START

Meeting Minutes Transmittal

DOUBLE-SHELL TANK SYSTEM
Unit Managers Meeting
2440 Stevens Center Place, Room 1600
Richland, Washington

August 10, 1994
9:30 a.m. to 11:30 a.m.

The undersigned indicate by their signatures that these meeting minutes reflect the actual occurrences of the above dated Unit Managers Meeting (UMM).

M. W. Cline — Date: 9/14/94
C. E. Clark, Unit Manager, RL
(Represented by M. W. Cline, WHC)

G. R. Konzek — Date: 9/13/94
G. R. Konzek, Lead Engineer, MWTF Project, RL
(Represented by J. D. Banks, RL)

Not Present — Date:
D. L. Duncan, RCRA Program Manager, EPA Region 10

F. Ma — Date: 9/14/94
F. Ma, Unit Manager, Washington State Department of Ecology

Double-Shell Tank System, WHC Concurrence

FOR L. GARNER — Date: 9/14/94
L. A. Garner, Contractor Representative, WHC
(Represented by T. J. Snider, WHC)

Purpose: Discuss Permitting Process

Meeting Minutes are attached. The minutes are comprised of the following:
Attachment 1 - Agenda
Attachment 2 - Summary of Discussion and Commitments/Agreements
Attachment 3 - Attendance List
Attachment 4 - Action Item Summary
Attachment 5 - Provide Additional Double-Shell Tank Capacity
Attachment 6 - Replacement of the Cross-Site Transfer System Project 93-D-182 (W-058)
Attachment 7 - Tank Farm Restoration and Safe Operations Project W-314
Attachment 8 - Double-Shell Tank Inspection Project
Attachment 9 - Double-Shell Tank Waste Analysis Plan

DOUBLE-SHELL TANK SYSTEM
Unit Managers Meeting Agenda
2440 Stevens Center Place, Room 1600
Telephone Conference with EPA
Richland, Washington

August 10, 1994
9:30 a.m. - 11:30 a.m.

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1. **APPROVAL OF PREVIOUS MEETING MINUTES**
   - *July 20, 1994*

2. **PROJECT STATUS**
   - Multi-Function Waste Tank Facility, Project 236-A (Milestone M-42) — *Jerlinda Banks, RL*
   - Replacement of the Cross-Site Transfer System, Project W-028/058 (Milestone M-43-07) — *Gae Neath, RL*
   - Tank Farm Restoration and Safe Operations, Project W-314 (Milestone M-43-05) — *Mark Ramsay, RL*

3. **DOUBLE-SHELL TANK SYSTEM RCRA TOPICS**
   - DST Integrity Assessment, *Dan Pfluger, WHC*
   - Support for Chapter 8, Training Plan Workshop

4. **ACTION ITEMS**
   - Past Actions

12-07-93:1	RL will provide Ecology information in an effort to initiate a project-wide nondisclosure agreement. ACTION: G. Konzek (RL)	**OPEN**
7-20-94:1	RL will initiate work to provide end dates in the compliance plan schedule for DST System upgrades to support permitting, and a status will be given at the Unit Managers Meeting. ACTION: C. Ruud (RL)	**OPEN**
7-20-94:2	Ecology will determine a point of contact for the integrity assessment program. ACTION: S. McKinney/F. Ma (Ecology)	**OPEN**
7-20-94:3	Prepare a draft TPA change request to address changes resulting from consolidation of subprojects W-314A, B, C, and D. ACTION: K. Boes, WHC/M. McLaughlin, WHC	**OPEN**

   - New Actions

5. **SCHEDULE OF NEXT MEETING**
   - Proposed topics
   - Tentative dates (?)

DOUBLE-SHELL TANK SYSTEM
Unit Managers Meeting
2440 Stevens Center Place, Room 1600
Richland, Washington

August 10, 1994
9:30 a.m. to 11:30 a.m.

Summary of Discussion and Commitments/Agreements

1. APPROVAL OF PREVIOUS MEETING MINUTES

- The July 20, 1994 Unit Manager Meeting minutes were approved.

2. PROJECT STATUS

- Ms. J. Banks (RL) provided an update on the status of the Multi-Function Waste Tank Facility (Attachment 5). Ms. C. Haass (WHC) stated that the TWRS Energy Systems Acquisition Advisory Board (ESAAB), which will make the decision whether to approve KD-3A, has been moved from the end of September 1994 to October 1994, and a separate tanks ESAAB will probably occur before the TWRS ESAAB. The NEPA documentation approval was published in the Federal Register for public review on August 5, 1994. The SIS/EIS was signed off by Mr. J. Wagner (RL) on July 21, 1994, and has been published in the Federal Register for a 45-day public review period. The record of decision is expected November 11, 1994. Ms. Haass noted that there could a be potential delay to the November date if the native Americans request an extension (45 days) of the public comment period.

  Title II design is ongoing. The site utilities package is in review in RL. The site fencing package is complete, and RL is considering using the Hanford forces instead of going out for bid on the site fencing package. The remaining packages are on schedule for release to WHC for review. Initiation of construction of the MWTF is predicated on KD-3 approval.

  DOE-Headquarters has requested that the TWRS program evaluate the TWRS systems engineering, which could result in a two- to three-month impact to the MWTF project and cause a delay in construction.

  The preliminary safety analysis (PSAR) review is scheduled for a September 16, 1994 release.

  Ms. Haass stated that the following major issues could potentially impact the M-42 milestone: the TWRS systems engineering review, the NEPA activities, the PSAR review, and approval of KD 3A. Mr. McKinney inquired about the scope of KD-3A. Ms. Haass noted that KD-3A encompasses site preparation, including clearing and grading, in the West Area.

  The M-42-00 presentation handed out at this meeting had a typographical error. On the Special Topics page, Cost/Schedule Assessment item BCWS should be 1,886.2 instead of 1,186.2.

A teleconference meeting with Mr. McKinney and RL/WHC was scheduled August 30, 1994, to discuss impacts to the M-42 milestone date.

- Ms. G. Neath (RL) provided a status on the replacement of the Cross-Site Transfer System (Attachment 6). DOE-Headquarters has given DOE-RL delegation of authority on major projects for the NEPA documents, and Mr. J. Wagner (RL) will be approving the long-lead procurement waiver. (NOTE: Subsequent to this UMM, a correction was made that indicated this delegation rest with DOE-Headquarters, not Mr. Wagner. Mr. McKinney asked if the delay with the waiver has caused schedule problems, and Ms. Neath stated that the waiver approval has not caused an impact.

  Ms. Neath stated that the supplemental hazard evaluation regarding the diversion box modifications and the higher pressure pump indicated no change in the bounding case in the EIS. In response to an inquiry from Mr. McKinney, Ms. Neath indicated the supplemental evaluation should not impact the EIS.

  Mr. McKinney requested information regarding the systems configuration. Ms. Haass indicated that all of the decisions will be agreed upon and approved by RL prior to the August 30, 1994 EIS public hearings, and the information would be available at that time.

  Mr. McKinney inquired about the TPA milestones schedule. Ms. Neath responded that RL/WHC are on target with all the milestones, except for a potential 30-slip to the target design completion milestone, and that construction should be completed on schedule.

  At this time Mr. McKinney left the meeting via the teleconference.

- Mr. M. Ramsey (WHC) provided a status on the tank farm restoration and safe operations (Attachment 7). Mr. Ramsey noted that on page three of the handout, beginning with the second milestone T01, the milestones listed are duplicated, and the milestones associated with those six are 314D, not 314C. Mr. Ramsey explained that the TPA change request was the result of a determination from the engineering studies that consolidation of the W-314 milestones would provide a better strategy due to integration of the projects. Mr. Ramsey added that WHC is optimistic about completing the full tank farms upgrades prior to 2005. Mr. F. Ma (Ecology) asked when the TPA milestone change request would be submitted, and Mr. Ramsey indicated that a submittal date would be provided by the next Unit Managers Meeting.

3. DOUBLE-SHELL TANK SYSTEM RCRA TOPICS

- Mr. D. Pfluger (WHC) distributed a handout (Attachment 8) and provided a status on the tank system integrity assessment program. The goal of the project is to remotely inspect double-shell tanks for wall thickness, corrosion pitting, and stress-corrosion cracking. The inspections will be included in the integrity assessments of the double-shell tanks. WHC is planning to do the performance test in January 1995, and initiate inspections in the summer of 1995. Ecology will be notified when the tests are scheduled. WHC plans to inspect six tanks to represent the 28 double-shell tanks. The criteria for selecting the six tanks for inspection include waste type, temperature, and age. Mr. Pfluger stated

that a copy of the program plan including the criteria for tank selection was sent to Ecology and EPA on June 30, 1994.

- Mr. Ruud indicated that RL is in the process of assessing the schedule for the compliance plan.

- Ms. Thompson suggested scheduling workshop meetings with Ecology, beginning in September 1994, to discuss the draft Chapter 8, which comprises the TWRS training plan. Mr. Stone agreed to contact Ms. Thompson to set up a meeting.

4. ACTION ITEMS

- Action item 12-07-93:1, RL will provide Ecology information in an effort to initiate a project-wide nondisclosure agreement. This action item remained open.

  Action item 7-20-94:1, RL will initiate work to provide end dates in the compliance plan schedule, and a status will be given at the Unit Managers Meeting. This action item remained open.

  Action item 7-20-94:2, Ecology will determine a point of contact for the integrity assessment program. This action item remained open.

  Action item 7-20-94:3, Prepare a draft TPA change request to address changes resulting from consolidation of subprojects W-314A, B, C, and D.

- There were no new action items generated.

5. SCHEDULE OF NEXT MEETING

- Proposed topics for the next Unit Managers Meeting include a status on the multi-function waste tank facility, a status on the schedule for the compliance plan, and a status on the double-shell tank waste analysis plan.

- The next Unit Managers Meeting was scheduled for September 14, 1994.

DOUBLE-SHELL TANK SYSTEM
Unit Managers Meeting
2440 Stevens Center Place, Room 1600
Richland, Washington

August 10, 1994
9:30 a.m. to 11:30 a.m.

Attendance List

NAME	ORGANIZATION	PHONE #	MSIN
Linda Banks	RL	(509) 376-1465	S2-52
Michael Cline	WHC	(509) 376-7957	H6-24
Bob Gustavson	WHC	(509) 373-5090	R1-51
Carolyn Haass	WHC	(509) 373-1217	R3-73
Gerry Hendricks	GSSC	(509) 946-3687	B1-42
Kathy E. Knox	WHC	(509) 372-3596	H6-24
Fenggang Ma	Ecology	(509) 736-3035	B5-18
Scott E. McKinney	Ecology	(206) 407-7146	Lacey
Mary Ann McLaughlin	WHC	(509) 376-4084	B2-35
Charles Mulkey	WHC	(509) 373-5609	R1-51
Gae M. Neath	DOE-RL	(509) 376-7828	S7-52
Yusuf Noorani	GSSC	(509) 373-0848	R3-77
Dan Pfluger	WHC	(509) 376-6164	H5-52
Mark Ramsey	DOE-RL	(509) 376-7924	S2-52
Dennis Rewinkel	GSSC	(509) 372-0760	S7-52
Casey O. Ruud	DOE-RL	(509) 373-3478	S7-54
Keith Scott	WHC	(509) 376-5445	H5-52
Cindy Smith	WHC	(509) 376-3860	H6-20
Tom Snider	WHC	(509) 372-2959	S6-30
Alex Stone	Ecology	(509) 736-3018	N1-08
Suzette A. Thompson	WHC	(509) 372-0958	H6-24
Carl Van Katwijk	WHC	(509) 376-9385	B4-52

DOUBLE-SHELL TANK SYSTEM
Unit Managers Meeting
2440 Stevens Center Place, Room 1600
Richland, Washington

August 10, 1994
9:30 a.m. to 11:30 a.m.

Action Item Summary

Past Item #	Description
12-07-93:1	RL will provide Ecology information in an effort to initiate a project-wide nondisclosure agreement. ACTION: G. Konzek (RL) OPEN
7-20-94:1	RL will initiate work to provide end dates in the compliance plan schedule, and a status will be given at the Unit Managers Meeting. ACTION: C. Ruud (RL) OPEN
7-20-94:2	Ecology will determine a point of contact for the integrity assessment program. ACTION: S. McKinney/F. Ma (Ecology) OPEN
7-20-94:3	Prepare a draft TPA change request to address changes resulting from consolidation of subprojects W-314A, B, C, and D. ACTION: K. Boes, WHC/M. McLaughlin, WHC OPEN

DOUBLE-SHELL TANK SYSTEM
Unit Managers Meeting
2440 Stevens Center Place, Room 1600
Richland, Washington

August 10, 1994
9:30 a.m. to 11:30 a.m.

Provide Additional Double-Shell Tank Capacity
Milestone M-42-00

PROVIDE ADDITIONAL DOUBLE-SHELL TANK CAPACITY

MILESTONE M-42-00

J. D. BANKS
RL, MULTI-FUNCTION WASTE TANK FACILITY
PROJECT OFFICE

AUGUST 10, 1994

Open Commitments

- **RL will provide Ecology information in an effort to initiate a project-wide nondisclosure agreement.**

  ACTION: G. Konzek (RL)

Milestone Descriptions

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

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

- **M-42-01-T1** **Initiate Detail Design of the MWTF 200W Area tanks. 03/94 (A 5/94)**

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

Milestone Descriptions (continued)

- **M-42-02** Complete construction of the MWTF 200E Area tanks. 09/98

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

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

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

- Obtain approval for Key Decision 3A
- Obtain National Environment Policy Act (NEPA) documentation approval
- Continue Title II Design
- Revise Project Plan based upon BCP & Title I approvals
- Initiate construction of the MWTF

Special Topics

- **Concerns**
  - **TWRS program is currently evaluating the program, which could have impacts to the MWTF project**
  - **The EIS activities are slipping causing concern of impacts to TPA Milestone M-42-02-T1**
  - **PSAR review is ongoing, however progressing slow**
  - **Delegation of authority for local approval of Key Decisions is progressing slow (may make it more challenging MWTF's KD 3A).**

Special Topics (Continued)

Cost/Schedule Assessment

	Current Period June 27 - July 31	Cumulative to Date
Budget Cost Work Performed (BCWP)	2,327.6	33,242.1
Budget Cost Work Scheduled (BCWS)	1,886.2	32,113.2
Actual Cost Work Performed (ACWP)	2,100.0	33,708.1
Variances:		
Schedule	(441.4)	(1,128.9)
Cost	(213.8)	(1,594.9)

As of end of July 31, 1994

Variance Explanation:

Cost

- No approved EIS budget
- PSAR costs were higher than anticipated
- PM moving cost

Schedule

- Technology: Portions of Design required rework due to changes in heat removal system & refining of structural model based on final soils evaluation Report; and also resources were shifted to more critical areas (K Basin), however work will finish this FY without impact to design.

- Regulatory Compliance: Behind due to air permitting receiving flow diagrams late, however a recovery schedule has been developed. Permits are expected to be to RL by the end of August.

- Title II Detailed Design: Behind due to the lack of manpower due to hiring constrainsts.

DOUBLE-SHELL TANK SYSTEM
Unit Managers Meeting
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August 10, 1994
9:30 a.m. to 11:30 a.m.

Replacement of Cross-Site Transfer System
Project 93-D-182 (W-058)

REPLACEMENT OF CROSS-SITE TRANSFER SYSTEM

PROJECT 93-D-182 (W-058)

G. M. NEATH
RL, TANK WASTE PROJECTS

August 10, 1994

Milestone Description

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

Accomplishments (Last three months)

- Issued Preliminary Design Fire Hazards Analysis Report, May 1994.
- Submitted Revised Long-Lead Procurement Waiver, June 1994.
- Issued WHC approved Functional Design Criteria, Revision 2 for RL approval, July 1994.
- Issued Supplemental Hazard Evaluation for WHC approval in support of the Preliminary Safety Analysis Report, July 1994.

Planned Actions (Next six months)

- Obtain Long-Lead Procurement Waiver, August 1994.
- Award Long-Lead Procurement Contracts, August 1994.
- Obtain National Environmental Policy Act (NEPA) documentation approval, October 1994.
- Continue Title II Design

Special Topics

- **Concerns**

  System configuration issues may impact current design schedule. Issues include: Number of pumps, diversion box design, and pipe routing.

  System configuration integrated team has proposed a recommendation.

  Cost and schedule impacts are being assessed. TPA milestones for completing design (M-43-07-T01) may be impacted.

Special Topics (Continued)

- **Cost/Schedule Assessment**

	Current Period July 1994	Cumulative to Date	At Completion
Budget Cost Work Performed (BCWP)	141.7	3139.2	52700.0
Budget Cost Work Scheduled (BCWS)	788.3	6341.8	52700.0
Actual Cost Work Performed (ACWP)	141.1	3346.3	52700.0
Variances:			
Costs	0.6	-207.1	0.0
Schedule	-646.6	-3202.6	0.0

Variance Explanation: Resolution of Title I Design issues and Key Decision 2 approval delayed Title II Design start from September 1993 to March 1994.

Attachment 7

DOUBLE-SHELL TANK SYSTEM
Unit Managers Meeting
2440 Stevens Center Place, Room 1600
Richland, Washington

August 10, 1994
9:30 a.m. to 11:30 a.m.

Tank Farm Restoration and Safe Operations
Project W-314

TANK FARM RESTORATION AND SAFE OPERATIONS

PROJECT W-314

FY 1996 Major System Acquisition

M. L. Ramsay
RL, Tank Waste Projects Division

August 10, 1994

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

Milestone Description

• M-43-04	**Complete Project W-314A Tank Farm Integrated Instrumentation System Upgrades - June 2002**
- M-43-04A	Provide WDOE and DOH the Conceptual Design Report - May 1995
- M-43-04-T05	Receive DOE-HQ project validation to request congressional funding - June 1995
- 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-43-02	**Complete Project W-314B Double Shell Tank Ventilation Upgrades - June 2002**
- M-43-02A	Provide WDOE and DOH the Conceptual Design Report - May 1995
- M-43-02-T06	Receive DOE-HQ project validation to request congressional funding - June 1995
- M-43-02-T07	Start Definitive Design for W-314A - January 1997
- M-43-04-T08	Complete Definitive design for W-314A - January 1999
- M-43-02-T09	Start construction of W-314B - March 1999
- M-43-02B	Complete construction of W-314B - December 2002
- M-43-02C	Start operation of W-314B - 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-43-05-T01	Provide WDOE the project Engineering Study and scope statement - February 1995
-	M-43-05-T02	Provide the WDOE the project Functions and Requirements - April 1995
-	M-43-05-T03	Provide the WDOE the Project Conceptual Design Statement of Work - June 1995
-	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-314C Tank Farm Electrical Upgrades - June 2004**
-	M-43-06-T01	Provide WDOE the project Engineering Study and scope statement - February 1996
-	M-43-06-T02	Provide the WDOE the project Functions and Requirements - April 1996
-	M-43-06-T03	Provide the WDOE the Project Conceptual Design Statement of Work - June 1996
-	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

Accomplishments

- Completed final W-314 engineering study (formerly W-314D, Tank Farm Electrical Upgrades)
- Completed detailed planning for W-314 pre-conceptual and conceptual design work (Design Requirements Baseline, DRB), and initiated work on pre-conceptual tasks
- Continued activity for procuring an offsite A-E/CM contractor to perform the W-314 advanced conceptual design and subsequent definitive design/construction management work
- Resolved DOE-HQ (EM-36) comments on W-314 Justification of Mission Need document

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

Planned Actions (Next 6 Months)

- Complete Functions and Requirements (F&R) for waste transfer system upgrades (formerly W-314C) — August 1994
- Prepare TPA change request to modify W-314 milestones based on combination of former subprojects W-314A, W-314B, W-314C, and W-314D — August 1994
- Complete A-E/CM procurement package and issue public Request for Qualifications — September 1994
- Complete W-314 pre-conceptual design documentation, including Design Requirements Document (DRD), Functions and Operations Requirements (F&OR), and energy/mass flowsheets — September
- Obtain DOE-HQ approval of Key Decision 0 — September 1994
- Initiate W-314 conceptual design development work — October 1994

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

Special Topics

- Concerns
  - Any delay in obtaining DOE-HQ approval of Key Decision 0 beyond September 1994 will impact start of conceptual design work and will impact TPA milestones for completion of conceptual design (M-43-02A and M-43-04A), as well as milestones for DOE validation of project funding (M-43-02-T06 and M-43-04-T05)

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

Special Topics

- **Cost/Schedule Assessment (FY 94, through 7/31/94)**

	Current Period June 27 — July 31
Budgeted Cost Work Performed (BCWP)	$5,069.K
Budgeted Cost Work Scheduled (BCWS)	$5,225.K
Actual Cost Work Performed (ACWP)	$4,720.K

DOUBLE-SHELL TANK SYSTEM
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August 10, 1994
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Double-Shell Tank Inspection Project

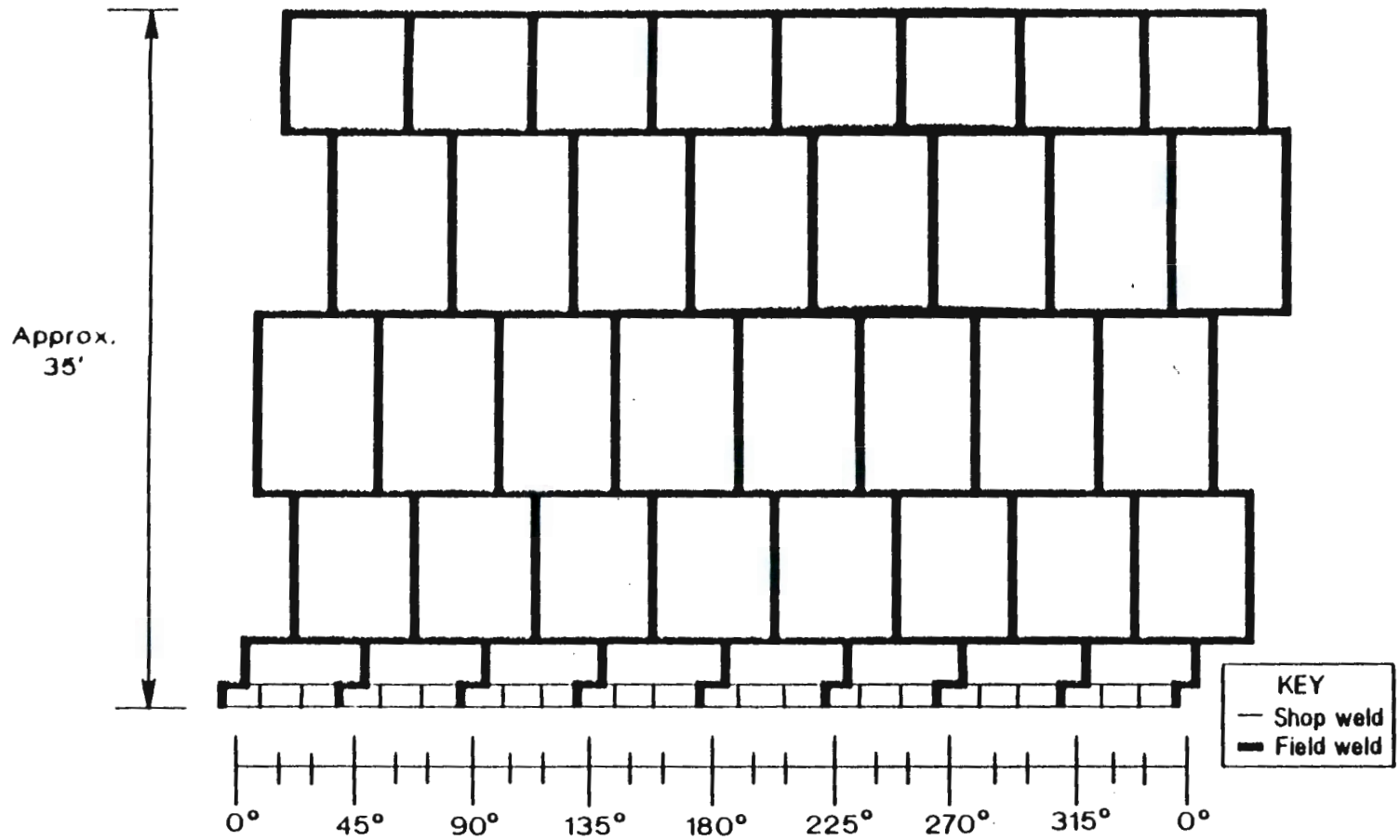
Double-Shell Tank Inspection Project

D. C. Pfluger

August 10, 1994

Project Overview

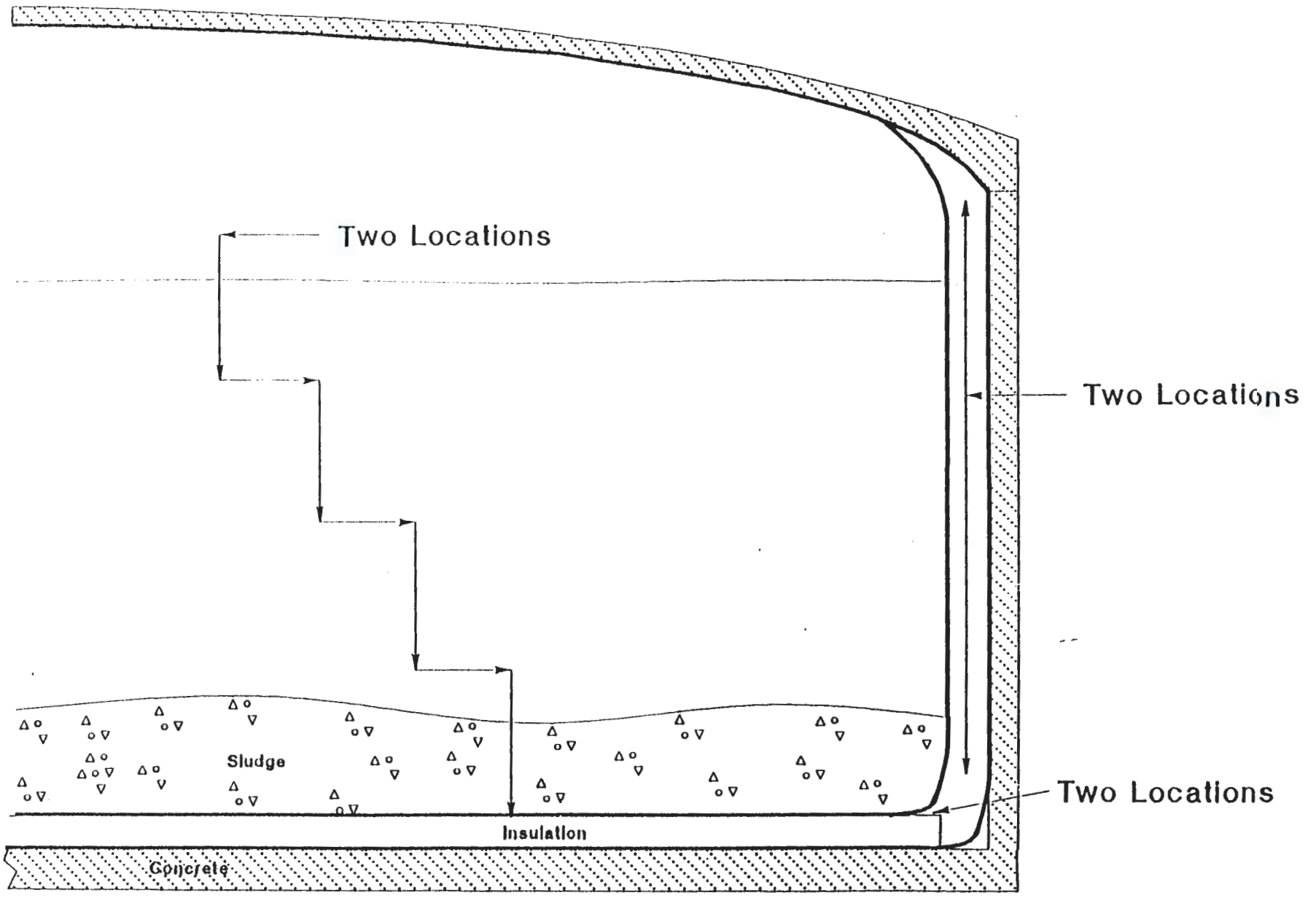
- Develop UT robot (Raytheon)
- Performance test
- Inspection readiness
- Inspections

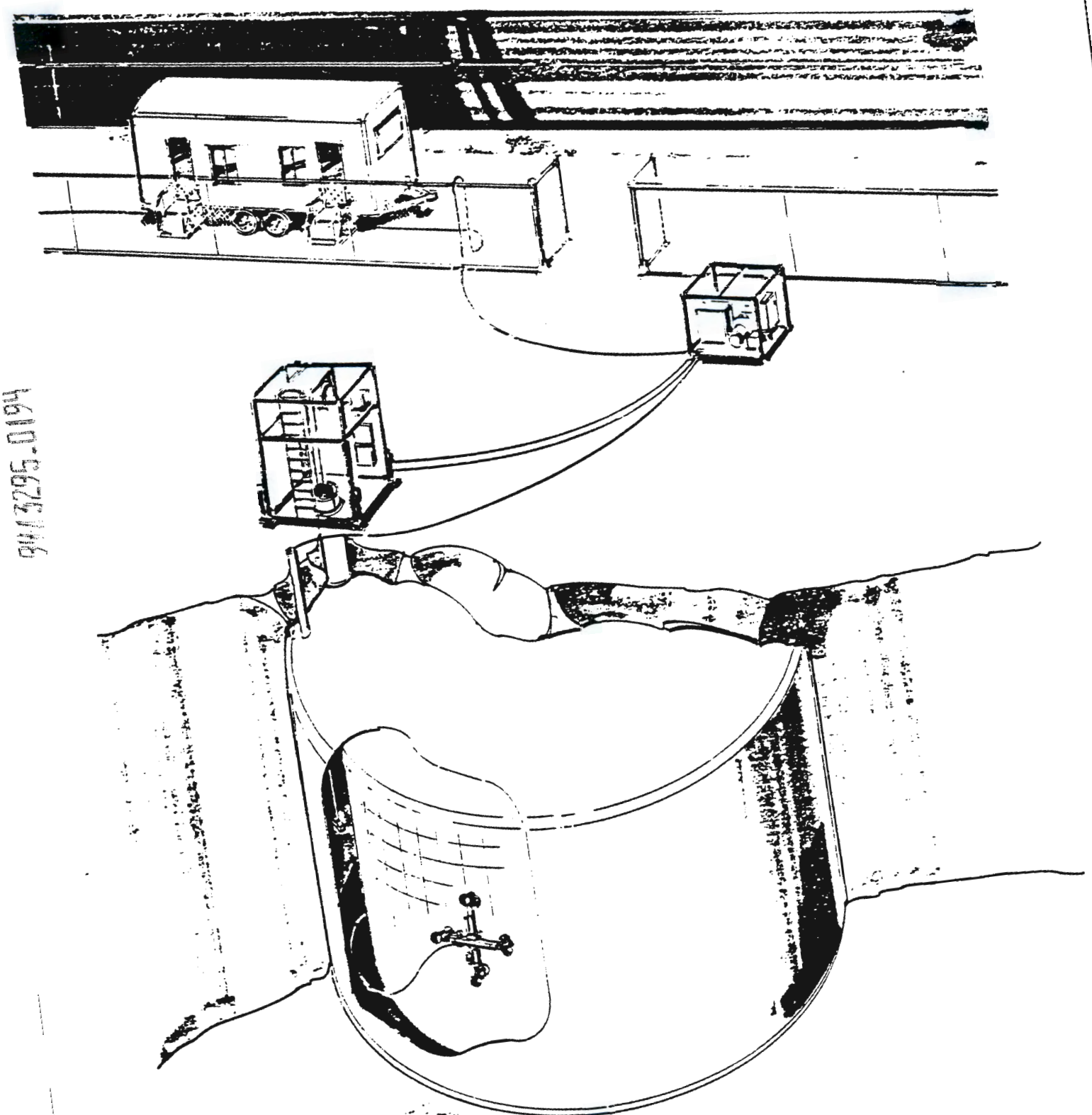


Typical Tank Weld Map (AW Farm)

(Not to scale)

Proposed Inspection





REDZONE
ROBOTICS, INC.

Double Shell Tank
Inspection System

DOUBLE-SHELL TANK SYSTEM
Unit Managers Meeting
2440 Stevens Center Place, Room 1600
Richland, Washington

August 10, 1994
9:30 a.m. to 11:30 a.m.

Double-Shell Tank Waste Analysis Plan

Double-Shell Tank
Waste Analysis Plan
6/14/94

The following is a description of the contents of the Double-Shell Tank (DST) System Waste Analysis Plan (WAP). The DST System WAP will be used to obtain data needed for the safe storage and handling of the waste contained in and received by the DST System. The plan will address data needs from all phases of the stored waste (gas, liquid, and solid). The organization and content of the DST System WAP will be based on regulatory requirements contained in WAC 173-303-300, 40 CFR 264.13, 40 CFR 265.13, 40 CFR 265.200 and will follow the Environmental Protection Agency (EPA) Draft Waste Analysis Plan Guidance Manual. Some of the requirements mentioned in Tri-Party Agreement (TPA) milestone M-44 will be included in addition to the above regulatory requirements. Each of the major sections of the DST System WAP is referenced to specific regulatory citations, EPA guidance manual section, and/or other requirements. The introduction and reference sections are added for user information.

The Data Quality Objective (DQO) process is being used to determine the actual data requirements to be contained in the DST System WAP. The content of Sections II, III, IV and V will be based on information from various DQOs. The content of the remaining sections will be similar to that contained in the current DST System WAP, but with updated information.

Note: **Information requirements in the actual DST System WAP will be based on results from the pertinent DQOs and will be similar but not identical to those contained in this outline. Information contained in the tables in this outline is for format illustration purposes only and not for actual use.**

Introduction:

This section will state the purpose of the DST System WAP and describe its relationship with the Tank Waste Analysis Plan and Tank Characterization Plan.

I. Facility Description: (Section 2.1)

A. Description of the DST System: Describes the design parameters, waste management procedures, and waste management processes. This section will be similar in content to the current DST System WAP, but will include updated information.

B. Identification of the Types and Quantities of Hazardous Waste: Describes the types and EPA/Ecology classification of waste to be managed in the DST System. Includes waste codes, treatability groups, and a description of processes that produced the waste. Waste that cannot be accepted will be identified with the rationale for exclusion. This section will be arranged in a chart, similar to Table 1.

TABLE 1: Waste Received by the DST System

Facility	Identity of Waste	Process Generating Waste	Rationale for Waste Designation	EPA Waste Code	LDR Waste
T Plant	Liquid mixed waste from 2706-T	Equipment decontamination	Mixture with listed waste	D001-D011, D018, DO19, WP02	Yes
SST	Waste transfer from 242A-Evaporator	Concentration of waste through the removal of volatiles.	Previously assigned waste codes	D001-D009, WPO2, PO63	Yes
DST	Waste transfer from 102-SY	Transfer from SST	Previously assigned waste codes	D002, D009, D0028, WC01	Yes
340 Facility	Liquid from the Radioactive Liquid Waste System	Removal of waste in the Radioactive Liquid Waste System	Mixture with listed waste	D002, D009, D0028, WC01	Yes

C. Description of Waste Management Units: Contains descriptions of the changes that will occur to the waste while stored in the DSTs. The changes will be minimal, since the DSTs store waste prior to shipment to treatment and disposal facilities. The changes described will include the addition of water to high heat tanks and pH adjustments by the addition of caustic.

D. Waste Acceptance Criteria: Contains information that must be furnished prior to waste acceptance into the DST System and prior to transfers within the DST System. This information will be used to assure the safe handling of the waste, evaluate the waste for conformance to specific parameter limits and for any other operational consideration. The limits (such as pH and EPA waste codes) will be indicated in chart form. The parameter limits and information requirements are subject to change as regulations, operating conditions, new DQOs or other restrictions warrant. Deviation from these

requirements will only be allowed if the conditions and procedures included in "Special Procedural Requirements" (section VI) are followed.

Waste acceptance information required for units, other than the SST System and DST System are indicated in Table 2. Information needed prior to shipment of waste from SSTs or DSTs into a DST are included in Table 3. Applicable limits will be added to these tables or incorporated into a separate table.

Table 2: Information Required Prior To Waste Acceptance Approval For Transfers From Sources Other Than Double Shell Tanks and Single Shell Tanks

INFORMATION	JUSTIFICATION
List of all waste codes	WAC 173-303-070 WAC 173-303-380 (2)(a) WHC-CM-7-5 (7.6.2.2)
Organic content of the waste (% TOC and presence of a free hydrocarbon layer)	WAC 173-303-300 (2)
Statement on whether or not the waste has changed since it was last shipped.	WAC 173-303-300 (4)(a)
Description of waste as it will appear on the manifest or shipping paper.	WAC 173-303-300 (4)(b)
Detailed chemical and physical analysis of the waste. Copies of lab results should also be submitted. Analyses must include Inductively Coupled Plasma (ICP), Ba, Cd, Cr, Pb, Ag, As, Hg, Se, NO_2^-, NO_3^-, OH^-, TOC, volatile organic analysis (VOA), Pu, and differential Scanning Calorimeter.	WAC 173-303-300 (2)
Quantity of waste and when shipment is expected.	WAC 173-303-380 (1)(a)
Certification as to the applicability of any Land Disposal Restrictions (LDR)	40 CFR 268.7 (a)(2) WAC 173-303-140
Material Balance	WAC 173-303-380 (2)(b)
Authorized signature for shipment	WHC-CM-7-5 (7.8.2.1 (8,c)
Compatibility	WAC 173-303-300 (2)
Heat generation	WAC 173-303-300 (2)
Generators WAP on file with DST Environmental Engineering	WAC 173-303-300 (5)(e)

TABLE 3: Information Required Prior For Waste Acceptance Approval For Transfers From Double Shell Tanks and Single Shell Tanks

INFORMATION	JUSTIFICATION
List of all waste codes	WAC 173-303-070 WAC 173-303-380 (2)(a) WHC-CM-7-5 (7.6.2.2)
Organic content of the waste (% TOC and presence of a free hydrocarbon layer)	WAC 173-303-300 (2)
Description of waste as it will appear on any shipping papers.	WAC 173-303-300 (4)(b)
Chemical and physical analysis of the waste in detail sufficient to address all operational parameters including compatibility issues.	WAC 173-303-300 (2) and
Quantity of waste and when shipment is expected.	WAC 173-303-380 (1)(a)
Statement as to the applicability of any Land Disposal Restrictions (LDR)	40 CFR 268.7 (a)(2) WAC 173-303-140
Material Balance	WAC 173-303-380 (2)(b)
Authorized signature for shipment	WHC-CM-7-5 (7.8.2.1,(8)(c)) WAC 173-303-180 (3)
Compatibility	WAC 173-303-300 (2)
Heat generation	WAC 173-303-300 (2)

Analysis Parameters: (WAC 173-303-300 (5)(a) and EPA manual section of 2.2)

A. Criteria and Rationale for Analysis Parameter Selection: Includes a description of the parameters identified for testing, analysis, or monitoring as determined through the DQO process. The rationale for selecting the parameters as determined during the DQO process will also be included. Required analyses will be limited to:

1. Fingerprinting waste received to verify the appropriate waste was received (as determined by the DQO). It will not be the intent of the fingerprinting to confirm generator waste designations unless required by the DQO.

2. Obtaining other information necessary for the safe storage and/or handling of the waste which has been identified by the DQO.

   Most of the analytical requirements will be based upon existing safety issue-based DQOs. Additional waste analysis data requirements identified by the DST System WAP DQO will also be incorporated into the DST System WAP. Analytical requirements are expected to change with the issuance of new regulations and the issuance and modification of DQOs. Table 4 presents a partial list of DQOs which will be reviewed. Testing requirements contained from DQOs that are reviewed and which pertain to DSTs will be summarized in a table similar to Table 5

TABLE 4: DQOs to be Reviewed for DST System WAP Data Requirements

ABBREVIATED TITLE OF DQO	DOCUMENT NUMBER
Tank Safety Screening	WHC-SD-WM-SP-004
Rotary Core Vapor Sampling	WHC-SD-WM-SP-003
DST Core Flammable Gas	WHC-SD-WM-DQO-004
Waste Compatibility	WHC-SD-WM-DQO-001
Generic In-Tank Health and Safety Vapor Issue Resolution	WHC-SD-WM-DQO-002
Crust Burn Associated with Flammable Gas Tanks	WHC-SD-WM-DQO-003

Table 5: DQO Testing Requirements

Title of DQO	Required Analysis	Test Methods
Rotary Sampling Core Vapor Sampling	Inorganic gases	NIOSH 6010, OSHA ID-182/188/190/200, EPA
Tank Safety Screening	Fuel Energy Total Alpha % Moisture % Lower flammability limit	None specified
Crust Burn for Rotary Core Drilling	Differential Scanning Calorimeter If DSC over 140, then radionuclides are also needed	None specified

B. Special Parameter Selection: Describes procedures for addressing special analytical needs. Includes procedures for accepting new waste streams, addressing missing data, and/or for adding or deleting analysis on a case by case basis. These data requirements will be determined in the DQO.

III. Selection of Sampling Procedures: (WAC 173-303-300(5)(b)(c), Section 2.3)

A. Sampling Methods and Equipment: Includes a description of the sampling methods and equipment to be used, referring to Hanford approved sampling procedures. Due to concerns relating to radiation exposure, these methods may deviate from those published in SW-846.

B. Sampling Preservation and Storage: Samples will be preserved and stored as required by the selected sampling and analytical procedures.

C. Sampling QA/QC Procedures: Identifies the QA/QC procedures that will be used for obtaining samples. This section will name a document that will contain the QA/QC procedures to be followed. The exact content will be determined in the DQO.

D. Health & Safety Protocols for Sampling: Requires that only properly trained personnel may be used to obtain samples. Requires the use of all appropriate protective equipment.

IV. Laboratory Selection: (WAC 173-303-300(5)(b)(c), Section 2.4)

A. Laboratory Selection: Provides the rationale and requirements for laboratory selection. Requirements will include 1) adequately trained personnel, 2) adequate QA/QC procedures, and 3) ability to safely handle the waste samples. Due to the radioactive nature of the waste, there are only a few laboratories that can conduct the analyses. Rationale for laboratory selection will be addressed in the DST System WAP DQO.

B. Analytical Methods: Describes the methods that will be used for analysis. The analytical methods will be selected from those approved for use at Hanford. The rationale for the selection of methods will be addressed during the DQO process. The selected Hanford approved methods may deviate from methods contained in SW-846 and ASTM to address Hanford-specific problems, such as radiation exposure.

V. Waste Re-evaluation: (WAC 173-303-300 (5)(d), Section 2.5)

Provides the rationale to be used for the re-evaluation of waste streams. This section includes a set of frequencies for waste review and a description of new waste created during waste handling. It is anticipated that the waste will be reviewed at least every two years, or when it is anticipated that the waste composition has materially changed. The specific period for reviewing continuing waste streams will be resolved during the DQO process.

VI. Special Procedural Requirements: (Section 2.6)

Contains a description of any special procedures to be followed for special waste to ensure compliance with the regulations. Describes procedures to be followed in the event of unusual circumstances. The content and scope of this section will be discussed during the DQO.

VII. Reference:

Provides a list of documents that are referenced by the DST System WAP or used in support of the DST System WAP.

L. D. Arnold	WHC	ADM-SPI	B2-35
D. C. Board	WHC	ESQ-QA	S1-57
K. A. Boes	WHC	TWR/CP	R3-27
R. C. Bowman	WHC	RR-RS	H6-24
R. M. Carosino	RL	OCC	A4-52
C. E. Clark	RL	EAP-RPS	A5-15
R. A. Dodd	WHC	TWRS Plant	R1-51
D. L. Duncan	EPA		HW-106
D. G. Farwick	WHC	ESQ-QA	H4-16
R. L. Fritz	WHC	TWR-CP	B4-08
C. J. Geier	WHC	TWRS Plant	R2-50
L. A. Garner	WHC	TWRS Plant	R2-86
R. D. Gustavson	WHC	TWRS Plant	R1-51
A. Hon	RL	TOP/TST	R3-72
M. N. Islam	WHC	ESQ-SFT	R3-08
G. R. Konzek	RL	TWP-MRF	S7-52
S. J. Lijek	MACTEC	GSSC	R3-77
F. Ma	Ecology	DPTEC	B5-18
P. J. Mackey	WHC	GCO-EC	B3-15
R. W. Mattichak	WHC	YWR-CP	B4-08
M. A. McLaughlin	WHC	ADM/SPI	B2-35
S. E. McKinney	Ecology	DPTEC	Lacey
G. M. Neath	RL	TWP-CSTS	S7-52
D. Pfluger	WHC	TWR/ENG	H5-52
S. M. Price	WHC	RR-RS	H6-23
C. O. Ruud	RL	TOP/TST	R3-72
T. J. Snider	WHC	TWRS Plant	R2-86
C. M. Smith	WHC	RR-RS	H6-30
S. A. Thompson	WHC	RR-RS	H6-24
C. Van Katwijk	WHC	TWR/CP	B4-52
RCRA Files/GHL	WHC	RR-RS	H6-23

ADMINISTRATIVE RECORD: Double-Shell Tank System, S-2-3, WHC EPIC, H6-08

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