE 8 (REFERENCE H-2-818561-1)

COOLING COIL

TO EXST EXHAUSTER SEE NOTE 8

NEW PIPING

EXST TANK SYSTEM

3"ø CWS

3"ø CWS

3"ø CWR

3"ø CWR

10"ø 1040 TO 1220 SCFM NORMALLY 1090 SCFM

NEW PIPING

CONDENSER

HEME

HEMF

BYPASS

6"ø

MS

PROCESS BUILDING

(REFERENCE H-2-818561 SH 3, 4, & 5)

PROCESS SAMPLE PORTS

PIPING M8 HVAC DUCT

TO ATMOSPHERE

HVAC DUCT PIPING

TEST SECTION HEPA TEST SECTION HEPA TEST SECTION

EXHAUST FAN

180 TO 360 SCFM NORMALLY 230 SCFM

STACK

STACK RADIATION MONITORING

EXHAUST SKID

(REFERENCE H-2-818561 SH 6 & 7) SEE NOTE 10

120 TO 250 SCFM INFILTRATION NORMALLY 170 SCFM THROUGH 3 PITS

NEW TANK SYSTEM

PRESSURE RELIEF SEAL LOOPS (SAFETY CLASS 1) (REF H-2-818559-7)

R2 12"

R15

TANK 241-C-106

EXISTING EXHAUSTER CONTINUES TO OPERATE

INFILTRATION

3" CASCADE LINE 110 SCFM MAX NORMALLY 60 SCFM

TANK 241-C-105

INFILTRATION

SEE NOTE 7

TANK 241-C-104

EXST TANK SYSTEM NEW PIPING

CONDENSER

3"ø CWR

3"ø CWS

PROPYLENE GLYCOL SYSTEM

CHILLER SKID

(REFERENCE H-2-818561 SH 2)

INSIDE "C" FARM | OUTSIDE "C" FARM

H-2-818423 DRAWING LIST

B818468A 2B IBM ACD2-17.0 NN

PRELIMINARY

PH LANGOWSKI

SEE DR/AT FORM

SEE DR/AT FORM

SEE DR/AT FORM

U.S. DEPARTMENT OF ENERGY
RICHLAND OPERATIONS OFFICE
ICF KAISER HANFORD COMPANY

HVAC
OVERALL FLOW DIAGRAM

W320, 241-C-106 SLUICING

H-2-818468

ER4319

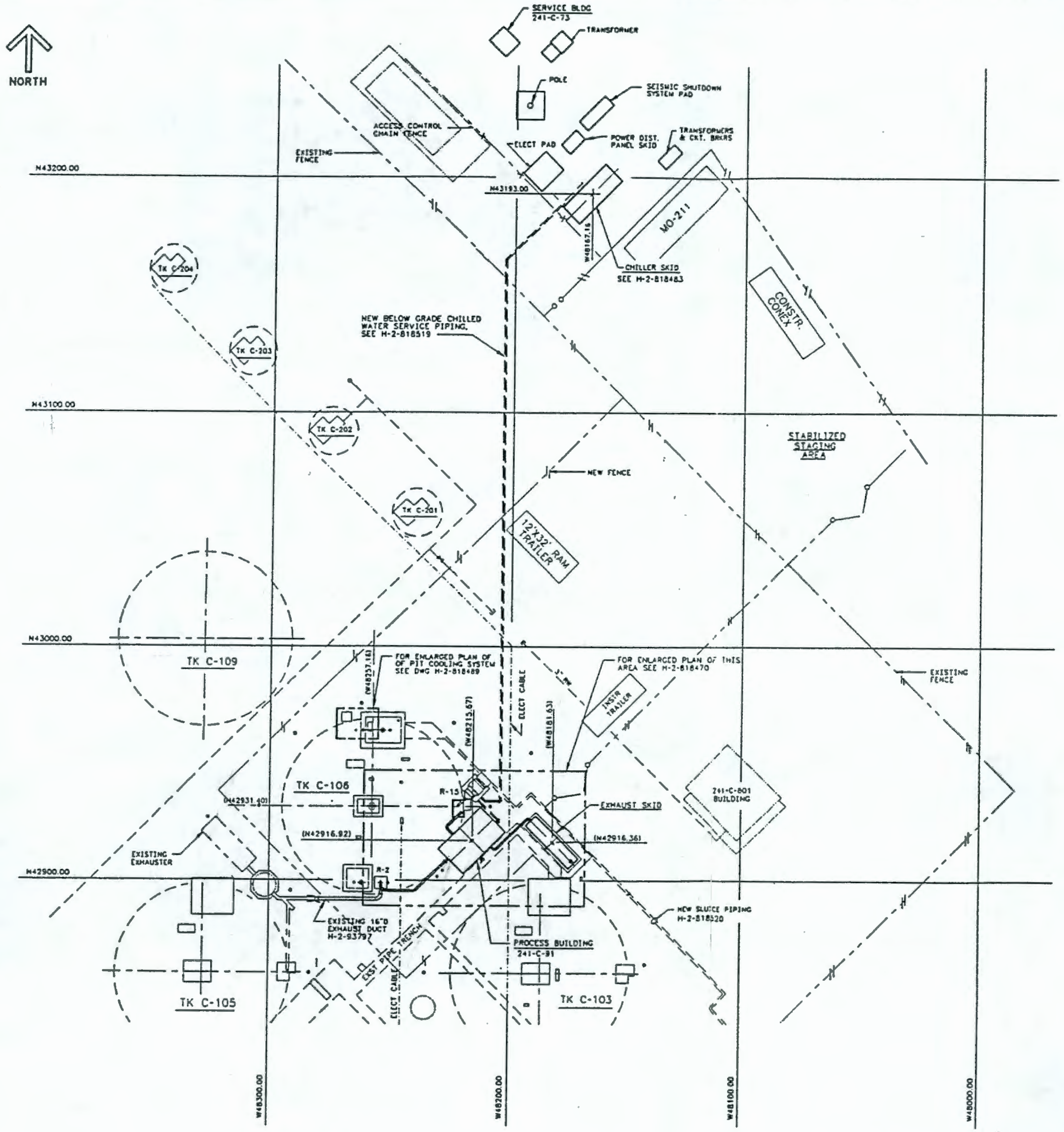
WHC

NONE

PLOT SCALE: 1=1

KEMCAD

9613390.0666



GENERAL NOTES:

1. ALL MATERIALS, FABRICATION, INSPECTION & TESTING SHALL BE IN ACCORDANCE WITH CONSTRUCTION SPECIFICATION W-320-CS.
2. TOLERANCES, UNLESS OTHERWISE NOTED, SHALL BE:
   FRACTIONAL ± 1" PIPE LOCATIONS
   ± 2" ON PIPE SUPPORT LOCATIONS
   ± 1/4" ON PIPE ELEVATIONS
   ± 1/16" ON HOLE DIAMETERS
   ± 1/8" ON ALL OTHER
   ANGULAR ± 1°
3. SEAL LOOPS, SEE DWG H-2-818477, SHALL BE SAFETY CLASS 1, ALL OTHER MATERIAL AND CONSTRUCTION SHALL BE SAFETY CLASS 3.
4. ALL EXPOSED CARBON CARBON STEEL SURFACES SHALL BE PAINTED IN ACCORDANCE WITH CONSTRUCTION SPEC W-320-CS.
5. ALL BUTT WELD ELBOWS ARE LONG RADIUS UNLESS OTHERWISE NOTED. PIPE BENDS (RADIUS = 5 x NOM PIPE DIA) MAY BE USED IN LIEU OF BUTT WELD ELBOWS WHERE SPACE ALLOWS.
6. ALL VALVES & COMPONENTS SHALL BE IDENTIFIED IN ACCORDANCE WITH CONST SPEC W-320-CS.
7. FOR EQUIPMENT SEE THE FOLLOWING PROCUREMENT SPECIFICATIONS:
   CHILLER SKID------- SEE W-320-P2
   EXHAUST SKID------- SEE W-320-P1
8. BREAK ALL SHARP EDGES & REMOVE ALL BURRS.
9. WHERE GALVANIZED COATING OF METAL HAS BEEN DAMAGED BY WELDING, CUTTING, FORMING OR WITH FASTENERS, THE BARE METAL SHALL BE CLEANED AND FINISHED WITH A COLD GALVANIZED COATING.

EXPIRES 08-03-93

H-2-818423 SH 7	DRAWING LIST

PRELIMINARY

J.JURGILEWICZ

SAFETY CLASS 1

SEE DR/AT FORM
SEE DR/AT FORM
SEE DR/AT FORM

U.S. DEPARTMENT OF ENERGY
RICHLAND OPERATIONS OFFICE
ICF KAISER HANFORD COMPANY

HVAC
OVERALL C-FARM SITE PLAN
TANK C-106

18

W320 TANK 241-C-106 SLUICING

F	241-C	8900	H-2-818469	0

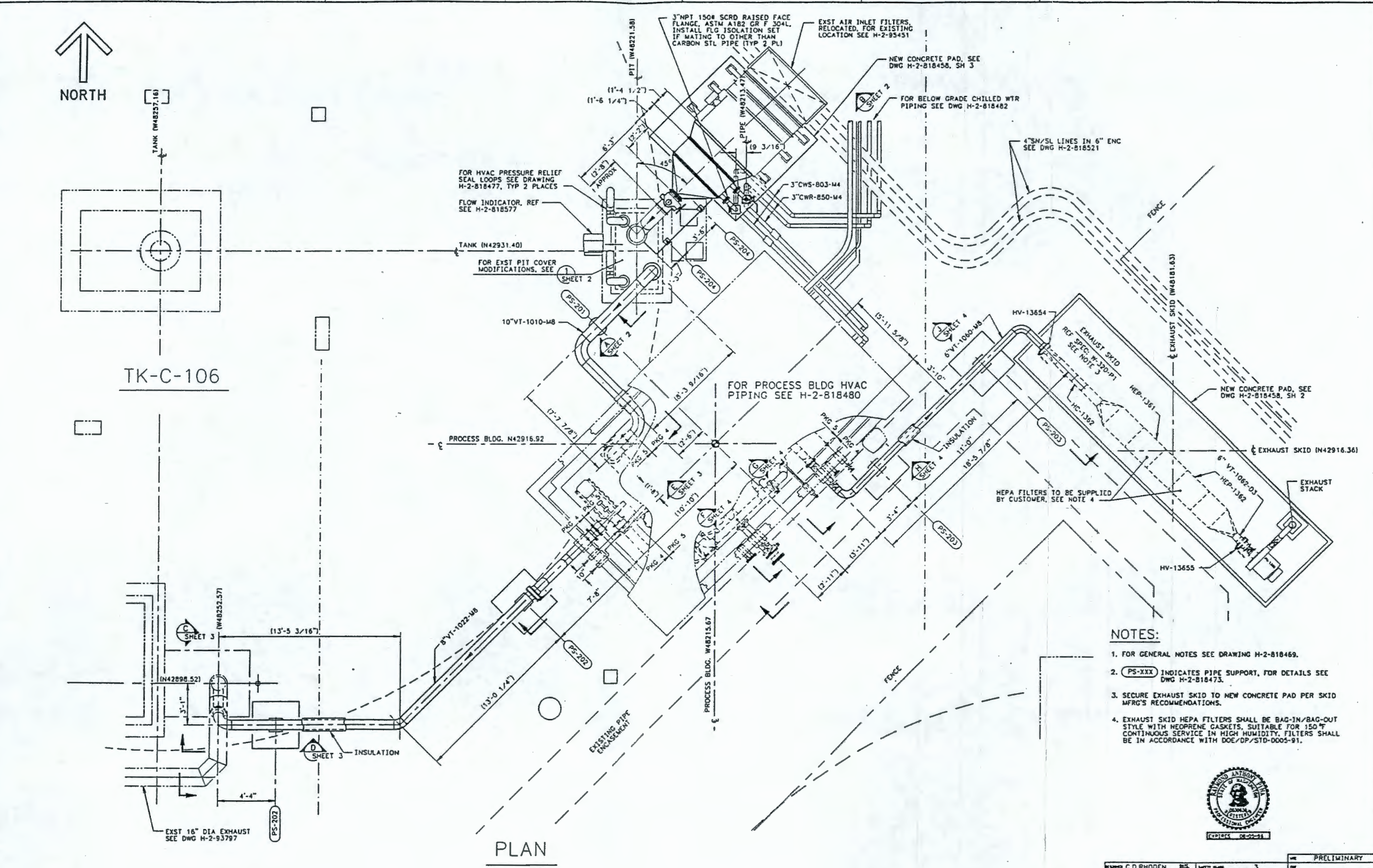
WHC

SCALE 1"=20'-0" ER4319 SHEET 1 OF 1

BS18469A 2B:IBM ACD: 12.0 NN

2 PLOT SCALE: 1=20 KEHCAD 1

9613390.0667


NORTH
TK-C-106
PLAN
3"NPT 150# SCRD RAISED FACE FLANGE, ASTM A182 GR F 304L, INSTALL FLG ISOLATION SET IF MATING TO OTHER THAN CARBON STL PIPE (TYP 2 PL)
EXST AIR INLET FILTERS, RELOCATED. FOR EXISTING LOCATION SEE H-2-95451
NEW CONCRETE PAD, SEE DWG H-2-818458, SH 3
FOR BELOW GRADE CHILLED WTR PIPING SEE DWG H-2-818482
4"SN/SL LINES IN 6" ENC SEE DWG H-2-818521
FOR HVAC PRESSURE RELIEF SEAL LOOPS SEE DRAWING H-2-818477, TYP 2 PLACES
FLOW INDICATOR, REF SEE H-2-818577
3"CWS-803-M4
3"CWR-850-M4
TANK (N42931.40)
FOR EXST PIT COVER MODIFICATIONS, SEE
10"VT-1010-M8
FOR PROCESS BLDG HVAC PIPING SEE H-2-818480
PROCESS BLDG. N42916.92
EXHAUST SKID
HV-13654
HV-13655
NEW CONCRETE PAD, SEE DWG H-2-818458, SH 2
EXHAUST SKID (N42916.36)
EXHAUST STACK
HEPA FILTERS TO BE SUPPLIED BY CUSTOMER. SEE NOTE 4
INSULATION
8"VT-1022-M8
EXISTING PIPE ENCASEMENT
FENCE
EXST 16" DIA EXHAUST SEE DWG H-2-93797

NOTES:

1. FOR GENERAL NOTES SEE DRAWING H-2-818469.
2. (PS-XXX) INDICATES PIPE SUPPORT. FOR DETAILS SEE DWG H-2-818473.
3. SECURE EXHAUST SKID TO NEW CONCRETE PAD PER SKID MFRG'S RECOMMENDATIONS.
4. EXHAUST SKID HEPA FILTERS SHALL BE BAG-IN/BAG-OUT STYLE WITH NEOPRENE GASKETS, SUITABLE FOR 150°F CONTINUOUS SERVICE IN HIGH HUMIDITY. FILTERS SHALL BE IN ACCORDANCE WITH DOE/DP/STD-0005-91.

H-2-818423 SH 7 DRAWING LIST

PRELIMINARY

C.D.RHODEN

SAFETY CLASS 3

SEE DR/AT FORM
SEE DR/AT FORM
SEE DR/AT FORM

U.S. DEPARTMENT OF ENERGY
RICHLAND OPERATIONS OFFICE
ICF KAISER HANFORD COMPANY

HVAC
TANK C-106 VENTILATION
PLAN

PROJECT W-320 TANK 241-C-106 SLUCING

F | 241-C | 8900 | H-2-818470 | 0

SCALE 3/8"=1'-0" | ER4319 | SHEET 1 OF 4

WHC

8818470A | 28:18M ACD2 12 0 NN

PLOT SCALE: 1=32 | KEHCAD

REACH A DECISION ON HOW TO INTERIM STABILIZE TANK 241-C-103

TPA MILESTONE M-40-04-T01

UNIT MANAGERS MEETING

MAY 9, 1995

MIKE GRIGSBY

TPA MILESTONE M-40-04-T01

REACH A DECISION ON HOW TO INTERIM STABILIZE 241-C-103 BY MAY 15, 1995

STATUS: SAFETY ANALYSIS AND EVALUATION OF ALTERNATIVES COMPLETED

RECOMMENDATION IS TO INTERIM STABILIZE WITH THE LAYER IN PLACE

MILESTONE CHANGE PACKAGE TO DELETE MILESTONES M-40-04-T-02 and M-40-04 IS BEING PREPARED

TANK 241-C-103 - BACKGROUND

TANK HAZARDS INVOLVED:

1. SOLVENT FIRE HAZARD (DEGRADED PUREX SOLVENT LAYER)
   - o SOLVENT FIRE POTENTIAL WAS DECLARED A USQ
   - o TANK CHARACTERIZATION AND SAFETY ANALYSIS ADEQUATE TO CLOSE USQ
2. TOXIC VAPOR EXPOSURE HAZARD
3. SOIL CONTAMINATION IF THE TANK LEAKS (133,000 GALS DRAINABLE LIQUIDS)

HOW TO RESOLVE SAFETY ISSUES?
WHAT TO DO WITH THE ORGANIC LAYER?

EVALUATION OF ALTERNATIVES PREPARED - WHC-EP-0862 - BASED ON ENGINEERING STUDIES AND SUPPLEMENTAL SAFETY ANALYSES

OPTION 1 - NO ACTION (RELATIVE TO PUMPING)

OPTION 2 - TRANSFER OF ORGANIC SOLVENT AND PUMPABLE AQUEOUS LIQUIDS TO A DST USING EXISTING SALTWELL PUMPING EQUIPMENT AND PROCEDURES

OPTION 3 - SKIMMING AND TRANSFER OF MOST OF THE ORGANIC SOLVENT TO A SUITABLE DST WITH SUBSEQUENT SALT WELL PUMPING OF REMAINING PUMPABLE LIQUIDS TO A DIFFERENT DST

OPTION 4 - SKIMMING AND STORAGE OF MOST OF THE ORGANIC SOLVENT IN AN ABOVE GROUND STORAGE CONTAINER WITH SUBSEQUENT SALT WELL PUMPING OF REMAINING PUMPABLE LIQUIDS TO A DST

EVALUATION CONSIDERED VARIOUS CRITERIA

- o PUBLIC HEALTH AND SAFETY (ACCIDENT RISK)
- o OCCUPATIONAL SAFETY
- o ENVIRONMENTAL COMPLIANCE
- o ENGINEERING/OPERATIONAL FEASIBILITY
- o COST

EACH OPTION RATED AGAINST CRITERIA - HIGHEST TOTAL RATING IS RECOMMENDED OPTION

PUBLIC HEATH AND SAFETY
(ACCIDENT RISK)

SOLVENT FIRE RISK IS VERY LOW:

- o Solvent fires are difficult to ignite
- o Limited headspace oxygen extinguishes fires before severe consequences can result
- o Risk is similar for all options
  - Some solvent left for all options
  - Only 60 kgs can burn (18 gals)

WASTE TRANSFER ACCIDENTS CAN BE MITIGATED TO WITHIN RAGS

OCCUPATIONAL SAFETY IMPACTS

TOXIC GAS EXPOSURES:

GASES GENERATED IN AQUEOUS LIQUID AND SLUDGES

- Ammonia and organic species not expected to be mitigated by solvent removal or interim stabilization
- Vapor mitigation addressed by other means if required (e.g., vapor mixing system)

ALL PUMPING OPTIONS HAVE SIMILAR IMPACTS (i.e., probably none)

FEASIBILITY

OPERABILITY - C-103 liquids not suitable for evaporation

IMPLEMENTATION - Additional development, design and procurement needed for skimming and separations technology

D&D/Site Cleanup - Pre-treatment not designed to handle separable organics

- o C-103 solvent not the only solvent added to tank farms
- o Solvent evaporates and appears to be saponified by alkaline waste

COSTS

OPTION 1 - Increased leak detection costs, increased soil/groundwater clean up costs

OPTION 2 - Standard Interim stabilization costs ($ 1M)

OPTION 3 - Option 2 plus skimmer ($ 1.5M)

Option 4 - Option 2 plus skimmer, separations unit, storage tank ($ 8M)

RECOMMENDED OPTION

BASED ON THE EVALUATION OF ALTERNATIVES, WHC RECOMMENDS:

***IMPLEMENT OPTION 2 - TRANSFER AND STORE THE ORGANIC SOLVENT AND PUMPABLE AQUEOUS LIQUIDS IN A DST USING EXISTING SALTWELL PUMPING EQUIPMENT AND PROCEDURES**

I.E. : PROCEED WITH INTERIM STABILIZATION WITH THE FLOATING ORGANIC LAYER IN PLACE

STATUS

TPA Milestones M-40-07, M-40-03, and M-40-08

presented to

Unit Managers Meeting

by

J. W. (Jerry) Osborne
Tank Vapor Characterization Program
Westinghouse Hanford Company
May 9, 1995

STATUS

- TPA Milestone M-40-07: "Commence Operation of a Vapor Treatment System for Tank 241-C-103"
  - Fabrication of vapor/air dilution treatment system is complete (4/14/95).
  - Acceptance testing (ATP) ongoing.
  - Field operational testing (OTP) scheduled to begin 6/15/95.
  - Installation and initial operation complete by 6/30/95. (2 weeks for test)
  - Extended field performance evaluation complete by 9/30/95.

STATUS

- **TPA Milestone M-40-03: "Sample and Characterize All Ferrocyanide Watch List Tanks"** Originally 24 → 20 → 18 currently

  - **18 of 18 ferrocyanide tanks have been sampled.**

  - **17 of 18 sample sets have been analyzed.**

  - **16 of 18 vapor TCR chapters have been drafted. All complete by 5/31/95 to satisfy PBI 95-011e and SI 2o (6/30/95).**

  - **TPA Milestone M-40-03 due 11/30/95.**

STATUS

- TPA Milestone M-40-08: "Sample and Characterize all Organic Watch List Tanks (Group A & Group B)"

  - 9 of 9 Group A organic tanks sampled and analyzed.

  - 6 of 10 Group B organic tanks sampled and analyzed. Remaining 4 tanks scheduled for completion by 6/15/95.

  - 8 of 19 organic vapor TCR chapters have been drafted. All Group A tanks (9 each) TCR chapters complete by 5/31/95 to satisfy PBI 95-011e and SI 2o (6/30/95).

  - TPA milestone M-40-08 due by 11/30/95.

TANK VAPOR CHARACTERIZATION STATUS REPORT

Tank #	Watch List	Driver	Type 3 Sample Date	Ship Date	PNL Receipt Date	ORNL Receipt Date	Average Turn-around Time (Days)*	PNL Report	ORNL Report	WHC Sampling Report	WHC TCP	WHC VAPOR TCR Chapter
A-101	O	TPA (M-40-08)	** 5/24/95									
AX-102	O	TPA (M-40-08)	** 5/30/95									
B-103	O	TPA (M-40-08) | SI (2o)	02/8/95	2/14/95	2/14/95	2/23/95	P 22 days O 40 days	DRAFT 3/17/95	✓4/20/95	DRAFT	✓	
BX-104			12/30/94	1/5/95	1/5/95	1/10/95		DRAFT 4/7/95	DRAFT 2/23/95	DRAFT	✓	DRAFT (4/17)
BY-103	F	TPA (M-40-03) | SI (2o)	11/1/94	11/8/94	11/8/94			DRAFT 3/10/95	✓	DRAFT	✓	DRAFT (3/14)
BY-104	F	RMCS | TPA (M-40-03) SI (2o)	6/24/94	6/27/94	6/27/94	6/28/94		✓(PNL 10208) 9/13/94	✓ 9/7/94	DRAFT	✓	DRAFT (1/31)
BY-105	F	RMCS | TPA (M-40-03) | SI (2o)	7/7/94	7/11/94	7/11/94	7/12/94		✓(PNL 10256) 11/3/94	✓ 9/2/94	DRAFT		DRAFT (1/31)
BY-106	F	RMCS | TPA (M-40-03) | SI (2o)	7/8/94	7/11/94	07/11/94	7/12/94		✓(PNL 10248) 11/2/94	✓ 9/8/94	DRAFT		DRAFT (1/31)
BY-107	F	RMCS | TPA (M-40-03) | SI (2o)	10/26/94	11/8/94	11/8/94			DRAFT 1/27/95	✓ 1/20/95	DRAFT	✓	DRAFT (2/28)
BY-108	F	TPA (M-40-03) | SI (2o)	10/27/94	11/28/94	11/28/94	11/29/94		DRAFT 2/10/95	✓ 1/24/95 3/16/95	DRAFT	✓	DRAFT (3/3)
BY-110	F	TPA (M-40-03) | SI (2o)	11/11/94	11/28/94	11/28/94			DRAFT 2/17/95	✓ 2/10/95	DRAFT	✓	DRAFT (3/17)
BY-111	F	TPA (M-40-03) | SI (2o)	11/16/94	11/28/94	11/28/94	11/29/94		DRAFT 3/3/95	✓ 2/17/95	DRAFT	✓	DRAFT (3/23)
BY-112	F	TPA (M-40-03) | SI (2o)	11/18/94	11/28/94	11/28/94	11/29/94		DRAFT 3/17/95	✓ 2/21/95	DRAFT	✓	DRAFT (4/17)
C-101		SI (2o)	9/1/94					DRAFT	✓	DRAFT	✓	
C-102	O	SI (2o)	8/23/94			9/9/94		DRAFT 5/3/95	✓ 12/23/94	DRAFT	✓	

TANK VAPOR CHARACTERIZATION STATUS REPORT

Tank #	Watch List	Driver	Type 3 Sample Date	Ship Date	PNL Receipt Date	ORNL Receipt Date	Average Turn-around Time (Days)*	PNL Report	ORNL Report	WHC Sampling Report	WHC TCP	WHC VAPOR TCR Chapter
C-103	O	TPA (M-40-08) | SI (2o)	7 B 5/25/94	5/18/94 / 5/24/94	5/18/94 5/24/94	5/20/94		✓(PNL-10081/ PNL-10172 10/94	✓ 6/17/94 6/27/94		✓	✓(WHC-EP-0780) (6/94)
C-104		RMCS | SI (2o)	3/3/94	3/4/94	3/4/94	3/16/94		DRAFT 1/19/95	✓ 9/15/94	DRAFT		DRAFT (4/3)
C-105		RMCS | SI (2o)	2/16/94	2/18/94	2/18/94	3/5/94		DRAFT 1/19/94	✓ 9/16/94	DRAFT		DRAFT (4/3)
C-106	HH	RMCS | SI (2o)	2/15/94	2/18/94	2/18/94	3/5/94		DRAFT 1/20/95	✓ 9/13/94	DRAFT		DRAFT (4/3)
C-107		SI (2o)	9/29/94		10/5/94	10/4/94		DRAFT 1/27/94	✓ 12/30/94	DRAFT	✓	DRAFT (4/10)
C-108	F	TPA (M-40-03) | SI (2o)	8/5/94	8/8/94	8/8/94	8/16/94		✓ (PNL-10951) 11/94	✓ 10/20/94	DRAFT	✓	DRAFT (2/8)
C-109	F	TPA (M-40-03) | SI (2o)	8/9/94	8/12/94	8/12/94	8/16/94		✓ (PNL-10418) 12/94	✓ 10/27/94	DRAFT	✓	DRAFT (2/10)
C-110		SI (2o)	8/24/94	8/24/94	8/24/94	8/31/94		DRAFT 4/28/95	✓ 11/8/94	DRAFT	✓	
C-111	F	TPA (M-40-03) | SI (2o)	9/13/94	9/13/94	9/13/94	9/16/94		√(PNL-10390) 12/94	✓ 11/22/94	DRAFT	✓	✓ (2/14)
C-112	F	TPA (M-40-03) | SI (2o)	8/11/94	8/12/94	8/12/94	8/16/94		DRAFT 1/27/95	✓ 10/28/94	DRAFT	✓	DRAFT (2/23)
S-102	O	TPA (M-40-08) | SI (2o)	3/14/95	3/17/95	3/17/95		P 25 days	DRAFT 4/21/95				DRAFT (5/4)
S-111	O	TPA (M-40-08)	3/21/95									
SX-103	O	TPA (M-40-08)	3/24/95									
SX-106	O	TPA (M-40-08) | SI (2o)	3/27/95	3/29/95	3/29/95		P 21 days	DRAFT 4/26/95	DRAFT			
T-107	F	TPA (M-40-03) | SI (2o)	1/18/95	2/15/95	2/15/95	2/23/95	P 26 days O 19 days	DRAFT 3/24/95	✓ 3/22/95	DRAFT	✓	DRAFT (4/17)

TANK VAPOR CHARACTERIZATION STATUS REPORT

Tank #	Watch List	Driver	Type 3 Sample Date	Ship Date	PNL Receipt Date	ORNL Receipt Date	Average Turn-around Time (Days)*	PNL Report	ORNL Report	WHC Sampling Report	WHC TCP	WHC VAPOR TCR Chapter
T-111	O	TPA (M-40-08)	1/20/95					I	DRAFT	DRAFT	✓	
TX-105	O	TPA (M-40-08) | SI (2o)	12/22/94	1/5/95	1/5/95	1/10/95	P 46 days O 32 days	DRAFT 3/10/95	DRAFT 2/23/95	DRAFT	✓	DRAFT (3/27)
TX-118	F/O	TPA (M-40-03/M-40-08) | SI (2o)	12/16/94	1/5/95	1/5/95	1/10/95		DRAFT 3/31/95	DRAFT 2/28/95	DRAFT	✓	DRAFT (4/10)
TY-101	F	TPA (M-40-03) | SI (2o)	4/6/95	4/13/95	4/13/95		p 17 days	DRAFT 5/8/95				
TY-103	F	TPA (M-40-03) | SI (2o)	4/11/95									
TY-104	F	TPA (M-40-03) | SI (2o)	4/27/95					DRAFT				
U-103	O	TPA (M-40-08)	2/15/95					I	DRAFT		✓	
U-105	O	TPA (M-40-08)	2/24/95					I				
U-106	O	TPA (M-40-08) | SI (2o)	3/7/95	3/10/95	3/10/95		P 15 days	DRAFT 3/31/95	DRAFT			DRAFT (4/28)
U-107	O	TPA (M-40-08) | SI (2o)	2/17/95	3/1/95	3/1/95		P 32 days	DRAFT 4/14/95			✓	DRAFT (4/28)
U-111	O	TPA (M-40-08) | SI (2o)	2/28/95	3/10/95	3/10/95		P 28 days	DRAFT 4/19/95			✓	DRAFT (5/4)
U-203	O	TPA (M-40-08)	6/6/95									
U-204	O	TPA (M-40-08)	6/8/95									

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.

I Inorganic draft report received from PNL (1/2 of requirement).

Draft Report has been submitted to WHC for review, and/or is in final clearance.

✓ Final report received by WHC.

* Average turnaround time is based on laboratory working days from time of receipt by the laboratory. Only calendar year 1995 average turnaround time calculations are statused.

DOUBLE AND SINGLE-SHELL TANK CHARACTERIZATION

MILESTONE M-44-00

U.S. Department of Energy / Richland Operations Office

Wen-Shou Liou - U.S. DOE

Unit Managers Meeting

May 9, 1995
Richland, Washington

DOUBLE AND SINGLE-SHELL TANK CHARACTERIZATION

MILESTONE M-44-00

TOPICS

- Accomplishments
- Planned Activities
- Issues/Problems
- Weekly Sampling Activities

ACCOMPLISHMENTS

- Tank Characterization Plans (TCPs), first issue or recent revisions, for the following tanks were issued in April: not approve

Tank	Revision	Release Date
241-S-107	Rev. 0 (Push)	04/06/95
241-BX-104	Rev. 0A (Push)	04/07/95
241-SX-113	Rev. 0 (Auger)	04/07/95
241-TY-104	Rev. 0B (Vapor)	04/10/95
Compatibility Grab Sampling and Analysis Plan	Rev. 0 (Grab)	04/10/95
241-B-104	Rev. 0 (Push)	04/13/95
Vapor Sampling and Analysis Plan	Rev. 0 (Vapor)	04/17/95
241-BX-103	Rev. 0 (Push)	04/21/95
241-SX-115	Rev. 0 (Auger)	04/24/95
241-B-101	Rev. 0 (Push)	04/28/95

Accomplishments (Continued)

- The following tanks data were loaded into the electronic Tank Characterization Database (TCD) during April: 241-AP-106, 241-AP-107, and 241-AW-101.
- A draft model TCP submitted to Ecology and EPA for review.
- High level waste samples sent to 325 Laboratory for analyses.

Tanks Sampled During Month of April 1995

Push	241-U-203	Auger	241-C-203
	241-U-204		
Grab	241-AN-106	Vapor	241-TY-101
	241-S-110		241-TY-103
	241-U-107		241-TY-104

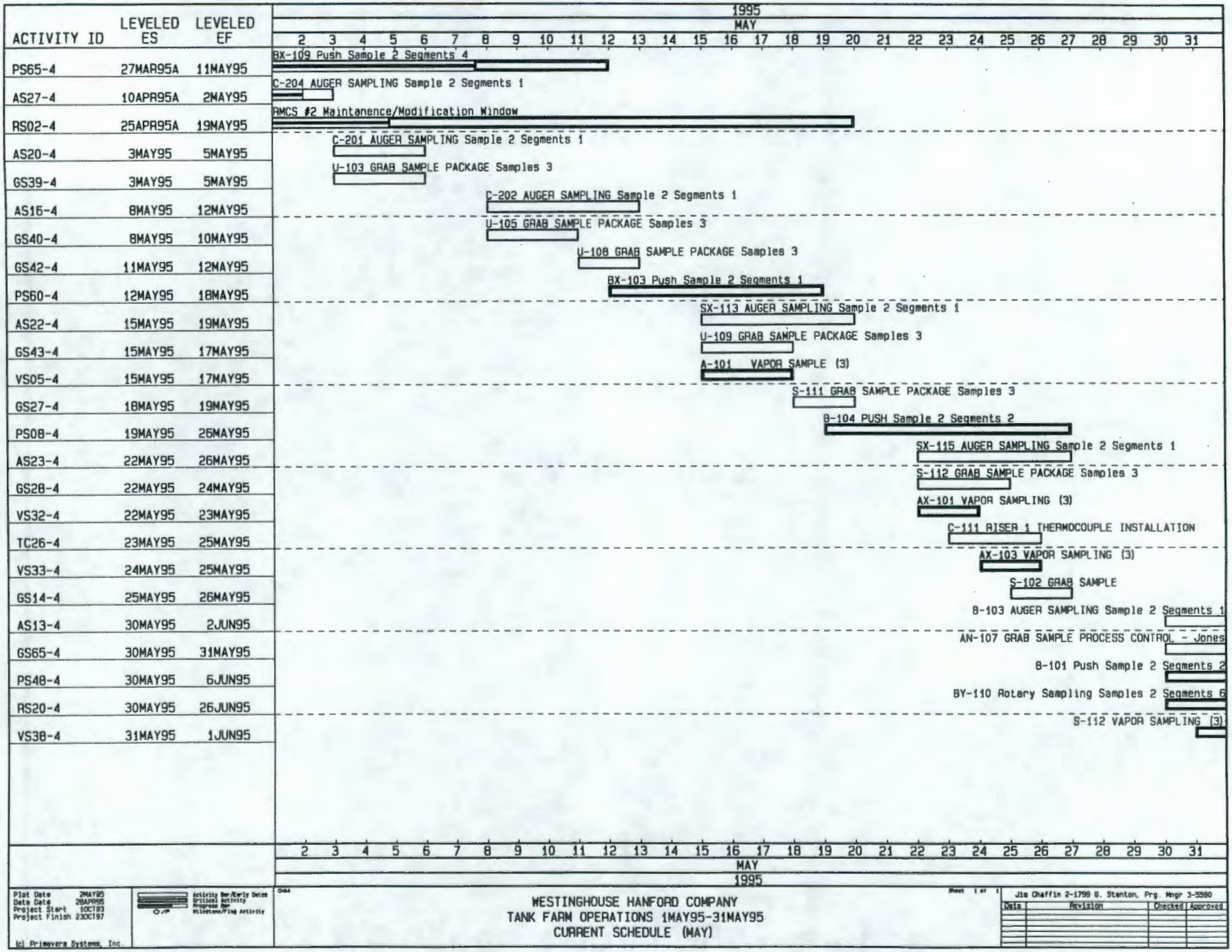
CHARACTERIZATION SAMPLING
Through May 31, 1995

	APRIL				MAY	
Mode	Tanks		Samples		Tanks	Samples
	Plnd	Comp	Plnd	Comp	Plnd	Plnd
Rotary	1	0	1	0	1	1
Push	2	2	4	4	2	4
Auger	2	1	4	2	2	4
Grab	2	3	2	3	2	2
Vapor	6	3	6	3	3	3

Planned Sampling Activities

for

May 1995


1995
MAY
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
ACTIVITY ID
LEVELED ES
LEVELED EF
PS65-4 27MAR95A 11MAY95 BX-109 Push Sample 2 Segments 4
AS27-4 10APR95A 2MAY95 C-204 AUGER SAMPLING Sample 2 Segments 1
RS02-4 25APR95A 19MAY95 RMCS #2 Maintanence/Modification Window
AS20-4 3MAY95 5MAY95 C-201 AUGER SAMPLING Sample 2 Segments 1
GS39-4 3MAY95 5MAY95 U-103 GRAB SAMPLE PACKAGE Samples 3
AS16-4 8MAY95 12MAY95 C-202 AUGER SAMPLING Sample 2 Segments 1
GS40-4 8MAY95 10MAY95 U-105 GRAB SAMPLE PACKAGE Samples 3
GS42-4 11MAY95 12MAY95 U-108 GRAB SAMPLE PACKAGE Samples 3
PS60-4 12MAY95 18MAY95 BX-103 Push Sample 2 Segments 1
AS22-4 15MAY95 19MAY95 SX-113 AUGER SAMPLING Sample 2 Segments 1
GS43-4 15MAY95 17MAY95 U-109 GRAB SAMPLE PACKAGE Samples 3
VS05-4 15MAY95 17MAY95 A-101 VAPOR SAMPLE (3)
GS27-4 18MAY95 19MAY95 S-111 GRAB SAMPLE PACKAGE Samples 3
PS08-4 19MAY95 26MAY95 B-104 PUSH Sample 2 Segments 2
AS23-4 22MAY95 26MAY95 SX-115 AUGER SAMPLING Sample 2 Segments 1
GS28-4 22MAY95 24MAY95 S-112 GRAB SAMPLE PACKAGE Samples 3
VS32-4 22MAY95 23MAY95 AX-101 VAPOR SAMPLING (3)
TC26-4 23MAY95 25MAY95 C-111 RISER 1 THERMOCOUPLE INSTALLATION
VS33-4 24MAY95 25MAY95 AX-103 VAPOR SAMPLING (3)
GS14-4 25MAY95 26MAY95 S-102 GRAB SAMPLE
AS13-4 30MAY95 2JUN95 B-103 AUGER SAMPLING Sample 2 Segments 1
GS65-4 30MAY95 31MAY95 AN-107 GRAB SAMPLE PROCESS CONTROL - Jones
PS48-4 30MAY95 6JUN95 B-101 Push Sample 2 Segments 2
RS20-4 30MAY95 26JUN95 BY-110 Rotary Sampling Samples 2 Segments 6
VS38-4 31MAY95 1JUN95 S-112 VAPOR SAMPLING (3)
Plot Date 2MAY95
Data Date 28APR95
Project Start 10CT93
Project Finish 23DC197
(c) Primavera Systems, Inc.
Activity Bar/Early Dates
Critical Activity
Progress Bar
Milestone/Flag Activity
WESTINGHOUSE HANFORD COMPANY
TANK FARM OPERATIONS 1MAY95-31MAY95
CURRENT SCHEDULE (MAY)
Sheet 1 of 1
Jim Chaffin 2-1799 B. Stanton, Prg. Mngr 3-5380
Date
Revision
Checked
Approved

Planned Activities (Continued)

FY 1995 Milestone Status

- M-44-01B Submit Draft Tank Waste Analysis Plan to Ecology/EPA, due May 31, 1995.
  - On schedule
- M-44-02B Submit Tank Waste Analysis Plan Annual to Ecology/EPA, due August 31, 1995.
  - On schedule
- M-44-08 Submit 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

- Funding difficulties: Restrict the activities in 325 Laboratory

- The 325 Lab mission is being reevaluated for future utilization.

- Based on the urgent need to reduce costs, PNL and WHC are in the process of preparing a transition plan to restructure Hanford radio-analytical laboratory services.

- Review Comments on Various Reports

- Lack of communication on the incorporation of comments provided by reviewers.

ISSUES/PROBLEMS (Continued)

- **WHC Self-Imposed Suspension of Sampling Activities**

  Problem:

  WHC initiated a self-imposed temporary suspension of sampling activities on April 12, 1995, as a result of Operating Specification Document (OSD) violation.

  Corrective Actions

- **All training efforts required prerequisite to resuming sampling activities are completed.**

- **Sampling activities will recommence upon verification that authorization basis requirements have been properly incorporated into field documents.**

  Status

- **Vapor sampling activities resumed as of April 26, 1995.**
  Auger ops also resumed.

ISSUES\PROBLEMS (Continued)

- **Riser Availability (Activities ongoing; status similar to previous month)**

  Problem:

- **Many SSTs only have 1-3 available risers. Competing for instrument installation through these risers may leave an insufficient number for Characterization (e.g. Thermocouple trees, LOWs).**

- **The FY-95 Characterization budget does not include funds for new riser installations.**

→ **Corrective Actions:**

- **The study for installation of new risers in single-shell tanks was completed.**

(unbudgeted)

Impacts:

1) not a problem in short term (2-3 yrs)
2) problem in the long term.

SNAPSHOT SCHEDULE

Sampling Activities for the week of May 8, 1995

PLANNED ACTIVITIES 5/01 - 5/05

Auger

C-204	Complete
C-201	Complete
C-202	Complete

Vapor

TY-104	Complete

PLANNED ACTIVITIES 5/08 - 05/12

Grab

U-103

Auger

SX-113

DOUBLE AND SINGLE-SHELL TANK CHARACTERIZATION

SELF-IMPOSED WORK SUSPENSION

U.S. Department of Energy / Richland Operations Office

Thomas J. Kelley - WHC

Unit Managers Meeting

May 9, 1995
Richland, Washington

Basis for self-imposed work suspension

- Operating Specification Document (OSD) violation, 04/12/95
- Management's knowledge of similar events in past several months
- Conduct of Operations Assessment results
  - satisfactory
  - but less than optimal

Characterization Operations

Corrective action plan initiated

• Reinforce/train field crews/engineering on: - past events (similarities and lessons learned) - Operational Safety Requirements (OSRs)/OSDs - lock and tag procedure	Complete
• Communicate clear management expectations	Complete
• Evaluate knowledge retention of field crews, supervisors and engineers (OSR, SAD, SARR documents) - develop remedial training program - retrain before going to field - evaluate impact of all sub-standard scores	Complete
• Review by Senior Management prior to resumption of work	Complete
• Provide "clear path forward" for defining safety basis for sampling	Complete

Characterization Operations

Corrective action plan initiated (continued)

- Ensure incorporation of safety basis into procedures and work packages — Complete for Vapor (TY-104) and Auger
- Conduct Engineering Assessment — ECD 5/12/95
- Review all changes to operating documents with field crews — Ongoing
- Increase management presence in field — Ongoing

Characterization Operations

Assessment Review Team (ART) actions to date

- Review/approval of TY-104 Vapor sampling procedure — 04/26/95
- Review/approval of Auger sampling procedure — 05/01/95
- Review/approval of Shipping procedure — 05/02/95

Sampling activities to date

- Vapor sample (TY-104) — 04/28/95
- Four Auger core samples (C-204, C-201) — 05/02-03/95
- Ship Auger samples to labs — 05/03/95

Single-Shell Tanks

Interim Stabilization/Isolation

Single-Shell Tank Unit Managers Meeting

T. E. RAINEY

May 9, 1995

CURRENT ACTIVITIES

Pumping 241-BY-109 (M-41-01-T2) - later this week pumping will begin

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

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

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

Preparing to pump 4 tanks in 241-BX and 241-BY Farms (M-41-12)
Start in August - ahead of schedule.

PUMPING STATUS

Interim Stabilization

- 241-BY-102, total pumped 158.8 K gal.
  Pumping completed 03/27/95.
  Interim Stabilization completed four months ahead of schedule.
- 241-C-102 pumped 0 gal.; total pumped 2.7 K gal.
- 241-C-107 pumped 0.0 K gal.; total pumped 16.9 K gal.
- 241-C-110 pumped 0.0 K gal.; total pumped 9.2 K gal.
- 241-BY-109 pumped 0.0 K gal.; total pumped 35.9 K gal.
- Transfer line plugged in C Farm, and jumper/valve repairs needed on BY-109.
  Pumping will begin in a couple of days.

SPECIAL TOPICS

- Cost/Schedule Assessment

Note: Dollars in Thousands	Cumulative to Date	At Completion Current
Budgeted Cost of Work Performed (BCWP)	$6,309.7	
Budgeted Cost of Work Scheduled (BCWS)	$5,620.1	$10,599.0
Actual Cost of Work Performed (ACWP)	$5,823.2	
Variances Schedule Cost	 $ +689.6 $ +486.5	
Funding		$9,368.0

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

SPECIAL TOPICS (Cont.)

WHC Contractor Representative:

D. B. Engelman, Manager

SST Interim Stabilization and Engineering Support

WHC Level 3 Manager:

J. G. Burton, Manager

Interim Stabilization Project

Distribution for UMM Minutes:

G. E. Bishop	S7-54
F. T. Calapristi	B2-35
M. P. Campbell	R1-52
J. E. Couey	S7-52
L. J. Cusack	B5-18
D. B. Engelman	R1-49
EDMC	H6-08
J. M. Gray	S7-54
D. E. Jackson	A5-15
T. J. Kelley	S7-30
S. McKinney	(Ecology-Lacey Office)
M. A. McLaughlin	B2-35
T. E. Rainey	R2-54
M. L. Ramsay	S7-52
C. O. Ruud	S7-54
M. W. Stevenson	B2-35
J. F. Thompson	S7-54
W. R. Wrzesinski	S7-53

Original (Administrative Record) goes to:
Gayle Landeen
H6-23

10/03/95

REACH A DECISION ON HOW TO INTERIM STABILIZE TANK 241-C-103

TPA MILESTONE M-40-04-T01

UNIT MANAGERS MEETING

MAY 9, 1995

MIKE GRIGSBY

TPA MILESTONE M-40-04-T01

REACH A DECISION ON HOW TO INTERIM STABILIZE 241-C-103 BY MAY 15, 1995

STATUS: SAFETY ANALYSIS AND EVALUATION OF ALTERNATIVES COMPLETED

RECOMMENDATION IS TO INTERIM STABILIZE WITH THE LAYER IN PLACE

MILESTONE CHANGE PACKAGE TO DELETE MILESTONES M-40-04-T-02 and M-40-04 IS BEING PREPARED

TANK 241-C-103 - BACKGROUND

TANK HAZARDS INVOLVED:

1. SOLVENT FIRE HAZARD (DEGRADED PUREX SOLVENT LAYER)
   - o SOLVENT FIRE POTENTIAL WAS DECLARED A USQ
   - o TANK CHARACTERIZATION AND SAFETY ANALYSIS ADEQUATE TO CLOSE USQ
2. TOXIC VAPOR EXPOSURE HAZARD
3. SOIL CONTAMINATION IF THE TANK LEAKS (133,000 GALS DRAINABLE LIQUIDS)

HOW TO RESOLVE SAFETY ISSUES?
WHAT TO DO WITH THE ORGANIC LAYER?

EVALUATION OF ALTERNATIVES PREPARED - WHC-EP-0862 - BASED ON ENGINEERING STUDIES AND SUPPLEMENTAL SAFETY ANALYSES

OPTION 1 - NO ACTION (RELATIVE TO PUMPING)

OPTION 2 - TRANSFER OF ORGANIC SOLVENT AND PUMPABLE AQUEOUS LIQUIDS TO A DST USING EXISTING SALTWELL PUMPING EQUIPMENT AND PROCEDURES

OPTION 3 - SKIMMING AND TRANSFER OF MOST OF THE ORGANIC SOLVENT TO A SUITABLE DST WITH SUBSEQUENT SALT WELL PUMPING OF REMAINING PUMPABLE LIQUIDS TO A DIFFERENT DST

OPTION 4 - SKIMMING AND STORAGE OF MOST OF THE ORGANIC SOLVENT IN AN ABOVE GROUND STORAGE CONTAINER WITH SUBSEQUENT SALT WELL PUMPING OF REMAINING PUMPABLE LIQUIDS TO A DST

EVALUATION CONSIDERED VARIOUS CRITERIA

- o PUBLIC HEALTH AND SAFETY (ACCIDENT RISK)
- o OCCUPATIONAL SAFETY
- o ENVIRONMENTAL COMPLIANCE
- o ENGINEERING/OPERATIONAL FEASIBILITY
- o COST

EACH OPTION RATED AGAINST CRITERIA - HIGHEST TOTAL RATING IS RECOMMENDED OPTION

PUBLIC HEATH AND SAFETY
(ACCIDENT RISK)

SOLVENT FIRE RISK IS VERY LOW:

- o Solvent fires are difficult to ignite
- o Limited headspace oxygen extinguishes fires before severe consequences can result
- o Risk is similar for all options
  - Some solvent left for all options
  - Only 60 kgs can burn (18 gals)

WASTE TRANSFER ACCIDENTS CAN BE MITIGATED TO WITHIN RAGS

OCCUPATIONAL SAFETY IMPACTS

TOXIC GAS EXPOSURES:

GASES GENERATED IN AQUEOUS LIQUID AND SLUDGES

- Ammonia and organic species not expected to be mitigated by solvent removal or interim stabilization
- Vapor mitigation addressed by other means if required (e.g., vapor mixing system)

ALL PUMPING OPTIONS HAVE SIMILAR IMPACTS (i.e., probably none)

FEASIBILITY

OPERABILITY - C-103 liquids not suitable for evaporation

IMPLEMENTATION - Additional development, design and procurement needed for skimming and separations technology

D&D/Site Cleanup - Pre-treatment not designed to handle separable organics

- C-103 solvent not the only solvent added to tank farms
- Solvent evaporates and appears to be saponified by alkaline waste

COSTS

OPTION 1 - Increased leak detection costs, increased soil/groundwater clean up costs

OPTION 2 - Standard Interim stabilization costs ($ 1M)

OPTION 3 - Option 2 plus skimmer ($ 1.5M)

Option 4 - Option 2 plus skimmer, separations unit, storage tank ($ 8M)

RECOMMENDED OPTION

BASED ON THE EVALUATION OF ALTERNATIVES, WHC RECOMMENDS:

***IMPLEMENT OPTION 2 - TRANSFER AND STORE THE ORGANIC SOLVENT AND PUMPABLE AQUEOUS LIQUIDS IN A DST USING EXISTING SALTWELL PUMPING EQUIPMENT AND PROCEDURES**

I.E. : <u>PROCEED WITH INTERIM STABILIZATION WITH THE FLOATING ORGANIC LAYER IN PLACE</u>

STATUS

TPA Milestones M-40-07, M-40-03, and M-40-08

presented to

Unit Managers Meeting

by

J. W. (Jerry) Osborne
Tank Vapor Characterization Program
Westinghouse Hanford Company
May 9, 1995

STATUS

- TPA Milestone M-40-07: "Commence Operation of a Vapor Treatment System for Tank 241-C-103"
  - Fabrication of vapor/air dilution treatment system is complete (4/14/95).
  - Acceptance testing (ATP) ongoing.
  - Field operational testing (OTP) scheduled to begin 6/15/95.
  - Installation and initial operation complete by 6/30/95. (2 weeks for test)
  - Extended field performance evaluation complete by 9/30/95.

STATUS

- **TPA Milestone M-40-03: "Sample and Characterize All Ferrocyanide Watch List Tanks"** Originally 24 → 20 → 18 currently

  - **18 of 18 ferrocyanide tanks have been sampled.**

  - **17 of 18 sample sets have been analyzed.**

  - **16 of 18 vapor TCR chapters have been drafted. All complete by 5/31/95 to satisfy PBI 95-011e and SI 2o (6/30/95).**

  - **TPA Milestone M-40-03 due 11/30/95.**

STATUS

- TPA Milestone M-40-08: "Sample and Characterize all Organic Watch List Tanks (Group A & Group B)"

  - 9 of 9 Group A organic tanks sampled and analyzed.

  - 6 of 10 Group B organic tanks sampled and analyzed. Remaining 4 tanks scheduled for completion by 6/15/95.

  - 8 of 19 organic vapor TCR chapters have been drafted. All Group A tanks (9 each) TCR chapters complete by 5/31/95 to satisfy PBI 95-011e and SI 2o (6/30/95).

  - TPA milestone M-40-08 due by 11/30/95.

TANK VAPOR CHARACTERIZATION STATUS REPORT

Tank #	Watch List	Driver	Type 3 Sample Date	Ship Date	PNL Receipt Date	ORNL Receipt Date	Average Turn-around Time (Days)*	PNL Report	ORNL Report	WHC Sampling Report	WHC TCP	WHC VAPOR TCR Chapter
A-101	O	TPA (M-40-08)	☞ 5/24/95									
AX-102	O	TPA (M-40-08)	☞ 5/30/95									
B-103	O	TPA (M-40-08) | SI (2o)	02/8/95	2/14/95	2/14/95	2/23/95	P 22 days O 40 days	DRAFT 3/17/95	✓4/20/95	DRAFT	✓	
BX-104			12/30/94	1/5/95	1/5/95	1/10/95		DRAFT 4/7/95	DRAFT 2/23/95	DRAFT	✓	DRAFT (4/17)
BY-103	F	TPA (M-40-03) | SI (2o)	11/1/94	11/8/94	11/8/94			DRAFT 3/10/95	✓	DRAFT	✓	DRAFT (3/14)
BY-104	F	RMCS | TPA (M-40-03) SI (2o)	6/24/94	6/27/94	6/27/94	6/28/94		✓(PNL-10208) 9/13/94	✓ 9/7/94	DRAFT	✓	DRAFT (1/31)
BY-105	F	RMCS | TPA (M-40-03) | SI (2o)	7/7/94	7/11/94	7/11/94	7/12/94		✓(PNL-10214) 11/3/94	✓ 9/2/94	DRAFT		DRAFT (1/31)
BY-106	F	RMCS | TPA (M-40-03) | SI (2o)	7/8/94	7/11/94	07/11/94	7/12/94		✓(PNL-10218) 11/2/94	✓ 9/8/94	DRAFT		DRAFT (1/31)
BY-107	F	RMCS | TPA (M-40-03) | SI (2o)	10/26/94	11/8/94	11/8/94			DRAFT 1/27/95	✓ 1/20/95	DRAFT	✓	DRAFT (2/28)
BY-108	F	TPA (M-40-03) | SI (2o)	10/27/94	11/28/94	11/28/94	11/29/94		DRAFT 2/10/95	✓ 1/24/95 3/16/95	DRAFT	✓	DRAFT (3/3)
BY-110	F	TPA (M-40-03) | SI (2o)	11/11/94	11/28/94	11/28/94			DRAFT 2/17/95	✓ 2/10/95	DRAFT	✓	DRAFT (3/17)
BY-111	F	TPA (M-40-03) | SI (2o)	11/16/94	11/28/94	11/28/94	11/29/94		DRAFT 3/3/95	✓ 2/17/95	DRAFT	✓	DRAFT (3/23)
BY-112	F	TPA (M-40-03) | SI (2o)	11/18/94	11/28/94	11/28/94	11/29/94		DRAFT 3/17/95	✓ 2/21/95	DRAFT	✓	DRAFT (4/17)
C-101		SI (2o)	9/1/94					DRAFT	✓	DRAFT	✓	
C-102	O	SI (2o)	8/23/94			9/9/94		DRAFT 5/3/95	✓ 12/23/94	DRAFT	✓	

TANK VAPOR CHARACTERIZATION STATUS REPORT

Tank #	Watch List	Driver	Type 3 Sample Date	Ship Date	PNL Receipt Date	ORNL Receipt Date	Average Turn-around Time (Days)*	PNL Report	ORNL Report	WHC Sampling Report	WHC TCP	WHC VAPOR TCR Chapter
C-103	O	TPA (M-40-08) | SI (2o)	7 B 5/25/94	5/18/94 / 5/24/94	5/18/94 5/24/94	5/20/94		✓(PNL-10081/ PNL-10172 10/94	✓ 6/17/94 6/27/94		✓	✓(WHC-EP-0700) (6/94)
C-104		RMCS | SI (2o)	3/3/94	3/4/94	3/4/94	3/16/94		DRAFT 1/19/95	✓ 9/15/94	DRAFT		DRAFT (4/3)
C-105		RMCS | SI (2o)	2/16/94	2/18/94	2/18/94	3/5/94		DRAFT 1/19/94	✓ 9/16/94	DRAFT		DRAFT (4/3)
C-106	IIII	RMCS | SI (2o)	2/15/94	2/18/94	2/18/94	3/5/94		DRAFT 1/20/95	✓ 9/13/94	DRAFT		DRAFT (4/3)
C-107		SI (2o)	9/29/94		10/5/94	10/4/94		DRAFT 1/27/94	✓ 12/30/94	DRAFT	✓	DRAFT (4/10)
C-108	F	TPA (M-40-03) | SI (2o)	8/5/94	8/8/94	8/8/94	8/16/94		✓ (PNL-10351) 11/94	✓ 10/20/94	DRAFT	✓	DRAFT (2/8)
C-109	F	TPA (M-40-03) | SI (2o)	8/9/94	8/12/94	8/12/94	8/16/94		✓ (PNL-10418) 12/94	✓ 10/27/94	DRAFT	✓	DRAFT (2/10)
C-110		SI (2o)	8/24/94	8/24/94	8/24/94	8/31/94		DRAFT 4/28/95	✓ 11/8/94	DRAFT	✓	
C-111	F	TPA (M-40-03) | SI (2o)	9/13/94	9/13/94	9/13/94	9/16/94		✓(PNL-10299) 12/94	✓ 11/22/94	DRAFT	✓	✓ (2/14)
C-112	F	TPA (M-40-03) | SI (2o)	8/11/94	8/12/94	8/12/94	8/16/94		DRAFT 1/27/95	✓ 10/28/94	DRAFT	✓	DRAFT (2/23)
S-102	O	TPA (M-40-08) | SI (2o)	3/14/95	3/17/95	3/17/95		P 25 days	DRAFT 4/21/95				DRAFT (5/4)
S-111	O	TPA (M-40-08)	3/21/95									
SX-103	O	TPA (M-40-08)	3/24/95									
SX-106	O	TPA (M-40-08) | SI (2o)	3/27/95	3/29/95	3/29/95		P 21 days	DRAFT 4/26/95	DRAFT			
T-107	F	TPA (M-40-03) | SI (2o)	1/18/95	2/15/95	2/15/95	2/23/95	P 26 days O 19 days	DRAFT 3/24/95	✓ 3/22/95	DRAFT	✓	DRAFT (4/17)

TANK VAPOR CHARACTERIZATION STATUS REPORT

Tank #	Watch List	Driver	Type 3 Sample Date	Ship Date	PNL Receipt Date	ORNL Receipt Date	Average Turn-around Time (Days)*	PNL Report	ORNL Report	WHC Sampling Report	WHC TCP	WHC VAPOR TCR Chapter
T-111	O	TPA (M-40-08)	1/20/95					I	DRAFT	DRAFT	✓	
TX-105	O	TPA (M-40-08) | SI (2o)	12/22/94	1/5/95	1/5/95	1/10/95	P 46 days O 32 days	DRAFT 3/10/95	DRAFT 2/23/95	DRAFT	✓	DRAFT (3/27)
TX-118	F/O	TPA (M-40-03/M-40-08) | SI (2o)	12/16/94	1/5/95	1/5/95	1/10/95		DRAFT 3/31/95	DRAFT 2/28/95	DRAFT	✓	DRAFT (4/10)
TY-101	F	TPA (M-40-03) | SI (2o)	4/6/95	4/13/95	4/13/95		p 17 days	DRAFT 5/8/95				
TY-103	F	TPA (M-40-03) | SI (2o)	4/11/95									
TY-104	F	TPA (M-40-03) | SI (2o)	4/27/95					DRAFT				
U-103	O	TPA (M-40-08)	2/15/95					I	DRAFT		✓	
U-105	O	TPA (M-40-08)	2/24/95					I				
U-106	O	TPA (M-40-08) | SI (2o)	3/7/95	3/10/95	3/10/95		P 15 days	DRAFT 3/31/95	DRAFT			DRAFT (4/28)
U-107	O	TPA (M-40-08) | SI (2o)	2/17/95	3/1/95	3/1/95		P 32 days	DRAFT 4/14/95			✓	DRAFT (4/28)
U-111	O	TPA (M-40-08) | SI (2o)	2/28/95	3/10/95	3/10/95		P 28 days	DRAFT 4/19/95			✓	DRAFT (5/4)
U-203	O	TPA (M-40-08)	~~6/6/95~~									
U-204	O	TPA (M-40-08)	~~6/8/95~~									

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.

I Inorganic draft report received from PNL (1/2 of requirement).

Draft Report has been submitted to WHC for review, and/or is in final clearance.

✓ Final report received by WHC.

• Average turnaround time is based on laboratory working days from time of receipt by the laboratory. Only calendar year 1995 average turnaround time calculations are statused.

DOUBLE AND SINGLE-SHELL TANK CHARACTERIZATION

MILESTONE M-44-00

U.S. Department of Energy / Richland Operations Office

Wen-Shou Liou - U.S. DOE

Unit Managers Meeting

May 9, 1995
Richland, Washington

DOUBLE AND SINGLE-SHELL TANK CHARACTERIZATION

MILESTONE M-44-00

TOPICS

- Accomplishments
- Planned Activities
- Issues/Problems
- Weekly Sampling Activities

ACCOMPLISHMENTS

- Tank Characterization Plans (TCPs), first issue or recent revisions, for the following tanks were issued in April: 2 not approve

Tank	Revision	Release Date
241-S-107	Rev. 0 (Push)	04/06/95
241-BX-104	Rev. 0A (Push)	04/07/95
241-SX-113	Rev. 0 (Auger)	04/07/95
241-TY-104	Rev. 0B (Vapor)	04/10/95
Compatibility Grab Sampling and Analysis Plan	Rev. 0 (Grab)	04/10/95
241-B-104	Rev. 0 (Push)	04/13/95
Vapor Sampling and Analysis Plan	Rev. 0 (Vapor)	04/17/95
241-BX-103	Rev. 0 (Push)	04/21/95
241-SX-115	Rev. 0 (Auger)	04/24/95
241-B-101	Rev. 0 (Push)	04/28/95

Accomplishments (Continued)

- The following tanks data were loaded into the electronic Tank Characterization Database (TCD) during April: 241-AP-106, 241-AP-107, and 241-AW-101.
- A draft model TCP submitted to Ecology and EPA for review.
- High level waste samples sent to 325 Laboratory for analyses.

Tanks Sampled During Month of April 1995

Push	**241-U-203**	**Auger**	**241-C-203**
	241-U-204		
Grab	**241-AN-106**	**Vapor**	**241-TY-101**
	241-S-110		**241-TY-103**
	241-U-107		**241-TY-104**

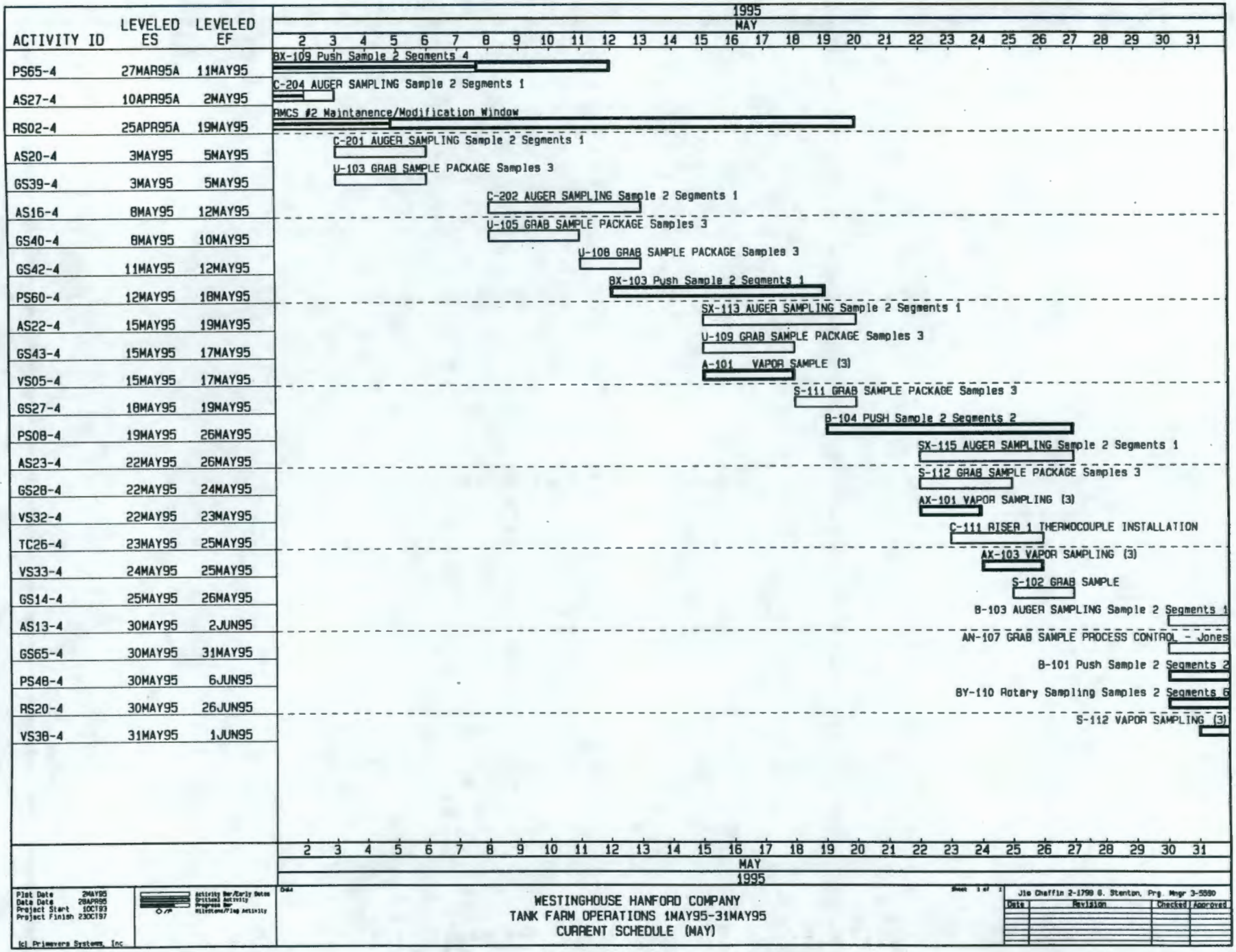
CHARACTERIZATION SAMPLING
Through May 31, 1995

	APRIL				MAY	
Mode	Tanks		Samples		Tanks	Samples
	Plnd	Comp	Plnd	Comp	Plnd	Plnd
Rotary	1	0	1	0	1	1
Push	2	2	4	4	2	4
Auger	2	1	4	2	2	4
Grab	2	3	2	3	2	2
Vapor	6	3	6	3	3	3

Planned Sampling Activities

for

May 1995


1995
MAY
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
ACTIVITY ID
LEVELED ES
LEVELED EF
PS65-4 27MAR95A 11MAY95 BX-109 Push Sample 2 Segments 4
AS27-4 10APR95A 2MAY95 C-204 AUGER SAMPLING Sample 2 Segments 1
RS02-4 25APR95A 19MAY95 RMCS #2 Maintanence/Modification Window
AS20-4 3MAY95 5MAY95 C-201 AUGER SAMPLING Sample 2 Segments 1
GS39-4 3MAY95 5MAY95 U-103 GRAB SAMPLE PACKAGE Samples 3
AS16-4 8MAY95 12MAY95 C-202 AUGER SAMPLING Sample 2 Segments 1
GS40-4 8MAY95 10MAY95 U-105 GRAB SAMPLE PACKAGE Samples 3
GS42-4 11MAY95 12MAY95 U-108 GRAB SAMPLE PACKAGE Samples 3
PS60-4 12MAY95 18MAY95 BX-103 Push Sample 2 Segments 1
AS22-4 15MAY95 19MAY95 SX-113 AUGER SAMPLING Sample 2 Segments 1
GS43-4 15MAY95 17MAY95 U-109 GRAB SAMPLE PACKAGE Samples 3
VS05-4 15MAY95 17MAY95 A-101 VAPOR SAMPLE (3)
GS27-4 18MAY95 19MAY95 S-111 GRAB SAMPLE PACKAGE Samples 3
PS08-4 19MAY95 26MAY95 B-104 PUSH Sample 2 Segments 2
AS23-4 22MAY95 26MAY95 SX-115 AUGER SAMPLING Sample 2 Segments 1
GS28-4 22MAY95 24MAY95 S-112 GRAB SAMPLE PACKAGE Samples 3
VS32-4 22MAY95 23MAY95 AX-101 VAPOR SAMPLING (3)
TC26-4 23MAY95 25MAY95 C-111 RISER 1 THERMOCOUPLE INSTALLATION
VS33-4 24MAY95 25MAY95 AX-103 VAPOR SAMPLING (3)
GS14-4 25MAY95 26MAY95 S-102 GRAB SAMPLE
AS13-4 30MAY95 2JUN95 B-103 AUGER SAMPLING Sample 2 Segments 1
GS65-4 30MAY95 31MAY95 AN-107 GRAB SAMPLE PROCESS CONTROL - Jones
PS48-4 30MAY95 6JUN95 B-101 Push Sample 2 Segments 2
RS20-4 30MAY95 26JUN95 BY-110 Rotary Sampling Samples 2 Segments 6
VS38-4 31MAY95 1JUN95 S-112 VAPOR SAMPLING (3)
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
MAY
1995
Plot Date 2MAY95
Data Date 28APR95
Project Start 10CT93
Project Finish 23OCT97
(c) Primavera Systems, Inc
Activity Bar/Early Dates
Critical Activity
Progress Bar
Milestone/Flag Activity
Date
Sheet 1 of 1
WESTINGHOUSE HANFORD COMPANY
TANK FARM OPERATIONS 1MAY95-31MAY95
CURRENT SCHEDULE (MAY)
Jim Chaffin 2-1799 G. Stenton, Prg. Mngr 3-5580
Date
Revision
Checked
Approved

Planned Activities (Continued)

FY 1995 Milestone Status

- M-44-01B Submit Draft Tank Waste Analysis Plan to Ecology/EPA, due May 31, 1995.
  - On schedule
- M-44-02B Submit Tank Waste Analysis Plan Annual to Ecology/EPA, due August 31, 1995.
  - On schedule
- M-44-08 Submit 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

- Funding difficulties: Restrict the activities in 325 Laboratory

- The 325 Lab mission is being reevaluated for future utilization.

- Based on the urgent need to reduce costs, PNL and WHC are in the process of preparing a transition plan to restructure Hanford radio-analytical laboratory services.

- Review Comments on Various Reports

- Lack of communication on the incorporation of comments provided by reviewers.

ISSUES/PROBLEMS (Continued)

- **WHC Self-Imposed Suspension of Sampling Activities**

  Problem:

  WHC initiated a self-imposed temporary suspension of sampling activities on April 12, 1995, as a result of Operating Specification Document (OSD) violation.

  Corrective Actions

- **All training efforts required prerequisite to resuming sampling activities are completed.**

- **Sampling activities will recommence upon verification that authorization basis requirements have been properly incorporated into field documents.**

  Status

- **Vapor sampling activities resumed as of April 26, 1995.**
  Auger has also resumed.

ISSUES\PROBLEMS (Continued)

- **Riser Availability (Activities ongoing; status similar to previous month)**

  Problem:

- **Many SSTs only have 1-3 available risers. Competing for instrument installation through these risers may leave an insufficient number for Characterization (e.g. Thermocouple trees, LOWs).**

- **The FY-95 Characterization budget does not include funds for new riser installations.**

→ **Corrective Actions:**

- **The study for installation of new risers in single-shell tanks was completed.** (unbudgeted)

  Impacts:
  1) not a problem in short term (2-3yrs)
  2) problem in the long term.

SNAPSHOT SCHEDULE

Sampling Activities for the week of May 8, 1995

PLANNED ACTIVITIES 5/01 - 5/05

Auger

C-204	Complete
C-201	Complete
C-202	Complete

Vapor

TY-104	Complete

PLANNED ACTIVITIES 5/08 - 05/12

Grab

U-103

Auger

SX-113

DOUBLE AND SINGLE-SHELL TANK CHARACTERIZATION

SELF-IMPOSED WORK SUSPENSION

U.S. Department of Energy / Richland Operations Office

Thomas J. Kelley - WHC

Unit Managers Meeting

May 9, 1995
Richland, Washington

Characterization Operations

Basis for self-imposed work suspension

- Operating Specification Document (OSD) violation, 04/12/95
- Management's knowledge of similar events in past several months
- Conduct of Operations Assessment results
  - satisfactory
  - but less than optimal

Characterization Operations

Corrective action plan initiated

- Reinforce/train field crews/engineering on: — Complete
  - past events (similarities and lessons learned)
  - Operational Safety Requirements (OSRs)/OSDs
  - lock and tag procedure
- Communicate clear management expectations — Complete
- Evaluate knowledge retention of field crews, supervisors and engineers (OSR, SAD, SARR documents) — Complete
  - develop remedial training program - retrain before going to field
  - evaluate impact of all sub-standard scores
- Review by Senior Management prior to resumption of work — Complete
- Provide "clear path forward" for defining safety basis for sampling — Complete

Characterization Operations

Corrective action plan initiated (continued)

• Ensure incorporation of safety basis into procedures and work packages	Complete for Vapor (TY-104) and Auger
• Conduct Engineering Assessment	ECD 5/12/95
• Review all changes to operating documents with field crews	Ongoing
• Increase management presence in field	Ongoing

Assessment Review Team (ART) actions to date

- Review/approval of TY-104 Vapor sampling procedure — 04/26/95
- Review/approval of Auger sampling procedure — 05/01/95
- Review/approval of Shipping procedure — 05/02/95

Sampling activities to date

- Vapor sample (TY-104) — 04/28/95
- Four Auger core samples (C-204, C-201) — 05/02-03/95
- Ship Auger samples to labs — 05/03/95

Single-Shell Tanks

Interim Stabilization/Isolation

Single-Shell Tank Unit Managers Meeting

T. E. RAINEY

May 9, 1995

PUMPING STATUS

Interim Stabilization

- 241-BY-102, total pumped 158.8 K gal.
  Pumping completed 03/27/95.
  Interim Stabilization completed four months ahead of schedule.
- 241-C-102 pumped 0 gal.; total pumped 2.7 K gal.
- 241-C-107 pumped 0.0 K gal.; total pumped 16.9 K gal.
- 241-C-110 pumped 0.0 K gal.; total pumped 9.2 K gal.
- 241-BY-109 pumped 0.0 K gal.; total pumped 35.9 K gal.
- Transfer line plugged in C Farm, and jumper/valve repairs needed on BY-109.
  Pumping will begin in a couple of days.

CURRENT ACTIVITIES

Pumping 241-BY-109 (M-41-01-T2) - later this week pumping will begin

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

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

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

Preparing to pump 4 tanks in 241-BX and 241-BY Farms (M-41-12)
start in August - ahead of schedule.

SPECIAL TOPICS

- Cost/Schedule Assessment

Note: Dollars in Thousands	Cumulative to Date	At Completion Current
Budgeted Cost of Work Performed (BCWP)	$6,309.7	
Budgeted Cost of Work Scheduled (BCWS)	$5,620.1	$10,599.0
Actual Cost of Work Performed (ACWP)	$5,823.2	
Variances Schedule Cost	 $ +689.6 $ +486.5	
Funding		$9,368.0

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

SPECIAL TOPICS (Cont.)

WHC Contractor Representative:

D. B. Engelman, Manager

SST Interim Stabilization and Engineering Support

WHC Level 3 Manager:

J. G. Burton, Manager

Interim Stabilization Project

Distribution for UMM Minutes:

G. E. Bishop	S7-54
F. T. Calapristi	B2-35
M. P. Campbell	R1-52
J. E. Couey	S7-52
L. J. Cusack	B5-18
D. B. Engelman	R1-49
EDMC	H6-08
J. M. Gray	S7-54
D. E. Jackson	A5-15
T. J. Kelley	S7-30
S. McKinney	(Ecology-Lacey Office)
M. A. McLaughlin	B2-35
T. E. Rainey	R2-54
M. L. Ramsay	S7-52
C. O. Ruud	S7-54
M. W. Stevenson	B2-35
J. F. Thompson	S7-54
W. R. Wrzesinski	S7-53

Original (Administrative Record) goes to:
Gayle Landeen
H6-23

10/03/95