

Meeting Minutes

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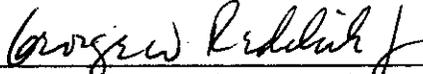
**B Plant Project Managers Meeting
Ecology Office - Kennewick
May 11, 1998
7:00 a.m.**

The undersigned indicate, by their signatures, that these meeting minutes reflect the actual occurrences of the above-dated meeting.


Date: 18 JUN '98
Gregory J. LeBaron, B Plant Contractor Representative, BWHC


Date: 6/5/98
David T. Evans, Project Manager, DOE-RL


Date: 6/18/98
Ted A. Wooley, Project Manager, Washington State Department of Ecology


Date: 6/18/98
George W. Reddick, PHMC Representative, FDH

DID NOT ATTEND—NO SIGNATURE REQUIRED
Date: _____
Cindy Grant, WDOH Representative

Agenda: The agenda for the May 11, 1998 meeting included the following B Plant Facility Transition topics:

- 1) Approve Minutes from Previous Project Managers Meeting
- 2) Formalize the agreement on placing Tk-100 in the B Plant Canyon
- 3) Formalize the agreement on towers 28 and 30
- 4) Other items
- 5) Next meeting June 18, 1998, at 8:00 a.m. in the Ecology Building



DISTRIBUTION:

R. M. Carosino	RL	A4-52*
C. E. Clark	RL	A5-15*
D. T. Evans	RL	R3-79
S. D. Godfrey	BWHC	S4-49
R. W. Bailey	BWHC	S4-49*
A. M. Hopkins	FDH	N1-26*
M. N. Jaraysi	Ecology	B5-18*
G. J. LeBaron	BWHC	S6-15*
E. M. Mattlin	RL	A5-15*
J. E. Mecca	RL	R3-79*
N. A. Ballantyne	FDH	N1-26*
M. D. Olsen	BWHC	H5-31*
G. W. Reddick	FDH	N1-26
C. D. Sorensen	BWHC	R3-56*
T. A. Wooley	Ecology	B5-18

*Distribution via cc:mail w/o Attachments

ADMINISTRATIVE RECORD [B Plant TS-2-3]: EDMC H6-08

Washington State Department of Ecology Nuclear and Mixed Waste Hanford Files,
P.O. Box 47600, Olympia, Washington 98504-7600

Environmental Protection Agency Region 10, Seattle, Washington 98101, Mail Stop HW-070
(Records Center)

Cindy Grant, Washington State Department of Health, 1511 3rd Avenue, Suite 700, Seattle,
Washington 98101

Please send comments on the distribution list to Greg LeBaron, BWHC (S6-15), (509) 373-1792
or Steve Godfrey, BWHC (S4-49), (509) 372-0501.

**B Plant Project Managers Meeting
Ecology Office - Kennewick
May 11, 1998
7:00 a.m.**

SUMMARY OF DISCUSSION AND COMMITMENTS/AGREEMENTS

Approve Minutes from Previous Project Manager Meeting

Mr. Ted Wooley, Washington State Department of Ecology (Ecology); Mr. Dave Evans, Department of Energy, Richland Operations Office (RL); Mr. George Reddick, Fluor Daniel Hanford, Inc. (FDH); and Mr. Greg LeBaron, B&W Hanford Company (BWHC) approved and signed the meeting minutes from the April 16, 1998, B Plant Project Managers Meeting. The minutes were sent out, prior to the meeting, for review and all corrections were incorporated, prior to approval.

Formalize the Agreement on Placing Tk-100 in the B Plant Canyon

It was agreed to place Tk-100 in the B Plant canyon and to do the following:

- ◆ Revise the B Plant Part A to include Tk-100
- ◆ Revise the Preclosure Work Plan and other documents as needed to reflect this change
- ◆ Perform a USQ screening to ensure the increased radiological and chemical inventory added by placing the tank in the canyon is covered in the B Plant BIO.

Formalize the Agreement on Towers 28 and 30

In the previous Project Manager Meeting, the condition concerning the liquid levels in towers 28 and 30 and the difficulty in obtaining a sample to meet the Sample and Analysis Plan (SAP) was discussed. It was agreed that B&W would submit a plan to address the situation (**Action PMM-BP-98-17**). The plan, "Remaining Liquid in Vessels T-28-1 and T-30-1" (attachment 1), completes this action and identifies what will be done concerning the commitment in the SAP. Agreement of these meeting minutes constitutes agreement to the plan of how to address the commitment in the SAP.

Other Items

The Focus Sheet required to initiate the public comment period on the administrative closure of the ISO west tank was discussed. Mr. Wooley agreed to review and comment on the Focus Sheet before leaving on vacation. Ms. Mattlin will work with Mike Turner of Ecology to initiate the *public comment period*.

The action items were not statused. Those present addressed items associated with WESF and the Low Level Waste (LLW) project.

The B Plant/WESF Project, HNF-2698, Rev. 0, Sampling and Analysis Plan (SAP) for WESF Drains and TK-100 Sump was discussed. Comments were incorporated into the plan and the SAP was approved for implementation (attachment 2).

Next Meeting

The next meeting will be June 18, at 8:00 a.m. in the Ecology Building as identified in the previous meeting.

OPEN OR RECENTLY CLOSED ACTION ITEMS

Action Item	Responsible Person	Description	Completion Date
PMM-BP-97-12	Steve Godfrey BWHC	Address and resolve issue of insufficient information to adequately identify remaining hazards on B Plant End Point Closure letters.	OPEN
PMM-BP-98-3	Ted Wooley Ecology	Evaluate need for PE stamp for administrative closure of the ISO West Organic Storage Tank	CLOSED 4/98
PMM-BP-98-9	Steve Godfrey BWHC	Place a copy of the End Point Document in the administrative record	CLOSED 3/98
PMM-BP-98-11	Ted Wooley ECOLOGY	Provide comments on Administrative Closure Plan by 4/15/98.	CLOSED 4/98
PMM-BP-98-12	Cindy Grant DOH	Provide Greg LeBaron with the name of the DOH person that needs to be involved in testing of the shrouded probe (W-059 Project).	CLOSED 3/98
PMM-BP-98-13	ALL	Look at the format in the TPA for the Key Transition Documents. Determination to be made at next meeting. Format of documents.	OPEN
PMM-BP-98-14	Greg LeBaron BWHC	Set up Comment Resolution Meeting for the Pre Closure Work Plan.	OPEN
PMM-BP-98-15	Ted Wooley Ecology	Provide a conditional closure letter for the ISO west tank	
PMM-BP-98-16	Kent Smith BWHC	Provide the analytical data already received to Ted Wooley	
PMM-BP-98-17	Kent Smith BWHC	Provide information to Ted about the limitations and benefits of sampling T-28-1 and T-30-1	

Only open items and those, which have been closed since approval of the last meeting minutes, will be listed.

SCHEDULING THE NEXT MEETING

The next B Plant Project Managers Meeting is scheduled for June 18, 1998, at Ecology, Conference Room, in Kennewick, from 8:00 a.m. to 10:00 p.m..

**May 11, 1998
ATTENDEE LIST**

NAME	ORGANIZATION	PHONE NUMBER
Dave Evans	DOE-RL/TPD	373-9278
Steve Godfrey	BWHC	372-0501
Ted Wooley	Ecology	736-3012
George Reddick	FDH	372-2326
Greg LeBaron	BWHC	373-1792
Ellen Mattlin	DOE-RL/EAP	376-2385
Fen Simmons	BWHC	373-0413
Tom Beam	BWHC	372-0019
Dewey Robbins	BWHC	372-0001

ATTACHMENT 1

Remaining Liquid in Vessels

T-28-1 and T-30-1

Remaining Liquid in Vessels T-28-1 and T-30-1

Summary

The liquid remaining in the solvent extraction towers T-28-1 (~422 gal.) and T-30-1 (~175 gal) cannot be easily removed with existing equipment or by other reasonable means. Therefore, these volumes represent the minimum heels for both vessels and will remain in the vessels following deactivation. Previous sample results have shown no exotherms on the DSC analysis which means the solutions are non-reactive. Therefore, further sampling is not required to confirm that the solutions are safe to leave in place following deactivation. Adequate process knowledge, via previous sample results and process history, is available to document the amount of hazardous substance remaining in these vessels.

State of Washington, Department of Ecology has reviewed and concurred with this position.

Background

The liquid remaining in T-28-1 and T-30-1 has been in the towers since the solvent extraction system was placed in wet standby in 1978. These towers are part of the solvent extraction system used to remove strontium from PUREX waste. Evidently all the liquid was not removed when the towers were flushed as liquid was found in two of the four towers when they were checked in 1996. The aqueous flushes from the towers was stored in B Plant along with the organic solutions remaining in T-28-1 and T-30-1 carry the same pedigree as the decant solutions sent to tank farms in 1996. Since no exotherms were shown on the samples, there is no potential for runaway reactions in T-28-1 or T-30-1.

It was agreed per the Sampling and Analysis Plan (SAP) for B Plant Solutions (HNF-SD-WM-EV-118) that the materials in T-28-1 and T-30-1 would be transferred into Tk-24-1 and sampled. A verification split from this sample was also to be sent to 325 Laboratory. This verification sample is one of two agreed to in the SAP. The first verification split was taken in February 1998 from Tk-21-1 and represents the combined materials from Tk-21-1, Tk-18-3, T-18-2, Tk-35-2 and Tk-32-1.

The pump available to transfer the material out of these towers requires personnel on the deck next to the open cells during the transfer. The transfer is expected to take approximately 4 hours. Due to the high dose rates involved in this area of the canyon the personnel exposure could be as high as 700 mRem. This is above the administrative control level of 500 mRem/yr and would require multiple entries to avoid violating this limit.

Justification

Based on the above information, the liquid volume remaining in T-28-1 and T-30-1 is considered to be at minimum heel and does not need to be sampled for the following reasons:

- a. DSC analysis on two samples of similar material show no exotherms.
- b. The only pump available to transfer the material will leave a 10 inch heel or 130 gallons in each tower.
- c. Transfer line holds up is 50 gallons or more.
- d. The heel and transfer line volume are more than the volume of T-30-1, and only 250 gallons can be transferred from T-28-1.
- e. The 250 gallons transferred from T-28-1 will be added to a 900 gallon heel in Tk-24-1 and the level indicator in Tk-24-1 is only accurate to 167 gallon increments, so it will be difficult to determine how much is actually transferred.
- f. Exposure to perform the transfer will be as high as 700 mRem which is not good ALARA practice.
- g. Obtaining a sample of this solution will probably not give better results than the samples already taken in Tk-24-1 in 1996.
- h. The towers will be left open and the liquid allowed to evaporate.

The reasons listed above justify declaring the material in the towers at minimum heel with no additional sampling required.

ATTACHMENT 2

**B Plant/WESF Project, HNF-2698, Rev. 0
Sampling and Analysis Plan (SAP)
for WESF Drains and TK-100 Sump**

DISTRIBUTION SHEET

To	From	Page 1 of 1
Distribution	F. M. Simmons	Date
Project Title/Work Order		EDT No. 622565
B PLANT/WESF PROJECT, HNF-2698, REV. 0, SAMPLING AND ANALYSIS PLAN (SAP) FOR WESF DRAINS AND TK-100 SUMP		ECN No.

Name	MSIN	Text With All Attach.	Text Only	Attach./Appendix Only	EDT/ECN Only
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B&W Hanford Company

T. G. Beam	S6-51		X		
D. D. Beers	S6-81				
L. D. Brist	S6-51		X		
S. D. Godfrey	S4-49		X		
E. D. Robbins	S6-60		X		
P. T. Saueressig	S6-81		X		
F. M. Simmons (2)	S6-60		X		

ALA

D. B. Bonfoey	S3-90		X		
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COGEMA Engineering Corporation

J. Y. Smith	S3-90		X		
R. S. Viswanath	S3-90		X		

Fluor Daniel Hanford, Inc.

G. W. Reddick, Jr.	N1-26		X		
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Waste Management Federal Services of Hanford, Inc.

B. M. Colley	H6-14		X		
D. L. Edwards	H1-12		X		
D. B. Hardy	T6-12		X		
J. G. Hogan	H1-12		X		
K. N. Pool	H6-14		X		
S. M. Steele	H6-14		X		

U.S. Department of Energy, Richland Operations Office

D. T. Evans	R3-79		X		
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Washington State Department of Ecology

MAY 14 1998
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ENGINEERING DATA TRANSMITTAL

Page 1 of 5
1. EDT 622565

2. To: (Receiving Organization) DISTRIBUTION	3. From: (Originating Organization) B PLANT/WESF PROJECT	4. Related EDT No.: N/A
5. Proj./Prog./Dept./Div.: B PLANT WESF PROJECT/LOW LEVEL WASTE ISOLATION/16E00	6. Design Authority/ Design Agent/Cog. Engr.: F. M. Simmons	7. Purchase Order No.: N/A
8. Originator Remarks: FOR RELEASE		9. Equip./Component No.: N/A
		10. System/Bldg./Facility: WESF
11. Receiver Remarks: 11A. Design Baseline Document? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		12. Major Assm. Dwg. No.: N/A
		13. Permit/Permit Application No.: N/A
		14. Required Response Date: N/A

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(A) Item No.	(B) Document/Drawing No.	(C) Sheet No.	(D) Rev. No.	(E) Title or Description of Data Transmitted	Approval Designator	Reason for Transmittal	Originator Disposition	Receiver Disposition
1	HNF-2698		0	SAMPLING AND ANALYSIS PLAN (SAP) FOR WESF DRAINS AND TK-100 SUMP	E	1		

16. KEY					
Approval Designator (F)		Reason for Transmittal (G)		Disposition (H) & (I)	
E, S, Q, D or N/A (see WIC-CM-3-5, Sec.12.7)		1. Approval	4. Review	1. Approved	4. Reviewed no/comment
		2. Release	5. Post-Review	2. Approved w/comment	5. Reviewed w/comment
		3. Information	6. Dist. (Receipt Acknow. Required)	3. Disapproved w/comment	6. Receipt acknowledged

17. SIGNATURE/DISTRIBUTION (See Approval Designator for required signatures)											
(G) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN	(G) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN
1		Design Authority	L. D. Brist	5/17/98		1		Dan Edwards	see attached		
1		Design Agent	N/A			1		Paul Saueressig	Paul Saueressig	4/14/98	
1		Cog. Eng.	L. D. Brist	5/13/98		1		Rampur S Viswanath	see attached		
1		Cog. Mgr.	E. Dewey Robbins	5-12-98		1		Karl N. Pool	see attached		
		QA				1		F. M. Simmons	see attached	5/14/98	2660
		Safety				1		T. A. Wooley	see attached		
1		Env.	T.G. Beam	5/13/98		1		D. Hardy	see attached		

18. Signature of EDT Originator <i>F. M. Simmons</i> Date: 5/12/98	19. Authorized Representative Date for Receiving Organization N/A	20. Design Authority/ Cognizant Manager <i>ED Robbins</i> Date: 5-12-98	21. DOE APPROVAL (if required) Ctrl. No. <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/comments <input type="checkbox"/> Disapproved w/comments
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8. Originator Remarks: FOR RELEASE		9. Equip./Component No.: N/A
		10. System/Bldg./Facility: WESF
11. Receiver Remarks: 11A. Design Baseline Document? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		12. Major Assm. Dwg. No.: N/A
		13. Permit/Permit Application No.: N/A
		14. Required Response Date: N/A

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1	HNF-2698		0	SAMPLING AND ANALYSIS PLAN (SAP) FOR WESF DRAINS AND TK-100 SUMP	E	1		

16. KEY			
Approval Designator (F)	Reason for Transmittal (G)		Disposition (H) & (I)
F, S, O, D or N/A (see WHC CM-3-E, Sec. 12.7)	1. Approval 2. Release 3. Information	4. Review 5. Post-Review 6. Dist. (Receipt Acknow. Required)	1. Approved 2. Approved w/comment 3. Disapproved w/comment 4. Reviewed w/comment 5. Reviewed w/comment 6. Receipt acknowledged

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		Design Authority	L. D. Brist					Dan Edwards			
		Design Agent	N/A					Paul Saueressig			
		Coop. Eng.	L. D. Brist					Rampur S Viswanth			
		Coop. Mgr.	E. Dewey Robbins					Karl N. Pool			
		QA						F. M. Simmons		5/17/98	260
		Safety						T. A. Wouley			
		Env.	T.G. Beam								

18. Signature of EDT1 Originator <i>F. M. Simmons</i> Date: 5/17/98	19. N/A Authorized Representative Date for Receiving Organization	20. ED Robbins Date: 5-17-98 Design Authority/ Cognizant Manager	21. DOE APPROVAL (if required) Ctrl. No. <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/comments <input type="checkbox"/> Disapproved w/comments
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8. Originator Remarks: FOR RELEASE		9. Equip./Component No.: N/A
11. Receiver Remarks: 11A. Design Baseline Document? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		10. System/Bldg./Facility: WESF
		12. Major Assm. Dwg. No.: N/A
		13. Permit/Permit Application No.: N/A
		14. Required Response Date: N/A

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1	HNF-2698		0	SAMPLING AND ANALYSIS PLAN (SAP) FOR WESF DRAINS AND TK-100 SUMP	E	1		

16. KEY			
Approval Designator (F)	Reason for Transmittal (G)		Disposition (H, & I)
E, S, Q, D or N/A (see WHC-CM-3-5, Sec.12.7)	1. Approval 2. Release 3. Information	4. Review 5. Post-Review 6. Dist. (Receipt Acknow. Required)	1. Approved 2. Approved w/comment 3. Disapproved w/comment 4. Reviewed no/comment 5. Reviewed w/comment 6. Receipt acknowledged

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(C) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN	(G) Reason	(H) Disp.	(J) Name	(K) Signature
1		Design Authority L. D. Brist				1		Dan Edwards	<i>[Signature]</i>
1		Design Agent N/A				1		Paul Saueressig	
1		Cog. Eng. L. D. Brist				1		Rampur S Viswanath	
1	1	Cog. Mgr. E. Dewey Robbins	<i>[Signature]</i>			1		Karl N. Pool	
		QA				1	1	F. M. Simmons	<i>[Signature]</i>
		Safety				1		T. A. Wooley	<i>[Signature]</i>
1		Env. T.G. Beam							

18. <i>[Signature]</i> Signature of EDT Originator Date: 5/12/88	19. N/A Authorized Representative Date for Receiving Organization	20. <i>[Signature]</i> ED Robbins Date: 5-12-88 Design Authority/ Cognizant Manager	21. DOE APPROVAL (if required) Ctrl. No. <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/comments <input type="checkbox"/> Disapproved w/comments
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8. Originator Remarks: FOR RELEASE		9. Equip./Component No.: N/A
11. Receiver Remarks: 11A. Design Baseline Document? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		10. System/Bldg./Facility: WESF
		12. Major Assm. Dwg. No.: N/A
		13. Permit/Permit Application No.: N/A
		14. Required Response Date: N/A

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1		Cog. Eng.	L. D. Brist			1		Rampur S Viswanath	<i>[Signature]</i>		
1		Cog. Mgr.	E. Dewey Robbins			1		Karl N. Pool	<i>[Signature]</i>		
		QA				1	1	F. M. Simmons	<i>[Signature]</i>	5/12/98	
		Safety				1		T. A. Wooley	<i>[Signature]</i>		
1		Env.	T.G. Beam			1		D. Hardy			

18. <i>[Signature]</i> Signature of EDT Originator Date: 5/12/98	19. N/A Authorized Representative Date for Receiving Organization	20. ED Robbins <i>[Signature]</i> Design Authority/ Cognizant Manager Date: 5-12-98	21. DOE APPROVAL (if required) Ctrl. No. <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/comments <input type="checkbox"/> Disapproved w/comments
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1		Design Authority	L. D. Brist			1		Dan Edwards			
1		Design Agent	N/A			1		Paul Saueressig			
1		Cog. Eng.	L. D. Brist			1		Rampur S Viswanath			
1		Cog. Mgr.	E. Dewey Robbins			1		Karl N. Pool			
		QA				1	1	F. M. Simmons	<i>[Signature]</i>	5/12/98	860
		Safety				1		T. A. Wooley	<i>[Signature]</i>	5/13/98	
1		Env.	T.G. Beam			1		D. Hardy	<i>[Signature]</i>	5/13/98	

18. <i>[Signature]</i> Signature of EDT Originator Date: 5/12/98	19. N/A Authorized Representative Date for Receiving Organization	20. ED Robbins <i>[Signature]</i> Date: 5-12-98 Design Authority/ Consultant Manager	21. DOE APPROVAL (if required) Ctrl. No. <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/comments <input type="checkbox"/> Disapproved w/comments
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SAMPLING AND ANALYSIS PLAN (SAP) FOR WESF DRAINS AND TK-100 SUMP

F. M. Simmons, Author
BWHC, Richland, WA 99352
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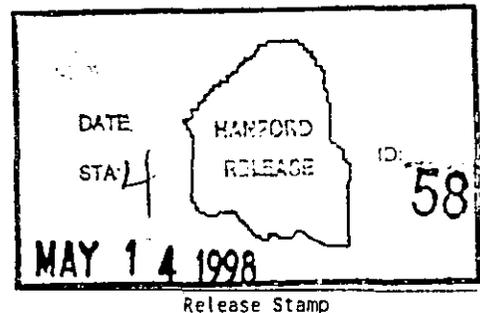
Key Words: Tk-100 sump, WESF floor drains, characterization, sampling, analysis

Abstract: The intent of this plan is to define the responsibilities of the various organizations involved in sampling and analyzing the WESF floor drains and Tk-100 sump.

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SAMPLING AND ANALYSIS PLAN FOR WESF DRAINS AND TK-100 SUMP

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1.0 INTRODUCTION.

Tk-100 is currently used as a catch tank to transfer low level liquid waste from WESF to Tank Farms via B Plant. This system is being modified as part of the WESF decoupling since B Plant is being deactivated. As a result of the 1,1,1-trichloroethane (TCA) discovery in Tk-100, the associated WESF floor drains and the pit sump need to be sampled. Breakdown constituents have been reviewed and found to be non-hazardous. There are 29 floor drains that tie into a common header leading into the tank. To prevent high exposure during sampling of the drains, Tk-100 will be removed into the B Plant canyon and a new tank will be placed in the pit before any floor drain samples are taken. The sump will be sampled prior to Tk-100 removal. A sample of the sludge and any liquid in the sump will be taken and analyzed for TCA and polychlorinated biphenyl (PCB). After the sump has been sampled, the vault floor will be flushed. The flush will be transferred from the sump into Tk-100. Tk-100 will be moved into B Plant. The vault will then be cleaned of debris and visually inspected. If there is no visual indication of TCA or PCB staining, the vault will be painted and a new tank installed. If there is an indication of TCA or PCB from laboratory analysis or staining, further negotiations will be required to determine a path forward. A total of 8 sets of (3) 40ml samples will be required for all of the floor drains and sump. The sump set will include one 125ml solid sample. The only analysis required will be for TCA in liquids. PCBs will be checked in sump solids only.

The Sampling and Analysis Plan (SAP) is written to provide direction for the sampling and analytical activities of the 29 WESF floor drains and the Tk-100 sump. Analytical activities will meet the requirements of SW-846 (see Section 6.0, References).

1.1 Purpose and Scope.

The intent of this project is to determine whether the 29 Waste Encapsulation and Storage Facility (WESF) floor drain piping and the Tk-100 sump are free from contamination with TCA. The purpose of samples is to show the TCA has been effectively removed from the drain lines through about 10 years of use since discontinuation of TCA use in the plant. A total of 8 sets of (3) 40 ml samples will be taken for analysis. The floor drains will be grouped according to location, thereby minimizing the number of samples required.

This SAP defines the responsibilities and requirements of each organization involved. The responsibilities include proper documentation. Requirements are the Quality Assurance/Quality Control (QA/QC) controls as required by the SW846.

This SAP describes activities associated with collecting samples from 29 WESF floor drains and Tk-100 sump and transferring the samples to the Special Analytical Support (SAS) Laboratory/222S for analysis. The activities associated with collecting the samples include:

1. Pre-sampling activities
2. Sample collection
3. Sample transport to SAS Laboratory/222S
4. Analysis requirements

Eight separate sets of three samples will be obtained. Each sample will be analyzed for TCA and/or PCB as shown in Table 1.

2.0 DESCRIPTION

Eight sets of (3) 40ml samples will be taken. Seven of these sets of samples will be taken from the floor drains that will be grouped according to use and location. One sample set will be taken from the Tk-100 sump. Since the floor drains all tie into a common header, they will be sampled at the sample port upstream of Tk-100. Floor drains will be grouped as follows and each grouping will represent 1 sample set:

Area:	Grouping:
Crane Maintenance Area	One floor drain
Canyon	Four floor drains
HMS, CMS/Decon Sink/Shower	Five floor drains
Service Gallery and A Cell Airlock	Two floor drains
Truck Port/Pool Cell/G Cell Airlock	Three floor drains
AMU/Transmitter rooms/Mezzanine	Eleven floor drains
Operating Gallery	Three floor drains

Rank logic is based on use.

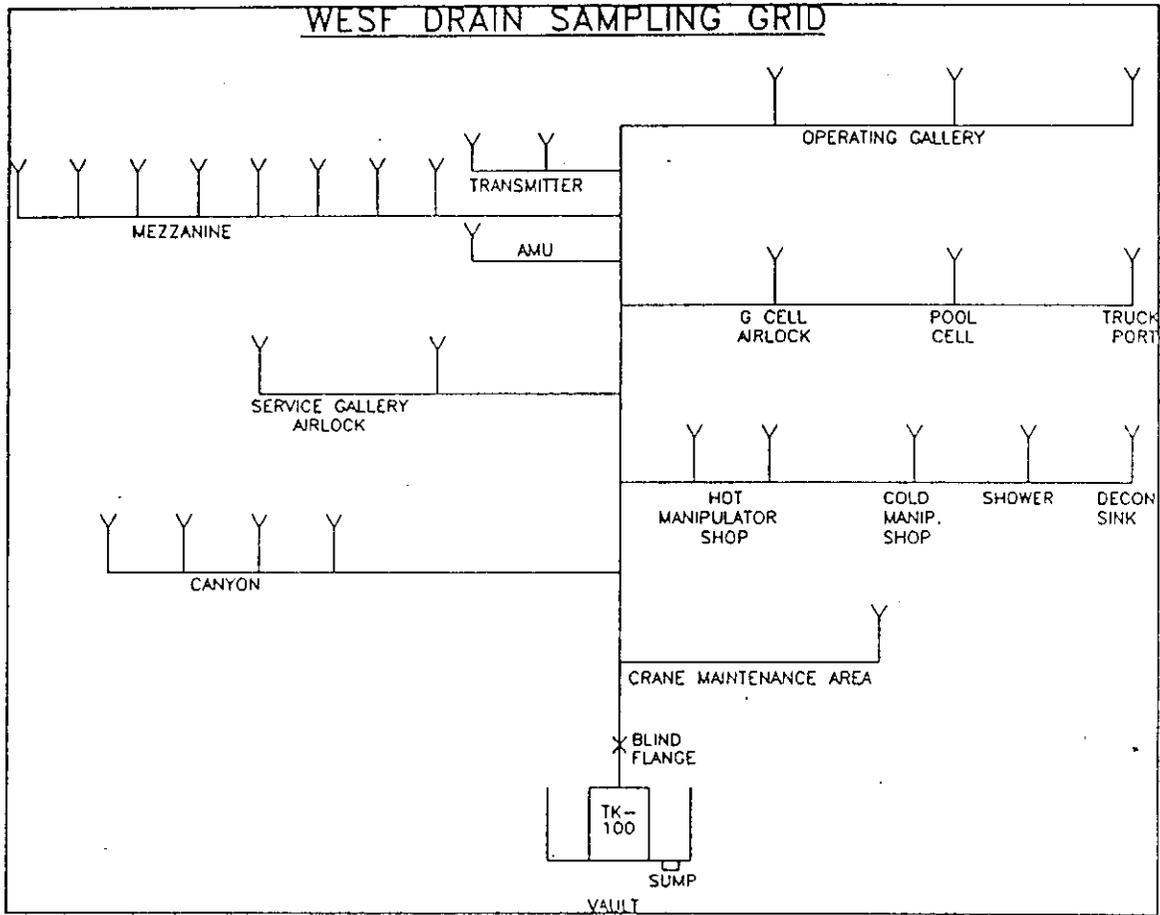


Figure 1 - WESF Drain Sampling Grid

3.0 ORGANIZATIONAL RESPONSIBILITIES

The responsibilities and descriptions below are related to activities required by the different organizations.

3.1 WESF Technical Support

- Issue SAP and coordinate sampling requirements.

3.2 WESF Facility Support

- Nuclear Process Operators will provide support to the sampling team by controlling water flow down each drain.
- Nuclear Process Operators will provide support to obtain the sample analysis according to the SAP, Sample Authorization Form, and the SAS Laboratory Quality Assurance Plan.
- Radiation Control Technicians will provide radiological surveys associated with sampling activities and shipping.

3.3 Special Analytical Support Laboratory (SAS)

- The SAS Laboratory will conduct the sample analysis according to this SAP, Sample Authorization Form, and the SAS Laboratory Quality Assurance Plan.
- The SAS Laboratory will submit a standalone data package to Analytical Support -Waste Management Hanford for validation.

3.4 Analytical Services - Waste Management Hanford

- Arrange and coordinate laboratory analysis of the samples.
- Maintain documentation for each sample.
- Transmit the complete data package to the Administrative Record and B&W Hanford Company.
- Validate data to a Level D.

3.5 Sampling and Mobile Laboratories

This team is responsible for taking the samples per SW-846 protocol and transporting the samples to the SAS Laboratory and initiating Chain of Custody (COC). Sampling and Mobile Laboratories (SML) is responsible for a trip blank with each sample set.

3.6 222S Laboratory

- Responsible for PCB analysis in Table 1 and QA/QC requirements in Table 2.
- The 222S Laboratory will submit a standalone data package to Analytical Support-Waste Management Hanford for validation.

4.0 SAMPLING

All sampling will be performed per SW-846 protocol and in accordance with WESF Radiological Control requirements. Requirements for personal protective equipment to be worn during sampling will be identified in the Radiation Work Permit.

4.1 Sample Locations

Samples will be taken from the sample port at the top of Tk-100 and from the sump in the Tk-100 pit.

Less than 10 gallons of deionized water will be drained down each floor drain to obtain a sample at the sample port.

4.2 Sample Identification

A sample number will be obtained from the Sample and Data Tracking System. The following information will be shipped with the sample:

- Identification (signature or initials) of the person collecting the sample
 - Sample number
 - Date and time the sample was collected
 - The analyses to be performed on the sample.
- Sample location and bottle specifications (volume, preservation, etc.).

4.3 Sampling Equipment

Sampling equipment will be provided by the SML. The sampling equipment will be cleaned per ES-SSPM-001 2.5.

4.4 Sample Collection

Samples will be collected with zero head space in (3) 40 ml containers for each sampling event or in 125 ml container for PCB.

4.5 Sample Handling

A COC and any radiological documentation will be filled out at the time of sampling and will accompany each sample set.

5.0 QUALITY ASSURANCE/QUALITY CONTROL REQUIREMENTS

5.1 Field Logbook

All sampling activities will be documented in logbooks maintained by the SML.

5.2 QA-QC

5.2.1 Samples

Analysis will be completed according to SAS laboratory QA/QC requirements for TCA. Analysis will be completed according to 222S laboratory QA/QC requirements for PCB.

5.2.2 Data Reporting and Validation

Each laboratory will issue a full data report including all QC within 45 days. A final validated data package is due to Ecology from Analytical Services within 90 days of when the sample is received in the laboratory.

The laboratory complete data package will contain:

1. All COC and laboratory forms
2. Analytical data
3. Case narrative from sample analysis (signed by a laboratory representative) to identify any anomalies and the corresponding corrective action
4. A reference table indicating which field sample number corresponds to the laboratory sample number
5. All QC analyses performed on the samples. All information required in WMH-CM-5-4, Sec 3.2, "Technical Verification of Analytical Laboratory Data Packages" for applicable method checklists

Data validation to Level D will be required for all samples.

5.2.3 Quality Assurance

Method-specific quality control calibrations are found in the analytical procedures. Sample quality requirements are identified in Table 2. The WESF Technical Support team will be notified prior to data reporting, should the quality control data not conform with the data requirements specified.

If the QA/QC requirements are not met, the samples are to be rerun. If the sample quantity does not allow a rerun, the data should be flagged as not meeting the limits.

6.0 REFERENCES

ES-SSPM-001, 2.5, *Cleaning of RCRA/CERCLA Sampling Equipment.*

EPA, *Test Methods for Evaluating Solid Waste*, 3rd Edition, SW-846 EPA/Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C., (latest revision).

HNF-SD-CP-QAPP-016, Rev. 2, *222S Laboratory Quality Assurance Plan*

HNF-SD-WM-QAPP-034, Rev. 2, *Special Analytical Support Quality Assurance Program Plan.*

LA-523-138, *Soxhlet Extraction of Solid Samples for Semivolatile and/or Pesticide and/or PCB Analysis*

Washington State Department of Ecology.

WHC-SD-EN-SPP-002, Rev. 2, *Data Validation Procedures for Chemical Analyses.*

WHC-SD-EN-SPP-001, Rev. 1, *Data Validation Procedures for Radiochemical Analyses.*

WMH-CM-5-4, *Laboratory Administration*, Section 3.20, "Technical Verification of Analytical Laboratory Data Packages"

7.0 LIST OF ACRONYMS

1,1,1-trichloroethane (TCA)

Chain Of Custody (COC)

Matrix Spike (MS)

Matrix Spike Duplicate (MSD)

Polychlorinated biphenyl (PCB)

Quality Assurance/Quality Control (QA/QC)

Sampling Authorization Form (SAF)

Sampling and Mobile Laboratory (SML)

Sampling and Analysis Plan (SAP)

Special Analytical Support (SAS)

State of Washington, Department of Ecology (Ecology)

Waste Encapsulation and Storage Facility (WESF)

TABLE 1. WESF ANALYSIS REQUIREMENTS

Analyte	Dangerous Waste Designation Threshold (mg/L)	Quantification limit	Analysis
1,1,1-trichloroethane	Detectable	< 5 μ g/L	VOA 8260B complete
PCB	2ppm	< 200 μ g/kg	LA-523-138

TABLE 2. QA/QC REQUIREMENTS

Parameter/ Analysis	Reference Method	Container/ Volume	VolReq	Preservation	Holding Time
VOA/TCA	EPA8260B	Glass/40ml	3x40ml VOA	Cool 4°C	14 days
PCB	EPA8081	Glass/125ml	1x125ml vials per sample	None	40 days

QC samples will include a matrix spike (MS), matrix spike duplicate (MSD), Laboratory Control Sample, and a Blank. Recovery for MS and MSD are 70-130%.