DISTRIBUTION SHEET

To Distribution	From W7FD60	Page 1 of 1
Project Title/Work Order WRAP 2A Advanced Conceptual Design Report Comments		Date 10/04/94
		EDT No. 602955
		ECN No.

Name	MSIN	Text With All Attach.	Text Only	Attach./ Appendix Only	EDT/ECN Only
D. G. Black	H6-30	X.			
T. L. Erickson	H5-33	X			
D. L. Hart	X0-22	X			
D. L. Lamberd	G6-46	X			
H. Spanheimer	G6-46	X			
T. L. Yount	G6-46	X			
SWOC/DMC	G6-51	X			
Central Files (2)	L8-04	X			
OSTI (2)	L8-07	X	(2 Copies)		

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Sta #10
OCT - 4 1994

23

ENGINEERING DATA TRANSMITTAL

Page 1 of 1

1. EDT 602955

2. To: (Receiving Organization) WRAP 2A 7FD40	3. From: (Originating Organization) WRAP Mechanical Engineering 7FD60	4. Related EDT No.: N/A
5. Proj./Prog./Dept./Div.: W-100	6. Cog. Engr.: D. L. Lamberd	7. Purchase Order No.: N/A
8. Originator Remarks: This is the final design review report for WRAP 2A Advanced Conceptual Design Report, including the 393 comments submitted.		9. Equip./Component No.: N/A
		10. System/Bldg./Facility: WRAP
11. Receiver Remarks:		12. Major Assm. Dwg. No.: N/A
		13. Permit/Permit Application No.: N/A
		14. Required Response Date: N/A

15. DATA TRANSMITTED					(F)	(G)	(H)	(I)
(A) Item No.	(B) Document/Drawing No.	(C) Sheet No.	(D) Rev. No.	(E) Title or Description of Data Transmitted	Impact Level	Reason for Trans- mittal	Origi- nator Dispo- sition	Receiv- er Dispo- sition
1	WHC-SD-W100-ACDR-001		0	WRAP 2A Advanced Conceptual Design Report Comments	ESQ	2	1	

16. KEY			
Impact Level (F)	Reason for Transmittal (G)		Disposition (H) & (I)
1. 2, 3, or 4 (see MRP 5.43)	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

(G)	(H)	17. SIGNATURE/DISTRIBUTION (See Impact Level for required signatures)								(G)	(H)
Reason	Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN	(J) Name	(K) Signature	(L) Date	(M) MSIN	Reason	Disp.
1	1	Cog. Eng. DL Lamberd	<i>D. L. Lamberd</i>	6/14/94	G6-46	WRAP DMC			G6-51	3	
1	1	Cog. Mgr. TL Yount	<i>T. Yount</i>	6/14/94	G6-46	Central Files			L8-04	3	
1	1	QA H. Spanheimer	<i>H. Spanheimer</i>	6/14/94	G6-46	FRA			A256	3	
1	1	Safety DE HART	<i>DE HART</i>	6/14/94	H6-32						
1	1	Env. JB Robertson	<i>JB Robertson</i>	6/14/94	H6-30						
1	1	TL Erickson	<i>TL Erickson</i>	6/14/94	H5-33						

18. D. L. Lamberd <i>Daryl Lamberd</i> 6/14/94 Signature of EDT Originator	19. T. Yount <i>T. Yount</i> 6/14/94 Authorized Representative for Receiving Organization	20. D. E. Bar <i>D. E. Bar</i> 6/14/94 Cognizant/Project Engineer's Manager	21. DOE APPROVAL (if required) Ltr. No. ☐ Approved ☐ Approved w/comments ☐ Disapproved w/comments
--	---	---	--

-7400-172-2 (07/91) GEF097

INSTRUCTIONS FOR COMPLETION OF THE ENGINEERING DATA TRANSMITTAL

(USE BLACK INK OR TYPE)

BLOCK	TITLE	
(1)*	EDT	<ul style="list-style-type: none"> ● Pre-assigned EDT number.
(2)	To: (Receiving Organization)	<ul style="list-style-type: none"> ● Enter the individual's name, title of the organization, or entity (e.g., Distribution) that the EDT is being transmitted to.
(3)	From: (Originating Organization)	<ul style="list-style-type: none"> ● Enter the title of the organization originating and transmitting the EDT.
(4)	Related EDT No.	<ul style="list-style-type: none"> ● Enter EDT numbers which relate to the data being transmitted.
(5)*	Proj./Prog./Dept./Div.	<ul style="list-style-type: none"> ● Enter the Project/Program/Department/Division title or Project/Program acronym or Project Number, Work Order Number or Organization Code.
(6)*	Cognizant Engineer	<ul style="list-style-type: none"> ● Enter the name of the individual identified as being responsible for coordinating disposition of the EDT.
(7)	Purchase Order No.	<ul style="list-style-type: none"> ● Enter related Purchase Order (P.O.) Number, if available.
(8)*	Originator Remarks	<ul style="list-style-type: none"> ● Enter special or additional comments concerning transmittal, or "Key" retrieval words may be entered.
(9)	Equipment/Component No.	<ul style="list-style-type: none"> ● Enter equipment/component number of affected item, if appropriate.
(10)	System/Bldg./Facility	<ul style="list-style-type: none"> ● Enter appropriate system, building or facility number, if appropriate.
(11)	Receiver Remarks	<ul style="list-style-type: none"> ● Enter special or additional comments concerning transmittal.
(12)	Major Assm. Dwg. No.	<ul style="list-style-type: none"> ● Enter applicable drawing number of major assembly, if appropriate.
(13)	Permit/Permit Application No.	<ul style="list-style-type: none"> ● Enter applicable permit or permit application number, if appropriate.
(14)	Required Response Date	<ul style="list-style-type: none"> ● Enter the date a response is required from individuals identified in Block 17 (Signature/Distribution).
(15)*	Data Transmitted	
	(A)* Item Number	<ul style="list-style-type: none"> ● Enter sequential number, beginning with 1, of the information listed on EDT.
	(B)* Document/Drawing No.	<ul style="list-style-type: none"> ● Enter the unique identification number assigned to the document or drawing being transmitted.
	(C)* Sheet No.	<ul style="list-style-type: none"> ● Enter the sheet number of the information being transmitted. If no sheet number, leave blank.
	(D)* Rev. No.	<ul style="list-style-type: none"> ● Enter the revision number of the information being transmitted. If no revision number, leave blank.
	(E) Title or Description of Data Transmitted	<ul style="list-style-type: none"> ● Enter the title of the document or drawing or a brief description of the subject if no title is identified.
	(F)* Impact Level	<ul style="list-style-type: none"> ● Enter the appropriate Impact Level (Block 15). Also, indicate the appropriate approvals for each item listed, i.e., SQ, ESQ, etc. Use NA for non-engineering documents.
	(G) Reason for Transmittal	<ul style="list-style-type: none"> ● Enter the appropriate code to identify the purpose of the data transmittal (see Block 16).
	(H) Originator Disposition	<ul style="list-style-type: none"> ● Enter the appropriate disposition code (see Block 16).
	(I) Receiver Disposition	<ul style="list-style-type: none"> ● Enter the appropriate disposition code (see Block 16).
(16)	Key	<ul style="list-style-type: none"> ● Number codes used in completion of Blocks 15 (G), (H), and (I), and 17 (G), (H) (Signature/Distribution).
(17)	Signature/Distribution	
	(G) Reason	<ul style="list-style-type: none"> ● Enter the code of the reason for transmittal (Block 16).
	(H) Disposition	<ul style="list-style-type: none"> ● Enter the code for the disposition (Block 16).
	(J) Name	<ul style="list-style-type: none"> ● Enter the signature of the individual completing the Disposition 17 (H) and the Transmittal.
	(K)* Signature	<ul style="list-style-type: none"> ● Obtain appropriate signature(s).
	(L)* Date	<ul style="list-style-type: none"> ● Enter date signature is obtained.
	(M)* MSIN	<ul style="list-style-type: none"> ● Enter MSIN. Note: If Distribution Sheet is used, show entire distribution (including that indicated on Page 1 of the EDT) on the Distribution Sheet.
(18)	Signature of EDT Originator	<ul style="list-style-type: none"> ● Enter the signature and date of the individual originating the EDT (entered prior to transmittal to Receiving Organization). If the EDT originator is the cognizant engineer, sign both Blocks 17 and 18.
(19)	Authorized Representative for Receiving Organization	<ul style="list-style-type: none"> ● Enter the signature and date of the individual identified by the Receiving Organization as authorized to approve disposition of the EDT and acceptance of the data transmitted, as applicable.
(20)*	Cognizant Manager	<ul style="list-style-type: none"> ● Enter the signature and date of the cognizant manager. (This signature is authorization for release.)
(21)*	DOE Approval	<ul style="list-style-type: none"> ● Enter DOE approval (if required) by letter number and indicate DOE action.

* Asterisk denote the required minimum items check by Configuration Documentation prior to release; these are the minimum release requirements.

RELEASE AUTHORIZATION

Document Number: WHC-SD-W100-ACDR-001, Rev. 0

Document Title: Wrap 2A Advanced Conceptual Design Report Comments

Release Date: 10/4/94

* * * * *

This document was reviewed following the
procedures described in WHC-CM-3-4 and is:

APPROVED FOR PUBLIC RELEASE

* * * * *

WHC Information Release Administration Specialist:

C. WILLINGHAM

(Signature)

10/4/94

(Date)

SUPPORTING DOCUMENT

1. Total Pages **422**

2. Title

WRAP 2A ADVANCED CONCEPTUAL DESIGN REPORT COMMENTS

3. Number

WHC-SD-W100-ACDR-001

4. Rev No.

0

5. Key Words

WRAP 2A, advanced conceptual design, review, comments

6. Author

Name: D. L. Lamberd

Darryl L. Lamberd 6/14/94
Signature

Organization/Charge Code 7FD60/E31927

7. Abstract

This report contains the compilation of the 393 comments that were submitted during the review of the Advanced Conceptual Design Report for the Waste Receiving and Processing Facility Module 2A. The report was prepared by Raytheon Engineers & Constructors, Inc. of Englewood, Colorado for the United States Department of Energy. The review was performed by a variety of organizations identified in the report. The comments were addressed first by the Westinghouse cognizant engineers and then by the Raytheon cognizant engineers, and incorporated into the final issue of the Advanced Conceptual Design Report.

**APPROVED FOR
PUBLIC RELEASE** *cu 10-4-94*

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10.

RELEASE STAMP

9. Impact Level ESQ

MASTER

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WHC REVIEW AND APPROVAL AUTHORITY

The Advanced Conceptual Design Report (ACDR) is a further refinement of the facility design as established during development of process flow diagrams (PFD) based on the Functional Design Criteria (FDC) and the Supplemental Design Requirements Document (SDRD) beyond the conceptual design completed in 1992. It provides a basis and is preparatory to the start of Title 1 design. As the design evolves during Title 1 design, changes and improvements will be made to address all the uncertainties and unresolved review comments.

An Integrated Management Team approach has been implemented for this project as directed by the Department of Energy-Richland Operations Office and described in the proposed project plan for Project W-100. The Westinghouse Hanford Company (WHC) design review process and the Engineering Data Transmittal approval signifies that the design meets the criteria and operability requirements which will result in a facility acceptable to WHC for operations. Raytheon Engineers and Constructors, Inc. (Raytheon) will retain ultimate responsibility for the design to meet all applicable criteria and codes. Public issuance of the ACDR will be the responsibility of Raytheon. This supporting document records WHC acceptance of the design report and documents the dispositioned WHC comments submitted to Raytheon. All of the CDR review comments, ACDR review comments, and CDR/ACDR uncertainties that were identified to be resolved during later design stages (Category 4 comments), will be tracked, addressed, and resolved during Title 1 design.

Appendix A to this document is a copy of the letter formally transmitting the final ACDR to WHC. Appendix B identifies the organizations and individuals who reviewed the submitted report and provided comments. Appendix C is a matrix summarizing the 393 comments submitted, and final disposition. Appendix D is the entire 393 completed copies of all ACDR comments submitted, final dispositions agreed to, and concurrence of the dispositioned comments with the reviewers.

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APPENDIX A: Letter, Raytheon to Westinghouse

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United Engineers
& Constructors Inc.
Western Operations

WHC-SD-W100-ACDR-001 REV 0
Street Address
5555 Greenwood Plaza Blvd.
Englewood, CO 80111

Mailing Address
P O Box 5888
Denver CO 80217

303 843 2000
Telex 170469
FAX 303 843 2208

9400749

**United Engineers
& Constructors**
A Raytheon Company

March 1, 1994

Westinghouse Hanford Company
P. O. Box 1970
Richland, Washington 99352

RE: UWL0019.010

Attention: D.W. Van Wormer
MS G1-62

Reference: Waste Receiving and Processing (WRAP Facility Modules)
Subcontract No. TVW-SVV-364152

Subject: WRAP 2A Advanced Conceptual Design Report (ACDR) -
Final Submittal

Dear Mr. Van Wormer:

UE&C is pleased to submit for WHC approval the final (100%) Advanced Conceptual Design Report for the WRAP 2A facility in accordance with the statement of work for off-site architect-engineer services, Revision 4D, Task ID. All WHC review comments on the draft (90%) ACDR have been dispositioned based upon technical concurrence between WHC/UE&C cognizant engineers and incorporated as appropriate into the ACDR.

The documents transmitted by this submittal include added and/or revised sections (in their entirety) of the Report, as listed below, for insertion into the four (Volume I, IIIA, IIIB, V) binders previously sent to you.

Table of Contents and Acronym List - Insert into all volumes.

RECEIVED
WRAP DMC

Volume I	Section 1.0	Introduction
	Section 2.0	Project Summary
	Section 3.0	Engineering Assessment Summary
	Section 4.0	Operations Description
	Section 5.0	Process Description
	Section 6.0	Facilities Description
	Section 7.0	Requirements & Assessments
	Section 8.0	Identification & Analysis of Uncertainties
Volume IIIA	Appendix B	Process Equipment Data Sheets
	Appendix D.1	Preliminary Building Fire Hazard/Classification Assessment
	Appendix D.2	Preliminary Process Area NEC Classification Assessment (replace page 1 only)

MAR 02 1994

Volume IIIB Appendix E Value Engineering Assessment
1. Replace Table of Contents
2. Add Section 3.5 "Out of Drum vs. In-Drum Mixing"

Volume IV Advanced Conceptual Design Drawings

Please note that Volume II Project Cost Estimate, is not included and is being transmitted under separate cover.

This transmittal also includes the dispositioned WHC draft ACDR review comments (with the exception of the cost/schedule related comments which will be transmitted along with the Project Cost Estimate).

We appreciate the high level of cooperation exhibited by the Integrated Project Team members in reviewing the draft ACDR documents and supporting the comment disposition process in a timely manner.

Very truly yours,

K.J. Iverson
Project Manager

KJI/RB/cn

cc: D. Lucas, WHC (letter)

APPENDIX B: WRAP 2A ACDR Review Responsibilities Matrix

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WRAP 2A ACDR REVIEW RESPONSIBILITIES

	Project Engineering (Lucas)	Tech, Design & Systems Integration (CAP, TLY, DEB)	Restoration Projects (Kruger)	Health & Safety Assurance (Martin)	Environ- mental (Robertson)	KEH (CM)	QA (McGee)
TEC	Swita						
Design Estimate	Swita						
Construction Estimate						Pennala	
SOW Compliance	Swita						
FDC Compliance			Nester/Kruger				
SDRD Compliance		Lamerd	Nester/Kruger				
Independent Safety				Kolodziej			
Health Physics				Adams/Butler			
Industrial Health & Safety				Hart/Tredway /Pines			
Fire Protection				Bell/Evans /Anderson			
Criticality				Friar/Bhatia			
Safety Analysis			K. Dewitt				
Constructability						Pennala	
Env. Requirements			Westcott		R. J. Swan		
Operability			Nester/Kruger				
Maintainability			Myers				
Discipline Experts: HVAC I&C Process Mechanical Systems Integration Time and Motion		Stroup Open Pauly Horgos Lamerd Kooiker					
QA							McGee/ Spanheimer
Overall Schedule	Swita						
Design Schedule	Swita						
Construction Schedule						Pennala	

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APPENDIX C: WRAP 2A ACDR Comment Tracking Log

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WHC-SD-W100-ACDR-001 REV 0
WRAP 2A COMMENT TRACKING LOG

COMMENT #	ORIG. CAT.	REVIEWER	WHC COG	SUBJECT	ASSIGN CAT	FINAL CAT	STATUS ¹	TRACK Y/N ²
1	5	GRAHAM	LAMBERD	HANDLING AND STORAGE CONCERNS	4	4	CLOSED	Y
2	2	GRAHAM	HORGOS	STACKING OF NEW DRUMS	4	4	CLOSED	Y
3	4	GRAHAM	HORGOS	USE OF PHOTO CELLS, SENSORS ETC.	4	4	CLOSED	Y
4	5	GRAHAM	HORGOS	CONCERN OF PYROPHORIC METALS INTO SHREDDER	5	N/A	CLOSED	
5	5	GRAHAM	LECLAIR	SAMPLE HANDLING-WRONG FUME HOOD	5	2	CLOSED	
6	5	GRAHAM	LAMBERD	BUILDING CONSTRUCTION MATERIALS	5	5	CLOSED	
7	2	GRAHAM	HORGOS	PRESSURE REFERENCES STATED IN TABLE	3	3	CLOSED	
8	5	GRAHAM	PAULY	LOCATION & PLACEMENT OF DILUTE ACID		4/5	CLOSED	Y
9	5	GRAHAM	LAMBERD	TRANSPORT CORRIDOR (CONTROLS)	5	5	CLOSED	Y
10	5	GRAHAM	HORGOS	CONCERN OF STACKING OF NEW DRUMS	4	4	CLOSED	Y
11	5	GRAHAM	HORGOS	HAND & FOREARM PROTECTION	4	4	CLOSED	Y
12	5	GRAHAM	HORGOS	REGARDING 1300-8.4 WASTE SEGREGATION	4	4	CLOSED	Y
13	5	GRAHAM	HORGOS	PYROPHORIC METAL FIRE CONCERNS	4	4	CLOSED	Y
14	5	GRAHAM	HORGOS	LIQUID INCOMPATIBILITIES	4	N/A	CLOSED	
15	5	GRAHAM	WEINGARDT	DEFINE THE BASIS OF "LOT"	3	5	CLOSED	
16	5	GRAHAM	WEINGARDT	BULK POWDER STORAGE SYSTEM	4	4	CLOSED	Y
17	3	GRAHAM	PAULY	REPLACE "ELIMINATE" WITH "REDUCE"	3	3	CLOSED	
18	5	GRAHAM	HORGOS	ISSUE LOCATED IN SECTIONS F&3	5	N/A	CLOSED	
19	3	KOOIKER	LAMBERD	CLARITY OF NEW DRUMS/PRODUCT	3	3	CLOSED	
20	2	KOOIKER	LAMBERD	SPECIAL END EFFECTOR FOR TRUCK	2	N/A	CLOSED	
21	4	KOOIKER	PAULY	TRANSPORT OF DRUMS ON PALLETS	4	4	CLOSED	
22	2	KOOIKER	LAMBERD	WRAP2A COMPACTS EMPTY DRUMS	5	5	CLOSED	
23	2	NESTER	LAMBERD	PALLETIZED WASTE CONTAINERS	4	3	CLOSED	
24	4	NESTER	LAMBERD	FACILITY'S FOOTPRINT COORDINATES ARE NOT REFERENCED	4	4	CLOSED	
25	1	NESTER	LAMBERD	MEN'S & WOMEN'S RESTROOMS IN ZONE II	1	1	CLOSED	
26	5	NESTER	LAMBERD	TRANSFER CORRIDOR EXTENSION	5	2/5	CLOSED	
27	1	NESTER	HORGOS	LEAD CONSIDERED "LISTED WASTE"	3	3	CLOSED	
28	2	NESTER	LAMBERD	LOCK & TAGGED OF AIR DRYER	1/2	2	CLOSED	
29	3	NESTER	LAMBERD	TYPO IN FDC NUMBER	3	3	CLOSED	
30	3	NESTER	HORGOS	FDC SECTION 2.2.9 "WASTE DRUMS NOT BANDED"	3	3	CLOSED	
31	3	MYERS	HORGOS	CLARIFY OPERATION OF FORK TRUCK OPERATOR	3	3	CLOSED	
32	3	MYERS	HORGOS	WHAT DOES "CHAIN TRANSFERS" MEAN?	3	3	CLOSED	
33	4	MYERS	HORGOS	OPERATOR OBSERVES THE OPERATION IN THE BOX BREAKDOWN ROOM	3	3	CLOSED	
34	4	MYERS	HORGOS	FLOOR OF THE BOX BREAKDOWN NEEDS TO BE STRONG	4	4	CLOSED	Y
35	1	MYERS	HORGOS	BOX NEEDS TO BE REORIENTED	4	4	CLOSED	Y
36	3	MYERS	LAMBERD	TEMPORARY CONTAINMENT OF SHOWER	3	3	CLOSED	

¹Status Open: Reviewer does not accept disposition.
Closed: Reviewer accepts disposition.

²Track Yes: Will be reevaluated at next Design Review.
No: Comment is closed no further action required.

WHC-SD-W100-ACDR-001 REV 0
WRAP 2A COMMENT TRACKING LOG

COMMENT #	ORIG. CAT.	REVIEWER	WHC COG	SUBJECT	ASSIGN CAT	FINAL CAT	STATUS ¹	TRACK Y/N ²
37	5	KRUGER	LAMBERD	WASTE DRUMS WITH GROUT TO BE CONSIDERED	5	5	CLOSED	Y
38	5	KRUGER	PAULY	48HR CURING TIME IS ADEQUATE FOR GROUT	5	5	CLOSED	
39	4	KRUGER	HORGOS	MEANS FOR BLOCKED CHUTES	4	4	CLOSED	Y
40	3	KRUGER	HORGOS	WASTE DRUMS IN EXCESS OF 55 GALLONS	3	3	CLOSED	
41	1	KRUGER	LAMBERD	ADDRESS PROCESSING OF HEPA FILTERS	4	4/5	CLOSED	Y
42	4	KRUGER	HORGOS	PERSONNEL ENTRY INTO PROCESS ENCLOSURE	1	1	CLOSED	
43	2	KRUGER	HORGOS	OXYGEN CONTENT OF THE SHREDDER INCONSISTENT	4	3	CLOSED	
44	2	KRUGER	PAULY	OXYGEN CONTENT SHOULD BE KEPT LOW	2	3	CLOSED	
45	4	KRUGER	WEINGARDT	MEASURING WATER CONTENT OF INCOMING WASTE	4	4	CLOSED	Y
46	1	KRUGER	WEINGARDT	USING A GROUT COLLECTION CONTAINER	1	1	CLOSED	
47	4	KRUGER	HORGOS	TEMPERATURES IN ZONE 2 (ADMIN. AREA)	4	5	CLOSED	Y
48	1	KRUGER	HORGOS	OPERATION OF THE STANDBY SYSTEM	4	2	CLOSED	
49	1	KRUGER	LAMBERD	CENTRAL VACUUM SYSTEM FDC REQUIREMENT	4	4	CLOSED	Y
50	1	KRUGER	HORGOS	CONCERN FOR THE DISTANCE OF TRANSPORT	4	4	CLOSED	Y
51	4	MCDANIEL	LAMBERD	ASTM TYPES OF PORTLAND CEMENT & GROUT	4	4/5	CLOSED	Y
52	3	MCDANIEL	LAMBERD	DEFINITION OF VIBRO-GROUTING	3	3	CLOSED	
53	3	MCDANIEL	LAMBERD	PROCESS STUDIES, TESTING, ETC.	3	3	CLOSED	
54	5	MCDANIEL	PAULY	WASTE SETTLING IN THE PE WASTE FORM	3/5	3/5	CLOSED	
55	5	MCDANIEL	WEINGARDT	CaO TO OFFSET THE ACETIC ACID EFFECT	5	5	CLOSED	Y
56	4	MCDANIEL	WEINGARDT	PROCESS FLOW DIAGRAMS FOR GROUT & PE	4	2/4	CLOSED	Y
57	1	WESTCOTT	WEINGARDT	EPA REGULATION 40 CFR PART 265	5	5	CLOSED	
58	1	WESTCOTT	WEINGARDT	DRYER DESIGN SPECIFICATION	1	1/5	CLOSED	
59	1	WESTCOTT	LAMBERD	TCLP WASTE REQUIREMENTS MISLEADING	1	1	CLOSED	
60	1	WESTCOTT	PAULY	REACTIVE WASTE MUST BE DEACTIVATED	3	3	CLOSED	
61	4	WESTCOTT	PAULY	WASTE CAN BE TRIPLED RINSED AND DISPOSED	5	5	CLOSED	
62	4	WESTCOTT	PAULY	NEED FOR HAZARDOUS WASTE STORAGE AREAS	5	5	CLOSED	
63	4	WESTCOTT	LECLAIR	SAMPLE MAINTAINED UNDER LOCK & KEY	3	3	CLOSED	
64	1	SPANHEIMER	LAMBERD	SAFETY CLASS OF ANY SYSTEMS OR EQUIPMENT	1	1	CLOSED	
65	5	SPANHEIMER	LAMBERD	ACDR REFERENCES DO NOT AGREE WITH CORRESPONDING PARAGRAPH	2/5	3	CLOSED	
66	3	WEINGARDT	LAMBERD	CONFUSION WITH CAMPAIGNED WASTE	3	3	CLOSED	
67	3	WEINGARDT	LAMBERD	BLOCK FLOW DIAGRAM OVERALL FACILITY	3	3	CLOSED	
68	3	WEINGARDT	LAMBERD	CAPABILITY TO ROUTE MATERIAL FROM BREAKDOWN TO DEBRIS TREATMENT	3	3	CLOSED	
69	1	WEINGARDT	LAMBERD	WASTE NEEDS TO BE SIZE REDUCED TO 3MM	1	N/A	CLOSED	
70	3	WEINGARDT	LAMBERD	CONSIDER THE REWORDING OF SLURRY	3	3	CLOSED	
71	2	WEINGARDT	PAULY	IMMOBILIZATION STUDY AND THE VE SESSION	2	2	CLOSED	
72	3	WEINGARDT	LAMBERD	PE ENCAPSULATED WASTE TO BE CONSIDERED	3	3	CLOSED	
73	3	WEINGARDT	LAMBERD	FIRE ANALYSIS OF CERTAIN CHEMICALS	3	3	CLOSED	

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WRAP 2A COMMENT TRACKING LOG

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	1	WEINGARDT	LAMBERD	DEBRIS RULING OF PARTICULATE BELOW 60MM	4	4	CLOSED	Y
75	2	WEINGARDT	WEINGARDT	SCREEN AFTER THE CRUSHER IS VIBRATORY	2	2	CLOSED	
76	3	WEINGARDT	LAMBERD	CLARITY ON THE AGITATED GROUT LINE	3	3	CLOSED	
77	3	WEINGARDT	LAMBERD	CHEMICALS ADDED TO THE EXTRUDER	3	3	CLOSED	
78	4	WEINGARDT	HORGOS	INSUFFICIENT DETAIL ON HANDLING OF DRUMS	4	3	CLOSED	
79	1	WEINGARDT	HORGOS	PENETROMETER TESTING ON CURING CONTAINERS	4	4	CLOSED	Y
80	2	WEINGARDT	WEINGARDT	PARTICULATE MATERIAL BEING TRANSFERRED	2	2	CLOSED	
81	3	WEINGARDT	WEINGARDT	CLARIFY THAT ONLY WASTE GOING TO PE IS GOING TO THE DRYER	3	3	CLOSED	
82	4	WEINGARDT	WEINGARDT	HOW PE CONTAINERS WILL BE FILLED	4	4	CLOSED	
83	3	WEINGARDT	WEINGARDT	EXTRUDER RADIOACTIVITY CONFINEMENT	3	3	CLOSED	
84	2	WEINGARDT	WEINGARDT	VIBRATING TABLE/GRIPPING VERTICAL	2	2	CLOSED	
85	3	WEINGARDT	WEINGARDT	MATERIAL IS RECIRCULATED THROUGH A PUMP	3	3	CLOSED	
86	2	WEINGARDT	PAULY	TREATED WASTE WATER TANK BACK TO ACTIVE	2	2	CLOSED	
87	1	WEINGARDT	PAULY	HOW TO HANDLE GROUT WASHINGS	1	1	CLOSED	
88	1	WEINGARDT	WEINGARDT	LIQUID DRAINED FROM DRUM OPENING AREAS	1	4/5	CLOSED	
89	3	WEINGARDT	LAMBERD	CaO FOR THE DRYER AND A HEAT SOURCE	3	3	CLOSED	
90	1/5	WEINGARDT	LAMBERD	TREAT SOFT WASTE VIA VIBRO INFILL TECH.	1/4/5	1/4/5	CLOSED	Y
91	1/2/4	WEINGARDT	HORGOS	METHOD FOR EMPTYING DRUMS UNCERTAIN	2	4	CLOSED	Y
	1	WEINGARDT	WEINGARDT	PROCESS EQUIPMENT (A BUCKET ELEVATOR)	1/2	1	CLOSED	
93	1	WEINGARDT	WEINGARDT	PARTICULATE/SLUDGE GROUT BATCH MIXING TANK	1	1	CLOSED	
94	1	WEINGARDT	WEINGARDT	VIBRO-GROUT MAKE UP TANK CAPABILITY	1	1	CLOSED	
95	1	WEINGARDT	WEINGARDT	EMERGENCY DUMP CONTAINER FOR BATCH TANKS	2	2/4	CLOSED	
96	1	WEINGARDT	WEINGARDT	CAPABILITY TO ROUTE MIXTURE TO THE VIBRATORY STATION	2	2	CLOSED	
97	2/4	WEINGARDT	WEINGARDT	SIZING OF THE VIBRO-GROUT MAKEUP TANK	2	2	CLOSED	
98	2	WEINGARDT	WEINGARDT	SIZE OF DRYER APPEARS TO BE SMALL	2	4	CLOSED	
99	2	WEINGARDT	WEINGARDT	DEBRIS FILLING AND GROUT INFILLING	2	2	CLOSED	
100	1	WEINGARDT	PAULY	WASTEWATER COLLECTION	1	2/4	CLOSED	
101	2	WEINGARDT	WEINGARDT	RECOMMEND DRYING BEFORE CRUSHING	2	2	CLOSED	
102	3	BURBANK	PAULY	TREATMENT EQUIPMENT DESCRIPTION	3	3	CLOSED	
103	1	BURBANK	HORGOS	DESCRIPTION OF BOX MOVEMENT NOT DETAILED	4	4	CLOSED	Y
104	5	BURBANK	PAULY	DEFINITION OF "SPECIAL WASTE" IN CONFLICT	5	5	CLOSED	
105	2	HORGOS	HORGOS	DECONTAMINATION OF EMPTIED WASTE BOXES	2	1/5	CLOSED	Y
106	2	HORGOS	HORGOS	PLACEMENT OF LIDS ON EMPTY DRUMS	4	4	CLOSED	Y
107	1	HORGOS	WEINGARDT	POLYETHYLENE IMMOBILIZATION MEDIA	5/3	3/5	CLOSED	
108	1	HORGOS	WEINGARDT	WATER FLUSHING THE GROUT SYSTEM	1	1	CLOSED	
109	2	HORGOS	PAULY	SEALED OBJECTS CONTAINING LIQUID MERCURY	1/4/5	1/4/5	CLOSED	
	1	HORGOS	HORGOS	DESCRIPTION OF THE HVAC SYSTEM	1	3	CLOSED	

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WRAP 2A COMMENT TRACKING LOG

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111	1	HORGOS	HORGOS	STATEMENT ON HEPA FILTERS BEING INSTALLED	4	1/4	CLOSED	Y
112	1	HORGOS	HORGOS	ZONE I EXHAUST SYSTEM INCORPORATING CARBON ABSORBERS IN THE FILTER TRAIN	1	2	CLOSED	
113	1	HORGOS	HORGOS	OFF-GAS TANKS WILL BE PREFILTERED	1	2	CLOSED	
114	2	HORGOS	HORGOS	EXHAUST FAN CONTROLLED FROM AIRFLOW DEVICES	4	4	CLOSED	Y
115	1	HORGOS	HORGOS	ROOM PRESSURE CONTROL SYSTEM FOR ZONE II	4	4	CLOSED	Y
116	1	HORGOS	HORGOS	UTILIZING VARIABLE INLET VANES	4	4	CLOSED	Y
117	1	HORGOS	HORGOS	CONCERN ON THE WASTE FEED DRUMS	1	1	CLOSED	
118	1	HORGOS	LAMBERD	LARGE OR HEAVY ITEMS BEING LIFTED	1	1	CLOSED	
119	1	HORGOS	LAMBERD	DECONTAMINATION TANK AND MAINTENANCE	1	4	CLOSED	Y
120	1	HORGOS	LAMBERD	EQUIPMENT LOCATED IN THE ZONE I ROOM	1	1	CLOSED	
121	1	HORGOS	LAMBERD	FLANGE OF THE EQUIPMENT AND THE MATING	1	3	CLOSED	
122	1	HORGOS	LAMBERD	REMOVAL OF EQUIPMENT FROM IT'S INSTALLED LOCATION FOR RELOCATION	1	3	CLOSED	
123	4	HORGOS	LAMBERD	BOX BREAKDOWN AREA INSTALLED SHREDDER	1	1	CLOSED	
124	3	LAMBERD	LAMBERD	FACILITY SAFETY TO FACILITY HAZARDS	3	3	CLOSED	
125	3	LAMBERD	LAMBERD	DELETION OF THE NDE/NDA	3	3	CLOSED	
126	3	LAMBERD	LAMBERD	SINGLE IMMOBILIZATION STUDY JUSTIFY CHANGES	3	3	CLOSED	
127	3	LAMBERD	PAULY	CONTAINMENT BE CHANGED TO CONFINEMENT	3	3	CLOSED	
128	3	LAMBERD	LAMBERD	WORD JUDGEMENT CHANGED TO PRACTICES	3	3	CLOSED	
129	3	LAMBERD	LAMBERD	MINIMUM HANDLING IS TO AVOID EXPOSURE	3	3	CLOSED	
130	3	LAMBERD	LAMBERD	WORD CHANGE IN SECTION 4.3 ITEM C	3	3	CLOSED	
131	3	LAMBERD	LAMBERD	CLARIFY THE SHIELDED STAGING AREA	3	3	CLOSED	
132	3	LAMBERD	LAMBERD	OFF NORMAL WATER RECLARIFY	3	3	CLOSED	
133	1	LAMBERD	HORGOS	PROVIDE SPECIFIC WASTE STREAMS	1	1	CLOSED	
134	1	LAMBERD	LAMBERD	DRUMS ROUTED TO SAMPLE MANAGEMENT AREA	1/5	2/5	CLOSED	Y
135	1	LAMBERD	WEINGARDT	JUSTIFICATION FOR A SCREEN	1	1	CLOSED	
136	2	LAMBERD	LAMBERD	SPECIAL WASTE FROM OTHER WASTE PROCESSING	4	4	CLOSED	Y
137	2	LAMBERD	LAMBERD	COMPACTOR PLACED ON THE LOWER LEVEL	4	4	CLOSED	Y
138	2	LAMBERD	LAMBERD	LOCATION OF THE NEW CONTAINER STORAGE AREA	4	4	CLOSED	Y
139	1	LAMBERD	LAMBERD	WASTE WILL HAVE LESS THAN 10% VOID VOLUME	1	1	CLOSED	
140	1	LAMBERD	LAMBERD	STATEMENT ON STRUCTURAL CONSIDERATIONS	1	1	CLOSED	
141	1	LAMBERD	LAMBERD	CLARIFY WHAT THE 10-20 PSF LOADING IS	1	1	CLOSED	
142	1	LAMBERD	LAMBERD	DESIGN FEATURE TO SUPPORT EXHAUST STACK	4	4	CLOSED	Y
143	3	LAMBERD	LAMBERD	REFERENCE FOR DESIGN BASIS ACCIDENT	3	3	CLOSED	
144	3	LAMBERD	LAMBERD	DECONTAMINATION SOLUTION NEEDS CLARIFYING	3	3	CLOSED	
145	3	LAMBERD	LAMBERD	MINIMIZING POTENTIAL EXPOSURE TO PERSONNEL	3	3	CLOSED	
146	1	LAMBERD	LAMBERD	LOCALIZED CONFINEMENT	1	1	CLOSED	
147	1	LAMBERD	LAMBERD	SECONDARY CONTAINMENT FOR HAZARDOUS WASTE	1	1	CLOSED	

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WRAP 2A COMMENT TRACKING LOG

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	3	LAMBERD	LAMBERD	HANDS ON OPERATIONS	3	3	CLOSED	
149	1	LAMBERD	HORGOS	SECTION TO DESCRIBE THE OPERATIONS APPROACH	1	1	CLOSED	
150	1	LAMBERD	LAMBERD	OPERATIONAL APPROACH USED IN OTHER AREAS	1	1	CLOSED	
151	1	LAMBERD	HORGOS	SHREDDER IN THE BOX BREAKDOWN AREA	1	3	CLOSED	
152	2	LAMBERD	LAMBERD	NEED TO INERT THE SHREDDER	4/5	4/5	CLOSED	Y
153	2	LAMBERD	LAMBERD	SECTION 8.3 (ADD UNCERTAINTIES)	2	2/4/5	CLOSED	Y
154	2	LAMBERD	LAMBERD	SPECIFY WHAT WASTE TO BE TREATED IN WRAP2A	2	3	CLOSED	
155	2	LAMBERD	LAMBERD	FLOOR SPACE IN THE MAIN PROCESSING AREA	4	2/4	CLOSED	Y
156	2	LAMBERD	WEINGARDT	DRYER CYCLE COOLING/HEATING TIMEFRAME	2	4	CLOSED	Y
157	2	LAMBERD	WEINGARDT	OUTPUT SCREEN FROM CRUSHER	2	2	CLOSED	
158	1	LAMBERD	LAMBERD	CONTAINER ROUTED TO VIBRO GROUT STATION	1	1	CLOSED	
159	2	LAMBERD	LAMBERD	DRUMS SENT TO THE SAMPLE MANAGEMENT AREA BEFORE SENT TO W112	1/5	1/5	CLOSED	Y
160	2	LAMBERD	LAMBERD	COMBINE LIFTS FOR PARTICULATE AND DEBRIS INTO A SINGLE LIFT	4	4	CLOSED	Y
161	2	LAMBERD	LAMBERD	ELIMINATE ONE AIRLOCK AND SHOWER	2	2	CLOSED	
162	1	LAMBERD	LAMBERD	LIQUID TRANSFERRED FROM PROCESS AREA	1	N/A	CLOSED	
163	2	LAMBERD	LAMBERD	PLANT LAYOUT TO ELIMINATE DRUM LIFTS	4	2	CLOSED	
164	2	LEE	SWITA	CLEAR DEFINITION OF CONTRACTING METHODS	2	2	CLOSED	
165	3	LEE	SWITA	REVISE TABLE 5.3 TO TABLE 5-5	3	3	CLOSED	
	3	LEE	PAULY	SPECIAL EQUIPMENT CLARIFICATION	3	3	CLOSED	
167	2	LEE	SWITA	ANTICIPATED CONTRACTING METHODS	2	2	CLOSED	
168	5	LEE	SWITA	COMPLEXITY OF SPECIALTY EQUIPMENT	5	5	CLOSED	
169	3	NASH	WEINGARDT	CLARIFY 2ND SENTENCE PARA 5.7.3.7	3	3	CLOSED	
170	2	NASH	LAMBERD	DESIGN OF ROOF ELEVATIONS	4	4	CLOSED	Y
171	3	NASH	LAMBERD	FOUNDATION SUPPORTS FOR STACK	3	4	CLOSED	Y
172	2	NASH	LAMBERD	COMPUTER ROOM'S CABLE ACCESS AREA	2	2	CLOSED	
173	2	NASH	LAMBERD	CONTROL AREA NOT ON DRAWING	2	3	CLOSED	
174	2	NASH	LAMBERD	CONCERN OF COST FOR TRANSFER CORRIDOR	5	5	CLOSED	Y
175	2	NASH	LAMBERD	LIQUID WASTE TANKS' DEPRESSED FLOORS	1	N/A	CLOSED	
176	2	NASH	LAMBERD	SWP DESIGN IS TOO COSTLY	3	N/A	CLOSED	
177	2	NASH	LAMBERD	PERSONNEL ELEVATOR NOT NECESSARY	2	2/5	CLOSED	Y
178	2	NASH	LAMBERD	NEW DRUMS STORED INSIDE PROCESS BLDG	2	4	CLOSED	Y
179	2	NASH	LAMBERD	STRUCTURAL SUPPORT	1	1	CLOSED	
180	2	NASH	LAMBERD	40FT TRANSFER CORRIDOR TOO COSTLY	5	5	CLOSED	Y
181	2	NASH	LAMBERD	SAMPLE MANAGEMENT SPACE	4	4	CLOSED	Y
182	2	NASH	LAMBERD	BAY ALONG THE WEST SIDE NOT NEEDED	4	4	CLOSED	Y
183	1	NASH	LAMBERD	LAVATORY SPACE NOT ALLOWED BY 6430.1A	1	1	CLOSED	
	2	NASH	LAMBERD	CONTROL ROOM CABLE ACCESS SPACE	2	2	CLOSED	

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185	2	NESTER	LAMBERD	ACCESS TO INDIVIDUAL PRODUCT CONTAINERS	2	4	CLOSED	Y
186	5	PAULY	LAMBERD	INCOMING BOXED WASTE RECEIVED VIA W112 TRANSFER CORRIDOR	5	5	CLOSED	Y
187	2	PAULY	LAMBERD	REPACKED IN NEW PRODUCT CONTAINERS	2	3	CLOSED	
188	2	PAULY	LAMBERD	WASTEFORMS THAT NEED PRETREATMENT	2	3	CLOSED	
189	2	PAULY	HORGOS	2ND ZONE 1 EXHAUST SYSTEM FOR ENCLOSURES	4	4	CLOSED	Y
190	2	PAULY	LAMBERD	CRANE NOT IDENTIFIED ON THE PFD	2	4	CLOSED	Y
191	2	PAULY	LAMBERD	NON-SHREDDABLE ITEMS LOADING CHUTE	4	4	CLOSED	Y
192	2	PAULY	WEINGARDT	HEAT GENERATING FROM THE SHREDDING	3	3	CLOSED	
193	2	PAULY	WEINGARDT	LEVEL DETECTOR FOR MONITORING DEBRIS	4	2	CLOSED	
194	2	PAULY	WEINGARDT	CHANGE "LISTED HEAVY METALS" TO TOXIC HEAVY METALS	3	3	CLOSED	
195	2	PAULY	LAMBERD	ION EXCHANGE RESINS BEING "DEWATERED"	2	2	CLOSED	
196	2	PAULY	WEINGARDT	ION EXCHANGE RESINS BEING "LOADED"	3	3	CLOSED	
197	2	PAULY	WEINGARDT	PE/WASTE BEING MONITORED VISUALLY	3	3	CLOSED	
198	2	PAULY	WEINGARDT	SAMPLING OF EXTRUDER OFFGAS CONDENSATE	2	2	CLOSED	
199	2	PAULY	WEINGARDT	METHOD FOR VENTING CONTAINER WHILE LOADING	2	2	CLOSED	
200	2	PAULY	PAULY	ONE GALLON CONTAINERS FOR MERCURY AMALGAMATION	2	2	CLOSED	
201	1	PAULY	HORGOS	ZONE 1 EXHAUST FANS CONTROLLED BY AIRFLOW	1	2	CLOSED	
202	1	PAULY	HORGOS	ZONE 2 PRESSURE CONTROLLED BY BALANCING SUPPLY AND EXHAUST AIR FLOW RATES	4	4	CLOSED	Y
203	1	PAULY	HORGOS	CARBON BED ABSORBERS WILL HAVE TEST CANISTERS	4	4	CLOSED	Y
204	1	PAULY	HORGOS	AMPLIFICATION OF THE FDC REQUIREMENT	5	3/5	CLOSED	Y
205	1	PAULY	HORGOS	MERCURY CONTENT OF WASTE	5	3/5	CLOSED	Y
206	5	PAULY	PAULY	WASTE TREATED IN ACCORDANCE WITH RCRA	5	5	CLOSED	
207	1	PAULY	PAULY	ION EXCHANGE EFFECTIVE FOR MERCURY	3	3	CLOSED	
208	1	PAULY	PAULY	NON APPLICABLE FDC REQUIREMENT	3	3	CLOSED	
209	1	PAULY	PAULY	REITERATE THE CORRECT FDC CRITERIA	1	2	CLOSED	
210	5	PAULY	PAULY	SECONDARY LIQUID WASTE TANK SIZES	5	5	CLOSED	
211	1	PAULY	LAMBERD	IDENTIFYING DIRECT REPACKING EQUIPMENT	1	3	CLOSED	
212	1	PAULY	LAMBERD	UNCERTAINTY #1 UNDER EMPTY DRUM COMPACTION SHOULD BE DELETED	1/5	1	CLOSED	
213	1	PAULY	LAMBERD	UNCERTAINTY #2 UNDER EMPTY DRUM COMPACTION SHOULD BE DELETED	1	1	CLOSED	
214	1	PAULY	LAMBERD	POLYETHYLENE ENCAPSULATION - DELETE	1	1	CLOSED	
215	1	PAULY	LAMBERD	UE&C/BNFL UNCERTAINTY, NOT WESTINGHOUSE	1	3	CLOSED	
216	2	PAULY	LAMBERD	CURRENT TEXT PAGES NUMBERING SYSTEM	3	3	CLOSED	
217	2	PAULY	LAMBERD	UNCERTAINTIES NOT NUMBERED IN ORDER	3	3	CLOSED	
218	2	PAULY	WEINGARDT	SLUDGE/PARTICULATE GROUT SYSTEM CONTAINER	2	2	CLOSED	

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	1	PAULY	LAMBERD	DETERMINE WHETHER THREE FLOORS NECESSARY	4	4	CLOSED	Y
220	1	PAULY	LAMBERD	BUCKET CONVEYOR FOR TRANSPORTING WASTE	1	N/A	CLOSED	
221	1	PAULY	LAMBERD	LIQUID WASTE TANK LOCATION	1	N/A	CLOSED	
222	1	PAULY	WEINGARDT	PARKING STAND LOCATION	1	1	CLOSED	
223	1	PAULY	PAULY	DECANT WESSEL FOR MERCURY DRAINAGE	1	1	CLOSED	
224	4	PAULY	PAULY	COOLANT FOR MERCURY AMALGAMATION CONTAINER	4	4	CLOSED	Y
225	2	PAULY	PAULY	DATA SHEETS NOT CONSISTENT	2	2	CLOSED	
226	1	PAULY	PAULY	DATA SHEET FOR SPECIAL WASTE MERCURY	1	1	CLOSED	
227	2	PAULY	PAULY	DATA SHEET FOR BOX BREAKDOWN SHREDDER	2	2	CLOSED	
228	2	PAULY	LAMBERD	EQUIPMENT NOT ALL TAGGED	2	3	CLOSED	
229	2	PAULY	PAULY	PFA AND BFS SILO SIZES ARE DIFFERENT	2	2	CLOSED	
230	2	PAULY	LAMBERD	3 DRUM LIFTS GOING TO THE SAME ENCLOSURE	2	N/A	CLOSED	
231	2	STROUP	HORGOS	STACK NOT BE SEISMICALLY DESIGNED		2	CLOSED	
232	1	STROUP	HORGOS	SAFE SHUTDOWN OF THE HVAC		1	CLOSED	
233	2	STROUP	HORGOS	FACILITY HUMIDIFICATION	4	4	CLOSED	Y
234	2	STROUP	HORGOS	DUCTING NON-CONFINEMENT SYSTEM		5	CLOSED	
235	1	STROUP	HORGOS	CONFINEMENT SYSTEM CRITERIA REQUIRES BACKFLOW PREVENTION		1/5	CLOSED	Y
236	1	STROUP	HORGOS	ZONE II SUPPLY SYSTEM MUST FAIL		1/5	CLOSED	
	2	STROUP	HORGOS	INTEGRITY OF THE SAFE SHUTDOWN	4	4	CLOSED	Y
238	2	STROUP	LAMBERD	NO HUMIDITY CONTROLS FOR WRAP 2A	2	4	CLOSED	Y
239	2	STROUP	HORGOS	ALLOW CARBON STEEL	4	4	CLOSED	Y
240	1	SWAN	HORGOS	HANFORD GROUT FEED STREAMS	5	5	CLOSED	
241	3	SWAN	LAMBERD	REFERRED TO AS W-112 AND W112	3	2	CLOSED	
242	3	SWAN	LAMBERD	DESCRIPTION OF PROCESS IS NOT CLEAR	3	3	CLOSED	
243	3	SWAN	LAMBERD	ACRONYMS OR ABBREVIATIONS LISTING	3	3	CLOSED	
244	2	SWAN	LAMBERD	POINT OF CONTACT (POC) CHECKLIST	3	5	CLOSED	
245	3	SWAN	LAMBERD	REVIEW CHANGES MADE TO ACDR DOCUMENT	3	5	CLOSED	
246	2	MYERS	LAMBERD	NO DIRECT ACCESS FROM COMPUTER ROOM	2	2	CLOSED	
247	1	SWAN	PAULY	TREATMENT FOR FEEDSTREAM 9C		3	CLOSED	
248	2	SWAN	LAMBERD	STATEMENT IN THE INTRO TO CODES, STANDARDS	2	2	CLOSED	
249	2	SWAN	LAMBERD	UTILIZATION OF DMF IN THE 200 EAST AREA	3	4/5	CLOSED	
250	2	SWAN	LAMBERD	CAN THE EMPTY DRUMS BE REUSED?	5	5	CLOSED	
251	2	SWAN	LAMBERD	WASTE CODES TO BE CONSIDERED	5/4	3/5	CLOSED	
252	2	SWAN	HINKLE	UBC BUILDING OCCUPANCY CLASSIFICATIONS	5	5	CLOSED	
253	3	LECLAIR	LECLAIR	VALUE ENGINEERING ASSESSMENT DATE	3	3	CLOSED	
254	3	LECLAIR	LECLAIR	USE OF ITALICS FOR CONSISTENCIES	3	3	CLOSED	
	1	LECLAIR	LECLAIR	SAMPLING SCHEDULE CONSISTENCIES	1	1	CLOSED	

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256	3	LECLAIR	LECLAIR	1000 GAL UNIT LOAD SIZE IN EXCESS	3	3	CLOSED	
257	3	LECLAIR	LECLAIR	UNIT LOAD SIZE OF #1 LITER IS SUFFICIENT	3	3	CLOSED	
258	3	LECLAIR	LECLAIR	MACROENCAPSULATION REFER TO VIBRO-GROUTED	3	3	CLOSED	
259	3	LECLAIR	LECLAIR	SAMPLE ASSOCIATED WITH DWG H-2-140628	3	3	CLOSED	
260	3	LECLAIR	HORGOS	CORRECTION OF SAMPLE W2A-S03		3	CLOSED	
261	3	LECLAIR	HORGOS	SAMPLES FROM BOX BREAKDOWN ARE ROUTE TO THE SAMPLE MANAGEMENT AREA		3	CLOSED	
262	3	LECLAIR	LECLAIR	DRAWING H-2-140727 IN CONCERN	3	3	CLOSED	
263	3	LECLAIR	LECLAIR	ACTIVE WASTE SAMPLES FROM SPECIAL WASTE AREA SHOWN ON DRAWINGS H-2-140649, 650, 651	3	3	CLOSED	
264	3	LECLAIR	LECLAIR	SAMPLE ON CONDENSATE PUMP (C-05-522)		3	CLOSED	
265	3	LECLAIR	LECLAIR	INACTIVE AND ACTIVE SAMPLES FROM THE LIQUID WASTE AREA	3	3	CLOSED	
266	3	LECLAIR	LECLAIR	FREQUENCY FOR PRODUCT SAMPLES	3	3	CLOSED	
267	3	LECLAIR	LECLAIR	DELETE SAMPLE W2A-S03	3	3	CLOSED	
268	3	LECLAIR	LECLAIR	TURN-ROUND TIME FOR W2A-S20 & W2A-S21	3	3	CLOSED	
269	3	LECLAIR	LECLAIR	SAMPLING NUMBER SEQUENCE	3	3	CLOSED	
270	3	LECLAIR	LECLAIR	H-2-140649 DOESN'T REFER TO SAMPLE NUMBERS	3	3	CLOSED	
271	3	LECLAIR	LECLAIR	SAMPLE REQUIREMENT MATRIX, INCORRECT ITEM	3	3	CLOSED	
272	3	LECLAIR	LECLAIR	TERM "SLUDGE/PARTICULATE PRODUCT"	3	3	CLOSED	
273	3	LECLAIR	LECLAIR	FREQUENCY FOR SAMPLE W2A-S33	3	3	CLOSED	
274	3	LECLAIR	LECLAIR	BULK SPECIFIC GRAVITY AS DETERMINANT	3	3	CLOSED	
275	3	LECLAIR	LECLAIR	INCONSISTENCY EXISTS BETWEEN TWO DRAWING	3	3	CLOSED	
276	3	LECLAIR	LECLAIR	SOLIDS CONTENT AS AN ADDITIONAL ANALYTICAL CAPABILITY OF THE SMA	3	3	CLOSED	
277	1	PAULY	LAMBERD	REMOVAL OF USED SWP LAUNDRY	1	3	CLOSED	
278	2	PAULY	HINKLE	CONSIDER PRE-ACTION SPRINKLER	2	2	CLOSED	
279	4	PAULY	LAMBERD	USING HIGHER R VALUE CONSTRUCTION	4	4	CLOSED	Y
280	1	PAULY	PAULY	FLAMMABLE VAPORS UPSTREAM OF HEATERS		4	CLOSED	Y
281	1	PAULY	PAULY	HEPA FILTERS SUSCEPTIBLE TO PLUGAGE		4	CLOSED	Y
282	1	PAULY	HORGOS	HVAC SYSTEM BAG FILTER	4	4	CLOSED	Y
283	1	PAULY		MERCURY CONDENSE IN DUCTING		2	CLOSED	
284	2	PENNALA	SWITA	DURATION FOR ACTIVITY IS EXCESSIVE	2	2	CLOSED	
285	2	PENNALA	SWITA	SCHEDULE INCLUDE ACTIVITIES FOR ADMIN AND TECHNICAL SUBMITTALS	2	2	CLOSED	
286	2	PENNALA	SWITA	BID & AWARD SUBCONTRACT NOT DEFINED	2	2	CLOSED	
287	2	PENNALA	SWITA	ITEM 1125CF001 UNCLEAR	2	2	CLOSED	
288	2	PENNALA	SWITA	CLARIFY TO "PROCURE EQUIPMENT"	2	2	CLOSED	
289	2	PENNALA	SWITA	ITEM 1129PS0001 "PROCURE COMPUTER SYSTEM"	2	2	CLOSED	
290	2	PENNALA	SWITA	ITEM 11255CF0099 "CHECKOUT AND COMMISSION	2	2	CLOSED	

¹Status Open: Reviewer does not accept disposition.
Closed: Reviewer accepts disposition.

²Track Yes: Will be reevaluated at next Design Review.
No: Comment is closed no further action required.

WHC-SD-W100-ACDR-001 REV 0
WRAP 2A COMMENT TRACKING LOG

COMMENT #	ORIG. CAT.	REVIEWER	WHC COG	SUBJECT	ASSIGN CAT	FINAL CAT	STATUS ¹	TRACK Y/N ²
	2	PENNALA	SWITA	TIMEFRAME FOR CONSTRUCTION OF MODULE 2A	2	2	CLOSED	
292	2	LEE	SWITA	ITEM 1123CA0010 "BID & AWARD SUBCONTRACT	2	2	CLOSED	
293	2	LEE	SWITA	1127XXX DO NOT DISTINGUISH BETWEEN TYPES OF PROCUREMENT	2	2	CLOSED	
294	1	CHADWICK	SWITA	UE&C RESPONSIBLE CONTRACTOR FOR PRODUCTION	1	1	CLOSED	
295	1	CHADWICK	SWITA	CONSTRUCTION MANAGEMENT INCLUDES WAREHOUSING -- NOT CORRECT	5/2	5/4	CLOSED	Y
296	1	CHADWICK	SWITA	TITLE IN & II ARE ESCALATED AT SAME RATE	2	2	CLOSED	
297	1	CHADWICK	SWITA	PROJECT COSTS BY DOE CODE OF ACCOUNTS	1	1	CLOSED	
298	1	CHADWICK	SWITA	PROJECT COSTS NOT SHOWN WITH CONTINGENCY	5	5	CLOSED	
299	1	CHADWICK	SWITA	KEH G&A RATE IS NOT A FLAT 3%	1	1	CLOSED	
300	1	CHADWICK	SWITA	8.1% FOR PROJECT MANAGEMENT NOT CORRECT	4	5/4	CLOSED	Y
301	1	CHADWICK	SWITA	24% CONTINGENCY APPLIED TO TITLE I & II	2	4	CLOSED	Y
302	1	CHADWICK	SWITA	STABILIZATION AGREEMENT & ESCALATION STUDY	3	3	CLOSED	
303	3	CHADWICK	SWITA	VENDOR QUOTE INCLUDED WITH ESTIMATE	3	3	CLOSED	
304	1	CHADWICK	SWITA	1992 HANFORD ESCALATION STUDY	3	3	CLOSED	
305	1	CHADWICK	SWITA	ESCALATION AND CONTINGENCY APPLICATION	1	1	CLOSED	
306	1	CHADWICK	SWITA	APPENDIX C 16.1 TOTAL PROJECT ESTIMATE	2	2	CLOSED	
307	3	CHADWICK	SWITA	APPENDIX C 16.2 COSTS INCLUDED IN WHC OPERATING CONTRACTOR	3	3	CLOSED	
	3	CHADWICK	SWITA	APPENDIX C 16.9 COSTS SHOULD BE COVERED BY WHC	5/3	5/3	CLOSED	
309	3	CHADWICK	SWITA	APPENDIX C 16.14 FIBER CABLE COSTS FOR HLAN & COMMUNICATION	3	3	CLOSED	
310	3	CHADWICK	SWITA	APPENDIX C 17.0 ASSUMPTIONS & QUALIFICATION	3	3	CLOSED	
311	3	CHADWICK	SWITA	APPENDIX C 17.2 INDIRECT COST INCREASES	3	3	CLOSED	
312	1	CHADWICK	SWITA	APPENDIX C 17.6 KEH NOT AWARE OF ANY ESTIMATE FOR CONTRACT ADMIN	3	3	CLOSED	
313	1	CHADWICK	SWITA	APPENDIX C 17.25 ENVIRONMENTAL COST	1	1	CLOSED	
314	3	CHADWICK	SWITA	APPENDIX C ESTIMATE DETAIL	3/4	4	CLOSED	Y
315	3	CHADWICK	SWITA	APPENDIX C ESTIMATE DETAIL (continued)	3/4	4	CLOSED	Y
316	3	CHADWICK	SWITA	APPENDIX C MECH EQUIPMENT: SILO	3	3	CLOSED	
317	3	CHADWICK	LAMBERD	APPENDIX C MECH EQUIPMENT: SOLENOID VALVES	3/4	3/4	CLOSED	Y
318	3	CHADWICK	SWITA	APPENDIX C PORTABLE BREATHING AIR	3	3	CLOSED	
319	1	CHADWICK	SWITA	MECH EQUIP COMMISSIONING, STARTUP	5/4	4	CLOSED	Y
320	3	CHADWICK	SWITA	APPENDIX C HAVOC	3/4	4	CLOSED	Y
321	3	CHADWICK	SWITA	INSTALLATION FOR THE AIR CLEAN UP TRAINS	3/4	4	CLOSED	Y
322	3	CHADWICK	SWITA	APPENDIX C HVAC: ZONE I ENCLOSURES	3	4	CLOSED	Y
323	3	CHADWICK	SWITA	APPENDIX C HVAC: CHILLED WATER SYSTEM	3/4	4	CLOSED	Y
324	3	CHADWICK	SWITA	APPENDIX C HVAC: RATES FOR SST DUCT	3	4	CLOSED	Y
	1	CHADWICK	SWITA	APPENDIX C HVAC: DUCTWORK BALANCING	5	5	CLOSED	

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Closed: Reviewer accepts disposition.

²Track Yes: Will be reevaluated at next Design Review.
No: Comment is closed no further action required.

WHC-SD-W100-ACDR-001 REV 0
WRAP 2A COMMENT TRACKING LOG

COMMENT #	ORIG. CAT.	REVIEWER	WHC COG	SUBJECT	ASSIGN CAT	FINAL CAT	STATUS ¹	TRACK Y/N ²
326	1	CHADWICK	SWITA	HVAC EQUIPMENT COMMISSIONING, STARTUP	4	4	CLOSED	Y
327	3	CHADWICK	SWITA	APPENDIX C ELECTRICAL	3	3	CLOSED	Y
328	1	EVANS	HINKLE	FDC NEEDS TO BE DETERMINED	5	5	CLOSED OPEN	Y
329	1	EVANS	HINKLE	NFPA 231C	1	1	CLOSED	
330	1	EVANS	HINKLE	MPFL WRAP2A WASTE CONSTITUENTS	1	1	CLOSED	
331	1	EVANS	HINKLE	PROVIDE REDUNDANT PROTECTION	1	1	CLOSED	Y
332	1	EVANS	HINKLE	STORAGE OF FLAMMABLE OR COMBUSTIBLE LIQUIDS	5	5	CLOSED OPEN	Y
333	1	EVANS	HINKLE	ROOF AND WALL PANELS MAY HAVE COMBUSTIBLE INSULATION AS IN WRAP 1.	1	1	CLOSED	Y
334	1	EVANS	HINKLE	ASSUMPTION OF NO UBC CLASSIFICATION	5	5	CLOSED OPEN	Y
335	1	EVANS	HINKLE	ANALYSIS REQUIRED TO JUSTIFY CONSTRUCTION	5	5	CLOSED	Y
336	1	EVANS	HINKLE	DEVIATION FROM THE 0111-99.0.1 CRITERIA	1	1	CLOSED	Y
337	1	EVANS	HINKLE	ASSESS THE TRANSFER CORRIDOR	1	N/A	CLOSED	Y
338	1	EVANS	HINKLE	DBF BASED ON PROCESSED WASTE DRUMS AS THE PRIMARY FUEL IS NOT VALID	1	1	CLOSED	
339	1	EVANS	HINKLE	PLACEMENT OF SILOS ADJACENT TO BUILDING	4	4	CLOSED	Y
340	1	EVANS	HINKLE	DEFINITION OF A FIRE AREA IN DOE 5480.7A	4	4	CLOSED	Y
341	1	EVANS	HINKLE	FACILITY HAZARD CLASSIFICATION	1	1	CLOSED	Y
342	1	EVANS	HINKLE	BUILDING OCCUPANCY CLASSIFICATION	5	5	CLOSED OPEN	Y
343	1	EVANS	HINKLE	IDENTIFY ALL IGNITIVE AND REACTIVE MATERIAL	1	1/5	CLOSED	Y
344	1	EVANS	HINKLE	REQUIREMENTS ON IGNITIVE/REACTIVE WASTE	5	5	CLOSED OPEN	Y
345	1	EVANS	HINKLE	FUNCTION OF THE FIRE HAZARDS ANALYSIS	1	1	CLOSED	
346	1	EVANS	HINKLE	BUILDING CONSTRUCTION DOESN'T MEET DOE 6430.1A FIR RESISTANCE REQUIREMENTS	4	4	CLOSED	Y
347	1	EVANS	HINKLE	THE LOSS OF CONFINEMENT POSE THREAT	1	1	CLOSED	
348	1	EVANS	HINKLE	SECONDARY CONFINEMENT SYSTEM	4	4	CLOSED	Y
349	1	EVANS	HINKLE	FIRE RATED SEPARATIONS	4	4	CLOSED	Y
350	1	EVANS	HINKLE	FIRE SEPARATION BETWEEN THE TWO BUILDINGS	3	3	CLOSED	
351	1	EVANS	HINKLE	DESIGN OF THE CONFINEMENT SYSTEM	1	1	CLOSED	
352	1	EVANS	HINKLE	HAZARD CLASSIFICATION OF THE FACILITY	4	4	CLOSED	Y
353	1	EVANS	HINKLE	OFFICE/ADMIN AREA SPRINKLE SYSTEM	5	5	CLOSED	Y
354	1	EVANS	HINKLE	CONFINEMENT SYSTEM MAINTAINS "CONTAINMENT"	5	1/5	CLOSED	Y
355	1	EVANS	HINKLE	AIR CHANGES TO MAINTAIN DISPERSION	1	1	CLOSED	Y
356	1	EVANS	HINKLE	REACTIVE WASTE MATERIALS NOT EXCEED THE UFC EXEMPT LIMITS	5	5	CLOSED OPEN	Y
357	1	EVANS	HINKLE	POTENTIAL FOR UFC/UBC CODE	5	5	CLOSED OPEN	Y
358	1	EVANS	HINKLE	NONCOMBUSTIBLE, UNRATED BUILDING CONSTRUCTION.	4	4	CLOSED	Y
359	1	EVANS	HINKLE	ENTIRE BUILDING IS A SINGLE FIRE "ZONE"	1	1	CLOSED	
360	1	SWITA	SWITA	OTHER PROJECT COST (OPC) ESTIMATE	1	1	CLOSED	
361	2	SWITA	SWITA	PRE-CDR ESTIMATE TO PRELIMINARY ACDR	2	2	CLOSED	

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Closed: Reviewer accepts disposition.

²Track Yes: Will be reevaluated at next Design Review.
No: Comment is closed no further action required.

WHC-SD-W100-ACDR-001 REV 0
WRAP 2A COMMENT TRACKING LOG

COMMENT #	ORIG. CAT.	REVIEWER	WHC COG	SUBJECT	ASSIGN CAT	FINAL CAT	STATUS ¹	TRACK Y/N ²
362	2	SWITA	SWITA	COST ESTIMATE RECONCILIATION DETAIL	2	2	CLOSED	
363	2	SWITA	SWITA	TITLE III APPROACH AND ESTIMATE % IS CONSISTENT WITH CURRENT PHILOSOPHY	2	2	CLOSED	
364	1	SWITA	SWITA	CONSISTENCY WITH PROJECT FUNDING	5/2	5/2	CLOSED	
365	2	SWITA	SWITA	ESCALATION RATES BASES ON FY-1993/1994	3	3	CLOSED	
366	1	SWITA	SWITA	STATEMENT ON "NO CONTINGENCY WAS ADDED..."	1	1	CLOSED	
367	2	SWITA	SWITA	MINIMAL UNCERTAINTIES IS INCONSISTENT	2	2	CLOSED	
368	1	SWITA	SWITA	BUILDING SYSTEMS CONTINGENCY OF 15%	2	4	CLOSED	Y
369	2	SWITA	SWITA	WBS SHOWS \$43K FOR NDA	2	2	CLOSED	
370	2	SWITA	SWITA	TABLES 5-2, 5-4 SEEM INCONSISTENT	2	2/4	CLOSED	Y
371	1	SWITA	SWITA	CONTINGENCY FOR FIRE CODE AND SHIELDING	2	2	CLOSED	
372	1	SWITA	SWITA	P3 DETAIL LOGIC SCHEDULE - MORE INFO.	1	1	CLOSED	
373	2	SWITA	SWITA	REFERENCE TO UE&C DESIGN TO COST PROGRAM	2	2	CLOSED	
374	1	SWITA	SWITA	DESIGN/CONSTRUCTION SCHEDULE DATES	1	1	CLOSED	
375	2	SWITA	SWITA	INCORRECT REFERENCE TO FY1992 ESCALATION STUDY	3	3	CLOSED	
376	1	SWITA	SWITA	SECTION 15.0, 16.0, 17.0 NEED CLARIFIED	2	2	CLOSED	
377	2	SWITA	SWITA	DISCIPLINE CONTINGENCY DEVELOPMENT TABLE	2	2	CLOSED	
378	2	SWITA	SWITA	DISCIPLINE CONTINGENCY FOR ELECTRICAL IS VERY LOW (10%)	2	3	CLOSED	
	2	LECLAIR	LECLAIR	ASSAY WASTE FOR RADIOACTIVITY	2	2	CLOSED	
380	2	CARLSON	LAMBERD	CUTS AND ELEVATIONS NOT MATCH ON DRAWING H-2-140632	2	2	CLOSED	
381	2	CARLSON	LAMBERD	CUTS ON DRAWING H-2-140631 INCORRECTLY MARKED WITH THE EXCEPTION OF CUT A	2	2	CLOSED	
382	2	CARLSON	LAMBERD	CUT SECTION D IS INCORRECT ON DRAWING H-2-140632	2	2	CLOSED	
383	4	CARLSON	LAMBERD	NARROW ISLE STACKER NOT SHOWN AT ELEVATION 134'0" PER DRAWING H-2-140632	4	2	CLOSED	
384	2	CARLSON	LAMBERD	H-2-140632: ADDITIVE HOPPERS NOT SHOWN	2	2	CLOSED	
385	4	CARLSON	PAULY	H-2-140649, NOTE 24 UNCERTAIN	2	2	CLOSED	
386	4	CARLSON	LAMBERD	H-2-140716: MINOR ELEVATIONS MISSING	4	2	CLOSED	
387	4	CARLSON	LAMBERD	H-2-140717: MISSING ROOF ELEVATION	4	2	CLOSED	
388	2	CARLSON	NASH	PAVEMENT LIMIT SIZED TO ACCOMMODATE TRUCK TURNING MOVEMENTS	2	2	CLOSED	Y
389	4	CARLSON	LAMBERD	COST OF WRAP2A IF PROJECT W112 DOESN'T COME ON LINE	5	5	CLOSED	
390	4	CARLSON	LAMBERD	WHY IS WRAP2A NOT INTENDED FOR HANDICAPPED OCCUPANCY	5	5	CLOSED	
391	2	CARLSON	LAMBERD	FUTURE EXPANSION OF THE TRANSFER CORRIDOR	2	3	CLOSED	
392	2	CARLSON	SWITA	ACCOUNTING ERROR THROUGH THE TPC	2	2	CLOSED	
393	1	CARLSON	SWITA	LOGIC BETWEEN CWBS 1123, 1124 AND 1127B DOESN'T TIE TOGETHER	1	1	CLOSED	

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Closed: Reviewer accepts disposition.

²Track Yes: Will be reevaluated at next Design Review.
No: Comment is closed no further action required.

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APPENDIX D: Final Copies of All Dispositioned Comments

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WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 4.0 pg. 8, par.3
Drawing #:
Zone Location:

Reviewer Identification: GRAHAM
Rev Comment #: 1
Comment Category: 5
Sheet #:

COMMENT

No storage or handling concerns are defined regarding the drums located in the cure, cooling area. Arrangement must allow first in, first out regarding storage design layout.

JUSTIFICATION

Drawings indicate curing drums are spaced tightly together, and initial core temperature of the drums to be around 300 degrees (Polyethylene). Design may prevent drums from cooling at pre-determined rates. If process increases up to three shifts a day, what is the number of total drums present, regarding a two day run, and total BTU's generated? Will this heat affect the structure, heating/cooling HVAC system, air flow, heat stress, etc.

RECOMMENDATION

Insure first in, first out regarding the movement of the drums curing within the storage configuration. Spacing and adequate air circulation is necessary for cooling of drums. Exposure to excessive air temperature by personnel needs to be addressed.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: January 31, 1994
Reviewer Signature: _____

Assigned Category: 4
Comment Status: Closed
ESQ Review Number: 34120

UE&C will provide handling concerns in ACDR.

Final Disposition

A-E Lead Engineer: Chapin

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Section 5.2.5 states the first in, first out basis for the cure store ares. Adequate heat dissipation, impacts on HVAC, etc. will be addressed in Title design. No change to ACDR.

*Okay per telcon w/ Graham
4/26/94*

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 5.0, pg. 6, 5.2.3
Drawing #:
Zone Location:

Reviewer Identification: GRAHAM
Rev Comment #: 2
Comment Category: 5
Sheet #:

COMMENT

Stacking of new drums, 4 high is indicated. How are these containers received? Do the drums arrive upon pallets which allows stacking, or are the drums strap tied, or secured together in some fashion?

What prevents the drums in this configuration from becoming unstable, possibly falling and causing a bodily injury or property damage incident.

JUSTIFICATION

Loose drum stacking activities regarding height can be instable, and possibly result in either bodily injuries or property damage. Drums are to be stored in a secured, stable manor.

RECOMMENDATION

Evaluate storage practices regarding the drum containers.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: January 31, 1994
Reviewer Signature: Mark L. Dutton 3/8/94

Assigned Category: 4
Comment Status: Open Open - Cat 4
ESQ Review Number: 34120

Cog Engineer agrees with comment but suggests that it be a Category 4 comment rather than a Category 5. Graham agreed with Category change.

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. Assesment will be performed during Title design.
No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 5.0, pg. 7, 5.2.8
Drawing #:
Zone Location:

Reviewer Identification: GRAHAM
Rev Comment #: 3
Comment Category: 4
Sheet #:

COMMENT

Control systems- use of photo cells, sensors rollers, etc.

JUSTIFICATION

These controls can be possibly used/bypassed by maintenance personnel in lieu of the use of engineered Lock and Tag out procedures.

RECOMMENDATION

Future design of controls and related maintenance procedures will need to address these control systems, so that no energy is present during maintenance activities. Controls or equipment should have Lock and Tag capabilities, which would prevent bodily injury or other types of losses.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: January 31, 1994
Reviewer Signature: [Signature] 3/8/94

Assigned Category: 4
Comment Status: Open
ESQ Review Number: 34120

Open - cat 4

Cog Engineer agrees with comment, should be implemented during Title I design phase.

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 4

ROM Cost Impact:

Construction Package Number:

A lock and tag procedure on the MCCs is mandatory. The photo cells and proximity switches are deactivated by disconnecting the MCC power. Localized maintenance control stations are protected by a key authorization. The maintenance operator will be aware of the administrative controls required to make the work area safe before maintenance activities are undertaken. All such controls will be addressed during Title design. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 5.4.4, #1
Drawing #:
Zone Location:

Reviewer Identification: GRAHAM
Rev Comment #: 4
Comment Category: 5
Sheet #:

COMMENT

There is the possibility of Pyrophoric metal items entering into the shredder, which could result in a fire event in the presence of an inert atmosphere, such as the planned use of Nitrogen gas.

JUSTIFICATION

Materials within the drums regarding pyrophoric metals are discussed as particles. Since all drum contents have not been characterize, there may exist the possibility of larger that particle materials present.

RECOMMENDATION

Drums may need further characterization prior to processing, or closer inspection of suspicious metal materials during the sorting table process, prior to the shredder operation. Either method may not guarantee 100% prevention of pyrophoric metals igniting at contact with the shredder blades.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: January 31, 1994
Reviewer Signature: Mark G. Parker 3/8/94

Assigned Category: 5
Comment Status: Closed
ESQ Review Number: 34120

All waste feed to WRAP 2A will be fully characterized. Current projections do not identify pyrophoric metals as requiring processing in WRAP 2A. The primary purpose of the nitrogen atmosphere is to protect against a fire originating with combustible waste materials (e.g., plastic, paper, or wood). Resolution was agreed to by Graham.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: N/A

ROM Cost Impact:

Construction Package Number:

This is a closed comment. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 5.10.3, #3
Drawing #:
Zone Location:

Reviewer Identification: GRAHAM
Rev Comment #: 5
Comment Category: 5
Sheet #:

COMMENT

Under the heading, Sample Handling, the last sentence indicates that due to the physical presence of a competent laboratory person being within the lab, will prevent any possibility of samples being treated underneath the wrong fume hood.

JUSTIFICATION

If anything can go wrong, it will. The competent laboratory personnel may not be present or observant at all times. Samples can still possibly be placed underneath the incorrect fume hood. Simply labeling of hoods does not prevent personnel from placing samples in wrong hoods.

RECOMMENDATION

Fume hoods should have physical locking capabilities which would prevent the incorrect usage of hoods during sample activities. Labeling and the presence of a competent laboratory person are not prudent safety controls.

WHC DISPOSITION

Assigned WHC Cog: LECLAIR
Date Assigned: January 31, 1994
Reviewer Signature: _____

Assigned Category: 5
Comment Status:
ESQ Review Number: 34120

The concern here seems to be that the nonradioactive samples will be contaminated while in the Sample Management Area, whether by inadvertent placement in the Active Fume Hood or by some other means. G. F. Boothe reviewed this issue and concluded that the SMA is a radioactive waste management area (RWMA) and must be operated as such (DSI, "PFD Action Items," G. F. Boothe to T. R. Pauly, dated 12/21/93). Boothe goes on to clarify that, "therefore any chemicals that are opened in the hood or even the room must be considered potentially contaminated. All this means is that before disposal of any hazardous waste generated in the Sample Management Area, we should assay the waste for radioactivity, which is a good idea anyway."

Final Disposition

A-E Lead Engineer: Voke

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Text is revised to indicate that there will be a separate non-confinement area to handle inactive samples.

M.D. LeClair for Mark G. Graham per telecon 03/02/94

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 6.2.3.8 pg.18, #3.(e)
Drawing #:
Zone Location:

Reviewer Identification: GRAHAM
Rev Comment #: 6
Comment Category: 5
Sheet #:

COMMENT

Building construction materials consist of various floor covering materials such as carpet, vinal, glues, etc. Materials may give off various gasses, including formaldehyde.

JUSTIFICATION

Gasses from materials may present health problems for building occupants.

RECOMMENDATION

A bake in period of the interior building materials would assist in off-gassing materials prior to occupancy. Other alternatives include careful selection of materials, which may reduce possible health hazards as well as possible cost reductions for the project.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: January 31, 1994
Reviewer Signature: _____

Assigned Category: 5
Comment Status: Closed
ESQ Review Number: 34120

This has nothing to do with the design. It is the responsibility of the construction contractor to deal with this issue.

Final Disposition

A-E Lead Engineer: Bowlin

Final Category: 5

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

*O'Key per telcon
w/ Lamberd 4/10/94*

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: <u>WRAP 2A ACDR</u>	Reviewer Identification: <u>GRAHAM</u>
Volume #: <u>I</u>	Rev Comment #: <u>7</u>
Section Paragraph #: <u>6.3.3.3, pg. 24 Table</u>	Comment Category: <u>2</u>
Drawing #:	Sheet #:
Zone Location:	

—————COMMENT—————

Pressure references, vary between the text and the appendix. The above reference, compares pressure to atmosphere, and appendix references pressures to zones.

—————JUSTIFICATION—————

In Vol III A, Appendix D, 4.3, Section 1, line A, the pressure is referenced to the next higher zone.

However, in Vol. I, the table specifies differential pressure with respect to atmosphere.

—————RECOMMENDATION—————

All references of building area zones should be made in reference to atmosphere.

—————WHC DISPOSITION—————

Assigned WHC Cog: <u>HORGOS</u>	Assigned Category: 3
Date Assigned: January 31, 1994	Comment Status: Open <u>Closed</u>
Reviewer Signature: <u>Mark J. Parker 7/18/94</u>	ESQ Review Number: <u>34120</u>

It will be recommended to the A/E that all references to operating pressures are to be in a range rather than a specific pressure level. The Table in Section 6.3.3.3, page 24 should be changed to reflect a range of pressure.

—————Final Disposition—————

A-E Lead Engineer: Gehret	Final Category: 3
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ROM Cost Impact:	Construction Package Number:
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Agree with WHC Disposition. Table revised accordingly.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: I
 Section Paragraph #: 6.3.9, pg. 31 #6
 Drawing #:
 Zone Location:

Reviewer Identification: GRAHAM
 Rev Comment #: 8
 Comment Category: 5
 Sheet #:

COMMENT

Location and placement of either the dilute acid or caustic materials is not indicated. Are the caustic materials to be purchased in 55 gallon drums? What is the expected capacity of the caustic feed tanks, if drums are not used. Any dispensing of materials into smaller containers, or is materials all automatic feed to use locations. Will there be any manual material handling of these materials by employees/personnel? Identification of piping systems, color coding or labeling, and adjacent areas.

JUSTIFICATION

Item #6 does not specify exactly the placement or location of these materials (Drums or Tanks). Previous paragraphs identify the Aqueous Make Up room (AMU). Storage and handling practices, location, and or possible rupture of tanks, spillage not indicated at this time.

RECOMMENDATION

Specify location or placement of drums/tanks and respective capacities. Are all acids/caustic materials stored in this one location? Address material handling activities. Identification of piping systems.

WHC DISPOSITION

Assigned WHC Cog: PAULY
 Date Assigned: January 31, 1994
 Reviewer Signature: *Mark E. Paulsen*

Assigned Category:
 Comment Status: *closed*
 ESQ Review Number: 34120

Final Disposition

A-E Lead Engineer: Chapin

Final Category: 4/5

ROM Cost Impact:

Construction Package Number:

These concerns are a level of detail that will bbe addressed in Title design. No change to ACDR. The SDRD may be modified to stipulate specific chemical handling requirements.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR Reviewer Identification: GRAHAM
Volume #: I Rev Comment #: 9
Section Paragraph #: 7.2.1.2, pg. 2, 1&2 Comment Category: 5
Drawing #: _____ Sheet #: _____
Zone Location: _____

COMMENT

Regarding the transport corridor, what controls are to be in place for the prevention of a significant upset, as an example, a forklift truck accident.

JUSTIFICATION

Transport corridor routes both incoming and outgoing waste materials. Numerous forklift vehicles may be present at one time within the corridor, which increases the possibility of a collision with other forklifts or drums.

RECOMMENDATION

Evaluate material flow patterns, number of forklifts present to be working in this traffic corridor.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD Assigned Category: 5
Date Assigned: January 31, 1994 Comment Status: Closed
Reviewer Signature: _____ ESQ Review Number: 34120

WHC will provide W112 interface and control interlocks for shipping and receiving waste.

Final Disposition

A-E Lead Engineer: Dutton Final Category: 5
M Cost Impact: _____ Construction Package Number: _____

Agree with WHC disposition. No change to ACDR.

*O. Kay per telcon
w/ Graham 4/20/94*

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR

Volume #: I

Section Paragraph #: 7.2.2.3, pg. 17 (b)

Drawing #:

Zone Location:

Reviewer Identification: GRAHAM

Rev Comment #: 10

Comment Category: 5

Sheet #:

COMMENT

New 55 gallon drums are indicated to be stacked up to four levels high. How are these containers received? Are drums received upon pallets, which allow stacking? Are the drums strapped or secured together in some manor?

What prevents the drums from becoming unstable, and falling possibly causing either bodily injury or other property damage?

JUSTIFICATION

Loose drum stacking is unstable and may result in either bodily injuries or property damage. Drums are to be stored in a secure, stable manor.

RECOMMENDATION

Evaluate storage practices regarding the drum stacking.

WHC DISPOSITION

Assigned WHC Cog: HORGOS

Date Assigned: January 31, 1994

Reviewer Signature: Mark Y. Graham 3/8/94

Assigned Category: 4

Comment Status: Open

ESQ Review Number: 34120

This is a essentially a duplicate of the Reviewer's comment #2, the Cog Engineer agrees with the comment but suggests that it be changed to a Category 4 comment. Graham agreed to Category change.

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 4

ROM Cost Impact:

Construction Package Number:

See comment 2 for disposition.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: <u>WRAP 2A ACDR</u>	Reviewer Identification: <u>GRAHAM</u>
Volume #: <u>I</u>	Rev Comment #: <u>11</u>
Section Paragraph #: <u>7.2.3.3,pg. 25,pg.#2</u>	Comment Category: <u>5</u>
Drawing #:	Sheet #:
Zone Location:	

COMMENT

Regarding Hand and Forearm protection, this protection must be provided when operations necessitate the use of this equipment.

JUSTIFICATION

Hands on operations must provide cut and puncture protection to prevent both bodily injury and exposure to radioactive materials.

RECOMMENDATION

Provide proper Cut & Puncture Protection.

WHC DISPOSITION

Assigned WHC Cog: <u>HORGOS</u>	Assigned Category: 4
Date Assigned: <u>January 31, 1994</u>	Comment Status: Open <i>Open-Cat 4</i>
Reviewer Signature: <i>Mark Y. [unclear] 3/8/94</i>	ESQ Review Number: <u>34120</u>

The Statement referred to in this Comment was extracted from DOE Order 6430.1A, General Design Criteria. That statement is design guidance for the A/E. Implementation of that guidance will occur during the Detailed Design Phase of the Program. Category change was agreed to by Graham.

Final Disposition

A-E Lead Engineer: <u>Sharpe</u>	Final Category: 4
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ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 7.2.3.3, pg. 25
Drawing #:
Zone Location:

Reviewer Identification: GRAHAM
Rev Comment #: 12
Comment Category: 5
Sheet #:

COMMENT

Regarding 1300-8.4 Waste Segregation-

What is the criteria for the individual grouping of like materials?

JUSTIFICATION

Suggested criteria groups are stated, but the extent of material types, sizes, or other physical characteristics are not defined at this time.

RECOMMENDATION

Establish criteria for the grouping of the like materials.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: January 31, 1994
Reviewer Signature: Mark J. Durham 3/8/94

Assigned Category: 4
Comment Status: Open *Open - Cat 4*
ESQ Review Number: 34120

The statement referred to in the comment was extracted from DOE Order 6430.1A, General Design Criteria. That statement is Design Guidance for the A/E. Implementation of that Guidance will occur during the Detailed Design Phase of the Program.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 5.4.4, pg. 10
Drawing #:
Zone Location:

Reviewer Identification: GRAHAM
Rev Comment #: 13
Comment Category: 5
Sheet #:

COMMENT

The potential of pyrophoric metal materials require consideration for class "D" fire extinguishers. Regarding the Nitrogen blanket, state the relationship between N2 input and exhaust, as well as the air tightness of the system.

JUSTIFICATION

Pyrophoric materials may present fire hazards. Containment of Nitrogen gas within shredder, is there any possibility of a confine space developing by displacement of oxygen by the Nitrogen blanket?

RECOMMENDATION

Pyrophoric material content within drums should be evaluated. Metals may be present which are larger than just particles. Atmospheric controls of nitrogen blanket system, and room containing equipment may possibly be in need of additional review.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: January 31, 1994
Reviewer Signature: Mark Y. Disher 3/5/94

Assigned Category: 4
Comment Status: Open *Open - Cat 4*
ESQ Review Number: 34120

This Comment is the same as Reviewer's comment #4. Current Waste Feed Projections do not identify any Pyrophoric materials for processing within WRAP 2A. The nitrogen atmosphere is provided to protect against a possible fire with combustible materials (e.g., plastic, paper, or wood). The flow rate of nitrogen and the leak tightness of the system should be determined during the Detailed Design Phase of the Program.

Final Disposition

A-E Lead Engineer: Sharpe/Tagge

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 7.2.3.3, pg. 27 #4
Drawing #:
Zone Location:

Reviewer Identification: GRAHAM
Rev Comment #: 14
Comment Category: 5
Sheet #:

COMMENT

#4. Secondary Wastes-

Are there any liquid incompatibilities? Are these liquids neutralized prior to collection, or are they directly drained to the liquid waste collection tank? Will the liquids react to each other, or with previous collected waste materials existing in the holding tank?

JUSTIFICATION

Incomparable materials may cause unexpected reactions, resulting in the possibility of chemical reaction, or the possible formation of a new, additional chemical waste material.

RECOMMENDATION

Characterization of any free liquids is essential prior to the processing of drum materials, to determine the nature of the free liquids chemical compositions.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: January 31, 1994
Reviewer Signature: *Mark F. Graham 3/2/94*

Assigned Category: 4
Comment Status: Closed *Closed*
ESQ Review Number: 34120

The statement is made in the ACDR that "No Secondary Wastes are expected to arise on a routine basis." This means that none will be generated. The only liquids that could be present will be cooling water that might be used during metal cutting operations. Graham agreed with resolution of comment.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: N/A

ROM Cost Impact:

Construction Package Number:

This is a closed comment. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 7.2.7.3, pg. 50
Drawing #:
Zone Location:

Reviewer Identification: GRAHAM
Rev Comment #: 15
Comment Category: 5
Sheet #:

COMMENT

Top of page, (FDC 2.2.1)

Define the basis of "Lot" prior to treatment.

JUSTIFICATION

What exactly is the definition of a "Lot", chemical make up, material, physical characteristics, etc., prior to treatment.

RECOMMENDATION

The use of the word "Lot" either needs to be defined or replaced with another descriptive word.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
Date Assigned: January 31, 1994
Reviewer Signature: _____

Assigned Category: 3
Comment Status:
ESQ Review Number: 34120

closed

Incorporate more descriptive verbiage into the referenced section.

Final Disposition

A-E Lead Engineer: Chapin

Final Category: 5

ROM Cost Impact:

Construction Package Number:

This comment pertains to a direct quote from the FDC (FDC 2.2.1). A working definition of "lot" has been added to the text. WHC has action to provide a formal definition in the FDC or SDRD. No change to ACDR.

OK per telecom 3/02/94
ML Graham
[Signature] for

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 7.2.8.2, pg. 57
Drawing #:
Zone Location:

Reviewer Identification: GRAHAM
Rev Comment #: 16
Comment Category: 5
Sheet #:

COMMENT

Bulk Powder Storage Systems- possible fire or explosion hazard.

JUSTIFICATION

Potential for dust explosion- in either the silo or piping systems consisting of polyethylene materials. Polyethylene dust may possibly become ignited, resulting in a dust explosion.

RECOMMENDATION

Evaluate fire controls to eliminate or reduce fire or explosion hazards.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
Date Assigned: January 31, 1994
Reviewer Signature: _____

Assigned Category: 4
Comment Status:
ESQ Review Number: 34120

Valid comment - detailed design must address this issue.

Final Disposition

A-E Lead Engineer: Voke

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. Safety evaluation of bulk powder handling system will be developed during Title design. No change to ACDR.

OK Per
telecom ML Graham
3/02/94
for

**WRAP 2A ACDR Review
Design Review Comment Submittal**

Document Title: <u>WRAP 2A ACDR</u>	Reviewer Identification: <u>GRAHAM</u>
Volume #: <u>IIIA</u>	Rev Comment #: <u>17</u>
Section Paragraph #: <u>Appendix C.6.3.#5(b)</u>	Comment Category: <u>3</u>
Drawing #:	Sheet #:
Zone Location:	

COMMENT

Replace the word "eliminate", with the word reduce, or other suitable word which does not indicate an absolute condition or result.

JUSTIFICATION

The inerting system regarding the nitrogen blanket gas has not yet been proven to prevent fire or explosion of pyrophoric metal materials.

RECOMMENDATION

Replace the word "eliminate" with another word which does not indicate an absolute condition or result.

WHC DISPOSITION

Assigned WHC Cog: <u>PAULY</u>	Assigned Category: 3
Date Assigned: January 31, 1994	Comment Status: C
Reviewer Signature: <u>Mark E. Graham</u>	ESQ Review Number: <u>34120</u>

This comment pertains to ACDR Study 1604-5, "Open/Sort/Size Reduction Evaluation." This study was completed in May 1993 and is included in ACDR Vol.III for information only - no future revisions or further changes to this study are planned.

Final Disposition

A-E Lead Engineer: Basu	Final Category: 3
ROM Cost Impact:	Construction Package Number:
Agree with WHC disposition. No change to ACDR.	

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV ACDR
Section Paragraph #:
Drawing #: H-2-140644
Zone Location:

Reviewer Identification: GRAHAM
Rev Comment #: 18
Comment Category: 5
Sheet #: 2 of 2

COMMENT

The issue is located in sections F & 3, Grid/Collum.

What is the waste? How is it disposed of?

JUSTIFICATION

The waste is not identified, nor identified where waste material is directed to, or ends up regarding the process.

RECOMMENDATION

Identify where waste is addressed.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: January 31, 1994
Reviewer Signature: *Mark A. Dutton* 3/18/94

Assigned Category: 5
Comment Status: Closed *Closed*
ESQ Review Number: 34120

This comment addressed Stream #22 on Dwg. H-2-140644, sh. #2. Stream 22, which consists of decanted "bleed water", is shown going into a drum but there was no indication of the disposition of the water. It was explained to the commenter that the packaged water would be returned to the main process line where it would be used in mixing additional batches of grout. As an alternative, the water could be sent to the Liquid Effluent Treatment Facility (LETf) for treatment. Comment is closed.

Final Disposition

A-E Lead Engineer: Dutton

Final Category: N/A

ROM Cost Impact:

Construction Package Number:

This is a closed comment. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Spec #: 1
Spec Paragraph #: 4.5.2
Drawing #:
Zone Location:

Reviewer Identification: KOOIKER
Rev Comment #: 19
Comment Category: 3
Sheet #:

COMMENT

"...handles new drums and new product containers annually." This really doesn't mean anything. Please clarify.

JUSTIFICATION

This sentence implies that containers and drums are only received once per year.

RECOMMENDATION

Delete the word "annually" or add some numbers as to how many are handled annually.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: January 31, 1994
Reviewer Signature: SK

Assigned Category: 3
Comment Status:
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Deleted the word "annually".

WRAP2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Spec #: 1
Spec Paragraph #: 5.1.2
Drawing #:
Zone Location:

Reviewer Identification: KOOIKER
Rev Comment #: 20
Comment Category: 2
Sheet #:

COMMENT

The second sentence states that the WRAP 2A lift truck will depalletize the drums received from W112. A lift truck cannot grab single drums without a special end effector.

JUSTIFICATION

If a special end effector is used, it needs to be included here for the process description to make sense. A palletizing station may be a better way to accomplish this.

RECOMMENDATION

Clarify this section.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: January 31, 1994

Assigned Category: 2
Comment Status: C

Comment closed. This is a duplicate of comment #23.

Reviewer Signature: SKOOIKER ESQ Review Number:

Final Disposition

A-E Lead Engineer: Dutton

Final Category: N/A

ROM Cost Impact:

Construction Package Number:

This is a closed comment. No change to ACDR.

**WRAP and Solid Waste Projects
Design Review Comment Submittal**

Document Title: WRAP 2A ACDR
Spec #: 3B
Spec Paragraph #: Table 6
Drawing #:
Zone Location:

Reviewer Identification: KOOIKER
Rev Comment #: 21
Comment Category: 4
Sheet #:

COMMENT

The WITNESS models receives 2 drums at a time from W112. W112 will transport drums on pallets of 4 drums or as single drums.

JUSTIFICATION

W112 has not fully determined its requirements at this time. It is uncertain what configuration will be used and won't be determined until summer 1994. The most likely drum transport will be as singles or on pallets. Two drums units probably will not be used.

RECOMMENDATION

Depending on the WRAP 2A time frame, wait to change the model until W112 is more certain of its requirements.

WHC DISPOSITION

Assigned WHC Cog: PAULY
Date Assigned: January 31, 1994
Reviewer Signature: *Shodur*

Assigned Category: 4
Comment Status: 0
ESQ Review Number:

The configuration of drums being transported from W-112 to WRAP 2A will be determined, and appropriate guidance will be provided to UE&C, during Title 1 design of WRAP 2A.

Final Disposition

A-E Lead Engineer: Van Zanten

Final Category:

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

WRAP and Solid Waste Projects
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Spec #: 1
Spec Paragraph #: 5.6
Drawing #:
Zone Location:

Reviewer Identification: KOOIKER
Rev Comment #: 22
Comment Category: 2
Sheet #:

COMMENT

WRAP 2A compacts empty drums and disposes of them as LLW. WRAP 1 has a LLW compactor that possibly could be used to compact the drums which may reduce the cost to WRAP 2A.

JUSTIFICATION

WRAP 2A cost reduction.

RECOMMENDATION

Investigate the possibility of sending empty drums to WRAP 1 for compaction and disposal.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: January 31, 1994
Reviewer Signature: Skorailu

Assigned Category: 5
Comment Status: Closed
ESQ Review Number:

WHC will do evaluation to determine option for empty drum handling and disposal.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 5

ROM Cost Impact:

Construction Package Number:

This is a closed comment. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 2.2.2.5
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: NESTER
Rev Comment #: 23
Comment Category: 2
Sheet #: N/A

COMMENT

The text mentions the W112 transport vehicle will deposit the pallets in 2A (presumably on the floor), then the 2A "lift truck" (not sure what this is) will depalletize and load the drums onto the receiving conveyor. It is either not apparent to me how palletized waste containers are transferred to the drum receiving conveyors, or the method described adds extra and possibly unnecessary lift truck operations.

JUSTIFICATION

There is a FDC requirement (Section 2.2.9, 3rd bullet) to provide drum depalletizing in 2A. This requirement appears to be met; however, there may be a better method of streamlining by installing a depalletizing station directly connected to the drum receiving conveyor.

RECOMMENDATION

I recommend the depalletizing station be connect directly to the drum receiving conveyor (example: WRAP-1's depalletizer) to eliminate the amount of direct Operator intervention.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: January 31, 1994
Reviewer Signature: [Signature] 3-11-94
Assigned Category: 4
Comment Status:
ESQ Review Number: N/A

UE&C will establish as part of Title 1 design specific features for waste receipt and handling. This will be coordinated with the A/E for W112 after A/E selection.

Final Disposition

A-E Lead Engineer: Dutton
Final Category: 3

ROM Cost Impact:

Construction Package Number:

See comment 31. The W-112 transport vehicle will deposit the pallets in the WRAP 2A transport corridor. The WRAP 2A fork lift truck (FLT) operator will depalletize the load with a permanently attached (to the FLT) double drum clamp and load them directly to the receiving conveyors. The WRAP 1 depalletizer is a single post lifting beam that requires an operator with a shielded operating station. Depalletizing by FLT offers the most flexible system for WRAP 2A and we recommend to stay with it. Revised text to clarify.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 4.2.2
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: NESTER
Rev Comment #: 24
Comment Category: 4
Sheet #: N/A

COMMENT

The facility's footprint coordinates are not referenced.

JUSTIFICATION

The facility's footprint coordinates need to be established and documented in the design.

RECOMMENDATION

Reference the facility's coordinates in the design document (either by reference to another document containing the coordinates or the coordinates them self.).

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: January 31, 1994
Reviewer Signature: *[Signature]* 3-11-94

Assigned Category: 4
Comment Status:
ESQ Review Number: N/A

These will be specified as part of title 1 design.

Final Disposition

A-E Lead Engineer: Bowlin/Trimbell

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

**WRAP 2A ACDR Review
Design Review Comment Submittal**

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 4.2.9
Drawing #: H-2-140733
Zone Location: B5

Reviewer Identification: NESTER
Rev Comment #: 25
Comment Category: 1
Sheet #: 1

COMMENT

There are two restrooms (men's & women's) located in Zone II.

JUSTIFICATION

Restrooms are not to be located in ventilation Zones I or II, only in Non-confinement zones.

RECOMMENDATION

Recommend removing the restrooms from Zone-II and reevaluate if additional ones are needed in the Non-confinement area to compensate.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Date Assigned: January 31, 1994

Reviewer Signature: [Signature] 3-11-94

Assigned Category: 1

Comment Status:

ESQ Review Number: N/A

Agree with the comment, Restrooms will be deleted from layout

Final Disposition

A-E Lead Engineer: Bowlin

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Deleted restrooms from Zone II area in H-2-140733. Additional restrooms are not required. No change to section 4.2.9.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 4.3.f & 4.4.7
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: NESTER
Rev Comment #: 26
Comment Category: 5
Sheet #: N/A

COMMENT

The transfer corridor extension in WRAP-2A should not be used as a link between W-112 and future WRAP modules. Instead, the corridor will link with future process lines for WRAP-2A only.

JUSTIFICATION

Additional traffic loads through WRAP-2A to other WRAP facilities would significantly increase congestion and accident potential within 2A. W-112's transfer corridor is the line between W-112 and other WRAP facilities. Expansion capabilities in WRAP-2A to accommodate future process lines are under within the project scope, and would influence the transfer corridor design.

RECOMMENDATION

I recommend the paragraph be rewritten to depict transfer corridor utilization for future process line expansion in 2A.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: January 31, 1994
Reviewer Signature: [Signature] 3-11-94

Assigned Category: 5
Comment Status:
ESQ Review Number: N/A

WHC will provide specific requirements as part of SDRD revision.

Final Disposition

A-E Lead Engineer: Bowlin

Final Category: 2/5

ROM Cost Impact:

Construction Package Number:

Agree. Revised paragraphs 4.2.10, 4.3.1.f, and 4.4.7 per WHC recommendation.

**WRAP 2A ACDR Review
Design Review Comment Submittal**

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 5.4.1.2
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: NESTER
Rev Comment #: 27
Comment Category: 1
Sheet #: N/A

COMMENT

Lead is not considered "Debris" under RCRA regulations, it is a "Listed Waste" and should be designated as such.

JUSTIFICATION

The RCRA land disposal restrictions, section dealing with Listed Waste, Code # D008 (Radioactive Lead Solids).

RECOMMENDATION

Lead shall be treated according to the RCRA Listed Waste treatment standard of Stabilization, and it should be designated as a Special Waste in WRAP-2A. Lead can be treated utilizing the Debris Processing System; however, distinction needs to be made that it is not considered a Debris..

WHC DISPOSITION

Assigned WHC Cog: HORGOS

Assigned Category: 3

Date Assigned: January 31, 1994

Comment Status: Open *Closed*

Reviewer Signature: *[Signature]* 3-3-94

ESQ Review Number: N/A

Cog Engineer comment: Section 5.4.1.2 does not identify lead as "Debris." It states: "Lead will be processed in the Debris Processing Enclosure." However, the A/E will be requested to add a clarifying statement: "Although Lead is a Listed Waste and is not classified as 'Debris', the treatment process for lead is the same treatment as for Debris. Therefore, Lead Waste will be treated in the Debris Processing System. Nester agreed to the change from Category 1 to Category 3.

Final Disposition

A-E Lead Engineer: Nelson

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text to clarify that radioactive lead is not "debris", but will be processed through thr debris processing system to accomplish the specified treatment technology as required by RCRA.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 6.3.6
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: NESTER
Rev Comment #: 28
Comment Category: 2
Sheet #: N/A

COMMENT

Only one (1) instrument air dryer is being specified. When the desiccant is changed or other maintenance performed on the dryer, the dryer will need to be Lock & Tagged out of service. This will either require shutting down the IA system (thus shutting down operations), or wet air will be introduced into the IA system because the dryer was bypassed.

JUSTIFICATION

Utilizing continuity of operations principals, the Facility design should evaluate support systems for redundancy that would impact normal operations do to periodic maintenance.

RECOMMENDATION

I recommend that a redundant dryer be installed in the IA system to accommodate periodic maintenance of the dryers.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: January 31, 1994
Reviewer Signature: [Signature] 3-11-94

Assigned Category: 1/2
Comment Status:
ESQ Review Number: N/A

UE&C will ensure that redundant instrument air is provided in the facility.
The TEXT of ACDR will be revised.

Final Disposition

A-E Lead Engineer: Chapin

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Paragraph 3 of Section 6.3.6 describes "an air dryer package which utilizes two heaterless regenerative towers." Paragraph 1 of Section 6.3.6 has been revised to list "air dryer package" in place of "air dryer."

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 7.2.1.4.a
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: NESTER
Rev Comment #: 29
Comment Category: 3
Sheet #: N/A

COMMENT

Referenced FDC number should be-FDC-001, not-FDC-011.

JUSTIFICATION

Typo in reference.

RECOMMENDATION

Correct referenced FDC number.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: January 31, 1994
Reviewer Signature: [Signature] 3-11-94

Assigned Category: 3
Comment Status:
ESQ Review Number: N/A

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: I
 Section Paragraph #: 7.2.2.3.3.a
 Drawing #: N/A
 Zone Location: N/A

Reviewer Identification: NESTER
 Rev Comment #: 30
 Comment Category: 3
 Sheet #: N/A

COMMENT

Bullet referencing FDC Section 2.2.9 (pg-I-16): statement reading "- Waste drums are not banded." is not correct, incoming waste drums may be banded coming from W-112.

JUSTIFICATION

WHC-SD-W112-FDC-001 R2, Section 3.3.5.1: "The staging area shall be supported by a palletizing station for shipments received without pallets."

RECOMMENDATION

Suggest changing statement to the following: "- Incoming waste drums and new empty drums may be palletized and banded. Drums need to be unbanded and depalletized at their appropriate unloading areas."

WHC DISPOSITION

Assigned WHC Cog: HORGOS
 Date Assigned: January 31, 1994
 Reviewer Signature: [Signature] 3-3-94

Assigned Category: 3
 Comment Status: Open *Closed*
 ESQ Review Number: N/A

Cog Engineer agrees with the comment. There remains a possibility that drums will be banded. Until a final decision is made, that comment should be changed in the ACDR and the A/E should make provisions for removal of the bands.

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 5.2.2.2.a
Drawing #:
Zone Location:

Reviewer Identification: MYERS
Rev Comment #: 31
Comment Category: 3
Sheet #:

COMMENT

The second sentence states ".....WRAP 2A lift truck will depalletize and place individual drums on the receiving conveyor." Change sentence to read ".....WRAP 2A fork truck operator....." and describe how individual drums are placed on receiving conveyor.

JUSTIFICATION

Statement is not clear how the action is to take place.

RECOMMENDATION

Revise the second sentence in Section 5.2.2.2.a to add: "lift truck operator.."

WHC DISPOSITION

Assigned WHC Cog: <u>HORGOS</u>	Assigned Category: <u>3</u>
Date Assigned: January 31, 1994	Comment Status: <u>Open</u> Closed
Reviewer Signature: <u>J B Myers 3/4/94</u>	ESQ Review Number:

Cog Engineer agrees with comment, statement should be reworded.

Final Disposition

A-E Lead Engineer: <u>Basu</u>	Final Category: <u>3</u>
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ROM Cost Impact:

Construction Package Number:

Agree. Revised section 5.2.2.2.a to clarify operation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 5.2.4.1
Drawing #:
Zone Location:

Reviewer Identification: MYERS
Rev Comment #: 32
Comment Category: 3
Sheet #:

COMMENT

It is not clear what the term "chain transfers" in the last sentence means with respect to an operations action.

JUSTIFICATION

Needed to provide a complete understanding of material movements.

RECOMMENDATION

Suggest clarifying paragraph to make it more apparent how the material movement will take place.

WHC DISPOSITION

Assigned WHC Cog: HORGOS

Assigned Category: 3

Date Assigned: January 31, 1994

Comment Status: ~~Open~~ Closed

Reviewer Signature: J. B. Myers 3/4/94

ESQ Review Number:

Cog Engineer agrees that a clarifying statement should be added.

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised section 5.2.4.1 to clarify chain transfer.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: I
 Section Paragraph #: 5.3.2.1
 Drawing #:
 Zone Location:

Reviewer Identification: MYERS
 Rev Comment #: 33
 Comment Category: 4
 Sheet #:

COMMENT

It is not apparent here how the crane and manipulator operator observes the operation in the box breakdown room.

JUSTIFICATION

Drawing H-2-140628 sht 4/4 note #6 describes how the operator will observe crane and manipulator operations. This should be repeated in the text.

RECOMMENDATION

Detail in the text how the crane and manipulator operator observes the operation in the box breakdown room.

WHC DISPOSITION

Assigned WHC Cog: HORGOS

Assigned Category: 3

Date Assigned: January 31, 1994

Comment Status: Open

Reviewer Signature: J. B. Myers 3/4/94

ESQ Review Number:

closed

Cog Engineer agrees with the recommendation but suggests that it be a Category 3 comment. Myers agrees with change in Category.

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text to clarify.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: I
 Section Paragraph #: 5.3.2.2
 Drawing #:
 Zone Location:

Reviewer Identification: MYERS
 Rev Comment #: 34
 Comment Category: 4
 Sheet #:

COMMENT

Since the floor of the box breakdown is to be SS it could be damaged (hole poked through) if the box is lowered rather abruptly. The area where the box is to be placed must be strong enough the prohibit being damaged by falling objects.

JUSTIFICATION

Experience has shown that SS floors, when damaged (hole poked through) allow decontamination solutions to run under the floor and erode the concrete. This causes voids between the concrete and the SS floor that over time will cause the floor to split and have to be repaired.

RECOMMENDATION

The thickness of the SS floor to resist punchers, scrapes, ...ect needs to be evaluated during Title design.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
 Date Assigned: January 31, 1994
 Reviewer Signature: J.B. Myers 3/4/94

Assigned Category: 4
 Comment Status: Open
 ESQ Review Number:

o/en
cat. 9

Cog Engineer agrees that an evaluation be done during Title I Design.

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: I
 Section Paragraph #: 5.3.2.2
 Drawing #:
 Zone Location:

Reviewer Identification: MYERS
 Rev Comment #: 35
 Comment Category: 1
 Sheet #:

COMMENT

During operation, the box will most likely need to be re-oriented. At present this is only possible using the over head crane which may be difficult to perform when the box is partially dismantled.

JUSTIFICATION

Conduct of operations principle.

RECOMMENDATION

Suggest placing the box on a turn table that can be remotely rotated by the operator.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
 Date Assigned: January 31, 1994
 Reviewer Signature: J. B. Myers 3/4/94

Assigned Category: 4
 Comment Status: Open
 ESQ Review Number:

Cog Engineer agrees that a turntable is probably required but recommends that the Category be changed to a Category 4 Comment. Myers agrees to Category change.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 7.3.3.6.a
Drawing #:
Zone Location:

Reviewer Identification: MYERS
Rev Comment #: 36
Comment Category: 3
Sheet #:

COMMENT

The third sentence indicating that a shower will be in temporary containments structures is not correct; a portable emergency decontamination shower would be staged near the work activity (if applicable) outside the temporary containment structure ("green house"). The last sentence indicates that respiratory protection depends on the severity of the job; respiratory protection requirements are based on contamination not the severity of the operation.

JUSTIFICATION

The normal Hanford practice is to have either permanent or portable emergency decontamination showers staged by areas where personnel could become accidentally contaminated; however, not to have the showers in contaminated areas them-self (ie: green house). Respiratory protection is base upon airborne contamination.

RECOMMENDATION

Eliminate "shower" from first ¶. Replace "severity of operation " with "airborne contamination" in the last sentence.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: January 31, 1994
Reviewer Signature: J. B. Myers

Assigned Category: 3
Comment Status:
ESQ Review Number:

closed *DX2*

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: I
 Section Paragraph #: 2.2.2.13
 Drawing #: N/A
 Zone Location: N/A

Reviewer Identification: KRUGER
 Rev Comment #: 37
 Comment Category: 5
 Sheet #: N/A

COMMENT

Filling of product containers containing compacted waste drums with grout needs to be considered as an option to reduce void volume for disposal as LLW. Alternately, the effort for LLW volume reduction needs to be evaluated to determine if the product containers will come under the volume reduction processing being considered by an outside contractor.

JUSTIFICATION

WHC-EP-0063 REV-4, Section 3.7.3.2.1: Void volume shall not exceed 10% of the container volume in a LLW package (Part 1). The Project needs to follow/meet site/nation wide handling/treatment methodologies for LLW.

RECOMMENDATION

Recommend sending the product containers containing compacted waste drums through the vibro-grout line during this stage of the Project.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
 Date Assigned: January 31, 1994
 Reviewer Signature: *[Signature]*

Assigned Category: 5
 Comment Status: closed
 ESQ Review Number: N/A

SDRD will provide clarification for this issue.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 1/5

ROM Cost Impact:

Construction Package Number:

Agree. Revised sections 2.2.2.13, 5.1.10, and 5.6.1 per recommendation. WHC has action to revise SDRD to more clearly define design requirements.

**WRAP 2A ACDR Review
Design Review Comment Submittal**

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 3.2.8.d
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: KRUGER
Rev Comment #: 38
Comment Category: 5
Sheet #: N/A

COMMENT

Testing by WHC to determine if the 48hr curing time is adequate for grout & polymer needs to be conducted ASAP and before Title 1 Design is initiated.

JUSTIFICATION

May impact the Facility footprint/layout which in turn could affect the TEC.

RECOMMENDATION

Perform cure testing to determine if 48hr curing time is adequate ASAP.

WHC DISPOSITION

Assigned WHC Cog: PAULY

Assigned Category: 5

Date Assigned: January 31, 1994 *4/25/94*

Comment Status: Q *closed*

Reviewer Signature: *[Signature]*

ESQ Review Number: N/A

It is recognized that confirmation testing of curing/cooling time requirements are needed. Because of the funding and schedular constraints, however, it will not be possible to delay start of Title 1 design until after testing has been completed. The results of all relevant testing performed at Hanford or elsewhere will be shared with the A/E and incorporated into design requirements as it becomes available and understood.

Project schedules will have to be developed showing interties between this confirmation testing and Title design. Funding requirements for this testing will be a function of the critical path schedule.

Final Disposition

A-E Lead Engineer: Chapin

Final Category: 5

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: I
 Section Paragraph #: 4.5 (general)
 Drawing #: H-2-140628 & H-2-140649
 Zone Location: N/A

Reviewer Identification: KRUGER
 Rev Comment #: 39
 Comment Category: 4
 Sheet #: 1 & 1

COMMENT

A means must be provided to rout or otherwise clear chutes in the event waste hangs up or the chutes becomes blocked for some reason.

JUSTIFICATION

Continuity of operations and maintenance arena. If cleanout access was not available, the equipment would have to be dismantled to clear blockages.

RECOMMENDATION

Provide a means to rout/clean out clogged waste chutes.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
 Date Assigned: January 31 1994
 Reviewer Signature: [Signature] 3/3/94

Assigned Category: 4
 Comment Status: Open
 ESQ Review Number: N/A

[Signature] den
cat 4

Cog Engineer concurs there is a possibility waste materials could hang up in the transfer chutes and there is no indication in the ACDR how these would be cleared. UE&C should provide details of how waste chutes will be cleared. These details should be provided during the Detailed Design phase.

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 5.2.2.1.a
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: KRUGER
Rev Comment #: 40
Comment Category: 3
Sheet #: N/A

COMMENT

The first sentence should be changed to read as follows: "Waste drums in excess of 55 gallons or 2000 pounds and boxes will be ---."

JUSTIFICATION

All boxes should enter WRAP-2A processing via the Box Break Down Area; otherwise, entry/exit ports on the main processing line would become very difficult to design.

RECOMMENDATION

Rewrite sentence so that all boxes enter the Box Break Down Area.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: January 31, 1994
Reviewer Signature: OK Kruger 3/3/94

Assigned Category: 3
Comment Status: Open Closed
ESQ Review Number: N/A

Cog Engineer agrees with suggested change.

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per comment.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 5 (general)
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: KRUGER
Rev Comment #: 41
Comment Category: 1
Sheet #: N/A

COMMENT

The document does not address processing of HEPA filters which contain wire and generally are not considered to be suitable for shredding.

JUSTIFICATION

All waste streams specified in WHC-SD-W100-RD-001 needs to have a suitable/qualified treatment methodology to meet RCRA & WAC-303 requirements.

RECOMMENDATION

Provide treatment mythology for HEPA filters entering WRAP-2A.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: January 31, 1994
Reviewer Signature: CL Kruger 3/11/94

Assigned Category: 4
Comment Status: closed OK
ESQ Review Number: N/A

Agree with comment, Action item #135 of UE&C list to address issue. Response date needed by 3/15/94. Comment will be addressed during title 1 design

Final Disposition

A-E Lead Engineer: Chapin

Final Category: 4/5

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition; but note that UE&C Action Item # 135 requires WHC action. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 5.3.2.7
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: KRUGER
Rev Comment #: 42
Comment Category: 4
Sheet #: N/A

COMMENT

Personnel entry into process enclosure for processing waste outside the manipulator capability is not an acceptable operations philosophy.

JUSTIFICATION

Not an acceptable operations philosophy (ref: FDC Section 2.1).

RECOMMENDATION

Provide manipulator(s) or other type devices capable of processing the Box Breakdown Area designated waste without requiring Operations personnel to enter enclosure or to don respiratory protection.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: January 31, 1994
Reviewer Signature: OK Kruger 3/3/94

Assigned Category: 1
Comment Status: Open closed
ESQ Review Number: N/A

Cog Engineer agrees with the suggested change but recommends that the Category be changed from Category 4 to Category 1. D. Nester agreed to the Category change.

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Revised text to stipulate man-access for maintenance only.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 5.4(5).4.1 & 5.9.3.1
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: KRUGER
Rev Comment #: 43
Comment Category: 2
Sheet #: N/A

COMMENT

The value of <8% in Section 5.4(5).4. for oxygen content of the shredder is not consistent with the value of <3.4% shown in 5.9.3.

JUSTIFICATION

These values should be the same and maintaining the lower of the two values could be quite difficult in this type of equipment and process.

RECOMMENDATION

Verify the oxygen content requirements for the two shredders.

WHC DISPOSITION

Assigned WHC Cog: HORGOS/PAULY/LAMBERD
Date Assigned: January 31, 1994
Reviewer Signature: [Signature] 3/3/94

Assigned Category: 4
Comment Status: Open *Closed*
ESQ Review Number: N/A

Cog Engineer agrees with the recommendation, Oxygen content requirement should be verified during Title I design phase but suggested it be changed to Category 4. D. Nester agreed with the Category change.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised section 5.4.4.1 from 8% to 3.4%.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR

Volume #: I

Section Paragraph #: 5.4(5).4.1 & 5.9.3.1

Drawing #: N/A

Zone Location: N/A

Reviewer Identification: KRUGER

Rev Comment #: 44

Comment Category: 2

Sheet #: N/A

COMMENT

Each ¶ indicates the oxygen content should be kept low to eliminate the possibility of igniting a "combustible gas mixture". This appears to be an error since no combustible gas mixtures should be present in this equipment.

JUSTIFICATION

No combustible gas mixtures should be present in this equipment.

RECOMMENDATION

Suggest changing ¶s to eliminate "combustible gas mixture" and include a statement such as "----ignite solid waste such as paper, plastic, ect. which may have a low ignition temperature.".

WHC DISPOSITION

Assigned WHC Cog: PAULY/HORGOS/LAMBERD

Date Assigned: January 31, 1994

Reviewer Signature: *OL Kruger*

Assigned Category: 2

Comment Status: Q

ESQ Review Number: N/A

closed NY²

UE&C to correct text and ensure consistency between referenced sections.
Comment #192 also pertains to this topic.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC recommendation. Also see comment 192.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: I
 Section Paragraph #: 5.5.4.1
 Drawing #: N/A
 Zone Location: N/A

Reviewer Identification: KRUGER
 Rev Comment #: 45
 Comment Category: 4
 Sheet #: N/A

COMMENT

A means for measuring the water content of incoming waste and monitoring the water content of waste as it is drying needs to be provided.

JUSTIFICATION

Process control needs.

RECOMMENDATION

Provide capability to measure the water content of the incoming waste and waste in the dryer.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
 Date Assigned: January 31 1994
 Reviewer Signature: [Signature]

Assigned Category: 4
 Comment Status: Open
 ESQ Review Number: N/A

Valid comment - details should be included in Title Design. MFDs should included in MFD control loops.

Final Disposition

A-E Lead Engineer: Chapin

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree that Title design will determine means to measure waste feed water content and to provide some indication of water content of dried waste. (However, including water content measurement in control loops may not be appropriate.) No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR

Volume #: I

Section Paragraph #: 5.8.3.8 & 5.8.4.9

Drawing #: N/A

Zone Location: N/A

Reviewer Identification: KRUGER

Rev Comment #: 46

Comment Category: 1

Sheet #: N/A

COMMENT

The design impacts of using a grout collection container to allow solids collected during equipment clean out to settle do not appear to be thoroughly evaluated. A means must be available to remove the water from the settled solids and return the solids to the process since curing under water would not be expected to produce a "good" grout.

JUSTIFICATION

Does not appear to meet processing requirements for capability to produce grout that would pass TCLP.

RECOMMENDATION

Suggest further evaluation of clean out system design to meet process requirements (ie: qualified grout).

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT

Date Assigned: January 31, 1994

Reviewer Signature: *[Signature]*

Assigned Category: 1

Comment Status: closed OK

ESQ Review Number: N/A

Valid comment - See Comment #93 for detailed disposition.

Final Disposition

A-E Lead Engineer: Voke

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. See comment 93 for detailed disposition.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: I
 Section Paragraph #: 6.3.3.2.1.c
 Drawing #: N/A
 Zone Location: N/A

Reviewer Identification: KRUGER
 Rev Comment #: 47
 Comment Category: 4
 Sheet #: N/A

COMMENT

The temperatures of 75 (winter/summer) in Zone 2 and 78 (summer) in the Administrative area with 30% relative humidity are too high for personnel to work comfortably.

JUSTIFICATION

78°F summer and 72°F winter are recommended by DOE Order 6430-1A, Section 1550-1.2.2; however, the Order further goes on and states that other design temperatures can be used if indicated in the project criteria"

RECOMMENDATION

Recommend using 72°F for the winter/summer design temperature for both Zone II & Administrative areas and the maximum temperature shall not exceed 78°F.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
 Date Assigned: January 31, 1994
 Reviewer Signature: [Signature] 3/3/94

Assigned Category: 4
 Comment Status: Open *Open - Cat 5*
 ESQ Review Number: N/A

Cog Engineer agrees with comment.

Final Disposition

A-E Lead Engineer: Gehret

Final Category: 5

ROM Cost Impact:

Construction Package Number:

We don't understand the comment or recommendation. ACDR design is in accordance with FDC and SDRD. No change to ACDR.

with action.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 6.3.3.4.1.e
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: KRUGER
Rev Comment #: 48
Comment Category: 1
Sheet #: N/A

COMMENT

The statement is made that the standby system will automatically start when the operating system fails. Previous communications have indicated the design will be a fail safe system with no standby similar to WRAP-1.

JUSTIFICATION

Backup/standby systems are not required for a Safety Class 3 fail safe HVAC system.

RECOMMENDATION

Rewrite section remove the standby system reference.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: January 31, 1994
Reviewer Signature: *DL Kruger* 3/3/94

Assigned Category: 4
Comment Status: ~~Open~~ Closed
ESQ Review Number: N/A

Cog Engineer agrees with comment but suggested a Category change. D. Nester agreed with the Category change.

Final Disposition

A-E Lead Engineer: Gehret

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Changed "standby" to "redundant."

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 6.0 (general)
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: KRUGER
Rev Comment #: 49
Comment Category: 1
Sheet #: N/A

COMMENT

There is no mention of the central vacuum system FDC requirement (Section 2.1.5) for work station air monitoring. Resolution of FDC comment and the recent change request for WRAP-2A included a dual vacuum pump system sufficiently sized to accommodate all the process air sampling stations.

JUSTIFICATION

WRAP-2A FDC, Section 2.1.5.

RECOMMENDATION

Provide description for central vacuum system. The use of plastic piping was to be considered if acceptable for fire loading.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD Assigned Category: 4
Date Assigned: January 31, 1994 Comment Status: closed
Reviewer Signature: [Signature] 3/11/94 ESQ Review Number: N/A

Agree with Comment, except description is too detailed for this stage of design. Item identified in cost estimate to cover this system as part of the air monitoring system.

Final Disposition

A-E Lead Engineer: Cepeda Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: IV
 Section Paragraph #: N/A
 Drawing #: H-2-140628
 Zone Location: C3-F3

Reviewer Identification: KRUGER
 Rev Comment #: 50
 Comment Category: 1
 Sheet #: 1

COMMENT

The long distance for transport of large items from the third floor to the first floor using the cell hoist needs further evaluation.

JUSTIFICATION

This operation will be time consuming and could cause substantial operations delays with associated loss of production. Another factor is the possibility that heavy items could be dropped as much as 3 floors with the current configuration.

RECOMMENDATION

Suggest an evaluation be performed to provide an additional load out station into boxes for large items on the third floor with an elevator to avoid production slow down and safety concern. Provide comparison of existing design concept versus the recommended concept.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
 Date Assigned: January 31, 1994
 Reviewer Signature: [Signature] 3/3/94

Assigned Category: 4
 Comment Status: ~~Open~~ closed over
 ESQ Review Number: N/A cat 4

WHC has previously commented on the UE&C proposal to transport large and heavy items from the 3rd floor to the 1st floor. This comment and recommendation is a viable alternative to the current design and should be evaluated. Commenter agreed to change to Category 4.

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: I
 Section Paragraph #: 2.2.2.11, 5.1.8.1
 & 5.8.2.1

Reviewer Identification: MCDANIEL
 Rev Comment #: 51
 Comment Category: 4

Drawing #: N/A
 Zone Location: N/A

Sheet #: N/A

COMMENT

Ordinary portland cement should be replaced with the ASTM types of portland cement, and grout additive should be replaced with "provision to provide chemical admixtures". It should be noted that fly ash and blast furnace slag are mineral admixtures. Gypsum should not be referenced, and pulverized fuel ash should be replaced with AATC classes of fly ash.

JUSTIFICATION

Provides more detailed specifications for the grout consumables.

RECOMMENDATION

Recommend incorporating suggestions.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD/WEINGARDT

Assigned Category: 4

Date Assigned: January 31, 1994

Comment Status:

Reviewer Signature: Earl W. McDaniel

ESQ Review Number: N/A

Closed 2/8/94

These will be specified as part of MFD and title 1 design.

Final Disposition

A-E Lead Engineer: Voke

Final Category: 4/5

ROM Cost Impact:

Construction Package Number:

Disagree. In order to be able to specify the grout raw materials, the results of WID testing will need to be known. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 2.2.2.11.a & b
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: MCDANIEL
Rev Comment #: 52
Comment Category: 3
Sheet #: N/A

COMMENT

- a. A one sentence definition of vibro-grouting should be given prior to telling what it is going to be used for.
- b. Particulate/Sludge Grout should be called by Agitated Grout.

JUSTIFICATION

- a. Better clarifies the paragraph for the non technical or informed reader.
- b. Agitated Grout is the common terminology for the process.

RECOMMENDATION

Recommend incorporating suggestions.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: January 31, 1994
Reviewer Signature: [Signature] 3/11/94

Assigned Category: 3
Comment Status: closed
ESQ Review Number: N/A

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Paragraphs 2.2.2.11.a and b revised to provide short definitions of vibro and agitated grout.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR Reviewer Identification: MCDANIEL
Volume #: I Rev Comment #: 53
Section Paragraph #: 2.4.5.(PROCESS CHANGES).a & b. Comment Category: 3
Drawing #: N/A Sheet #: N/A
Zone Location: N/A

COMMENT

a. It is stated that changes were instituted as a result of process studies, testing,....ect. This statement should be supported with some type of reference(s). b. Was the concept changed from in-drum mixing to out of drum mixing because the product drums were changed to boxes? I find this hard to believe.

JUSTIFICATION

A more realistic explanation needs to be given to justify process changes. Both sections a & b need to be changed to reflect reality.

RECOMMENDATION

Provide a more realistic explanation for these changes.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD Assigned Category: 3
Date Assigned: January 31, 1994 Comment Status: Closed DL
Reviewer Signature: Carl W. McDaniel ESO Review Number: N/A

Final Disposition

A-E Lead Engineer: Basu Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised both referenced paragraphs to provide better explanation.

Same as or similar to comment # 71.

D-36

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 3.2.8.d
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: MCDANIEL
Rev Comment #: 54
Comment Category: 5
Sheet #: N/A

COMMENT

I have trouble believing there will be waste settling in the PE waste form even though it is not cured in 48hours, and in the last ¶, 2nd sentence, retarding agents have little to do with rate of heat release, just when hydration starts.

JUSTIFICATION

Technical opinion only.

RECOMMENDATION

Suggest verifying these two variables during WID work.

WHC DISPOSITION

Assigned WHC Cog: PAULY
Date Assigned: January 31, 1994
Reviewer Signature: *PAULY*

Assigned Category: 3/5
Comment Status: 0
ESQ Review Number: N/A

It is currently planned that the cooling & curing process variables will be thoroughly evaluated as a part of the WID program. The 3rd and 4th ¶s currently read as if there were only one issue with PE product cooling (i.e. stratification) and only one solution for control of Grout product temperature (i.e. set retarders), which is misleading.

It is suggested that the 3rd ¶ be revised to demphasize the stratification issue and indicate that the primary concern is whether 4x4x4 PE/Waste product monoliths can be adequately cooled to prevent product degradation (stratification being only one type of potential degradation) using passive cooling. Related issues include sizing of the cooling storage area, handling of thermally hot containers, potential for needing active cooling, potential impacts to extruder design, and potential need to reduce the monolith size.

It is suggested that the 4th ¶ be revised to demphasize the issue of using set retarding agents and to indicate that the primary issue is control of temperature in the curing grout product to prevent product degradation. Control of temperature in the curing product may impact grout formulations and waste loadings, necessitate the use of grout additives (set retarders being only one type of potential additive), sizing of the cooling storage area, potential for needing active cooling, and potential need to reduce the monolith size.

D-57

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: TABLE 8-1, PE
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: MCDANIEL
Rev Comment #: 55
Comment Category: 5
Sheet #: N/A

COMMENT

CaO is very active and difficult to handle. It maybe worth while to see if using CaO to offset the acetic acid effect of the TCLP is an acceptable approach (ie: chemically and/or regulatory).

JUSTIFICATION

Technical opinion only.

RECOMMENDATION

Suggest looking at CaO effects on TCLP results chemically and if it is a concern of the regulators.

WHC DISPOSITION

Assigned WHC Cog: Weingardt
Date Assigned: January 31, 1994
Reviewer Signature: [Signature]

Assigned Category: 5
Comment Status: Open
ESQ Review Number: N/A

Waste immobilization demonstration program will provide necessary guidance and will be included in SDRD future revision.

Final Disposition

A-E Lead Engineer: Chapin

Final Category: 5

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #: GENERAL
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: MCDANIEL
Rev Comment #: 56
Comment Category: 4
Sheet #: N/A

COMMENT

Looking at the Process Flow Diagrams for grout & PE, it is not clear what the rationale for the mixer sizes are. Is the size based on expected process containers to be filled per batch? Furthermore, I would strongly suggest that a 150-200 gallon tank be added so liquid admixtures can be added to grout mixtures as needed.

JUSTIFICATION

Technical opinion only, and some grout additives are in the form of liquids.

RECOMMENDATION

Suggest verifying if liquid admixtures need to be mixed in with the grout, if so, provide necessary equipment to deliver and blend the admixtures.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
Date Assigned: January 31, 1994
Reviewer Signature: *W. Weingardt*

Assigned Category: 4
Comment Status:
ESQ Review Number: N/A

I believe this capability is provided by the current design. As things evolve, the precise size and types of material handling of admixture feed systems will be firmly established. Right now, however, the pfd's show the capability to add liquid or dry materials to the grout mix tank.

Final Disposition

A-E Lead Engineer: Chapin/Voke

Final Category: 2/4

ROM Cost Impact:

Construction Package Number:

1) Rational for mixer sizes: basis for PE extruder is given in Vol. I, Section 7.2.7.3.2.d (fourth bullet). Basis for vibro-grout mixing tank is given in Vol. I, Section 5.8.3.4.

2) Capability to add liquid additives to grout: ACDR already shows such capability for agitated grout (see PFD H-2-140638). ACDR revised to show this capability for vibro-grout (revised PFD, Process Description, and Process Design Basis, as required). Details of liquid additive delivery systems will be worked out during Title design.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 7.2.5.3
Drawing #:
Zone Location:

Reviewer Identification: WESTCOTT
Rev Comment #: 57
Comment Category: 1
Sheet #:

COMMENT

Item # 7 on page 1-41: Add to the list of EPA regulation 40 CFR Part 265

JUSTIFICATION

The dryer will be permitted as a thermal treatment unit under 265 subpart P.

RECOMMENDATION

Add to the list of EPA regulations 40 CFR Part 265.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
Date Assigned: January 31, 1994
Reviewer Signature: _____

Assigned Category: 5
Comment Status:
ESQ Review Number:

It is the Westinghouse Project's position that the dryer will not need to be permitted as a thermal treatment unit. It is WHC's Action to resolve discrepancy and get regulatory buy-in to the permitting approach. Comment resolution does not impact facility design. No Action by A/E.

Final Disposition

A-E Lead Engineer: Sharpe/Nelson

Final Category: 5

ROM Cost Impact:

Construction Package Number:

See comment 58 for disposition.

Westcott

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 7.2.5.3
Drawing #:
Zone Location:

Reviewer Identification: WESTCOTT
Rev Comment #: 58
Comment Category: 1
Sheet #:

COMMENT

Item #3 of page 1-40: The dryer design specification must specify the regulatory requirements for it to be considered a sludge dryer per WAC 173-303.

JUSTIFICATION

The dryer design must comply with the requirements of sludge dryers per WAC 173-303-040, otherwise it could be permitted under more difficult standards such as an incinerator or industrial furnace.

RECOMMENDATION

Add to the "Heat Exchanger (Dryer)" bullet the designed heat rating will be less than 2,500 BTU/ lb. wet weight.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
Date Assigned: January 31, 1994
Reviewer Signature: _____

Assigned Category: 1
Comment Status:
ESQ Review Number:

Agree with comment in that dryer should meet the requirement to be exempted from incinerator standards. A/E will verify as part of comment disposition by providing calculations and assumptions that we are within this boundary. If we exceed this boundary, will have to reevaluate design.

Final Disposition

A-E Lead Engineer: Sharpe/Nelson

Final Category: 1/5

ROM Cost Impact:

Construction Package Number:

It was confirmed that the dryer is within the rating boundary. An uncertainty has been added to the ACDR on this subject. WHC has action to provide interpretation of the regulations for sludge dryers.

J. Westcott

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 2.2.2.9
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: WESTCOTT
Rev Comment #: 59
Comment Category: 1
Sheet #: N/A

COMMENT

The statement reading: "Waste is reduced to less than 3mm in the crusher in order to meet TCLP requirements....." is very misleading. The TCLP test in-of-itself does not require that the waste material be < 3mm in size, maybe you get better test results if the waste particle size is such, but it is not mandated by the TCLP test procedures.

JUSTIFICATION

Not a regulatory requirement.

RECOMMENDATION

Revise text to state "in order to foster successful TCLP results".

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: January 31, 1994
Reviewer Signature: _____

Assigned Category: 1
Comment Status:
ESQ Review Number: N/A

Agree with comment, wording will be clarified to say that crusher is required to produce 3mm for extruder protection. And reference to size reduction to support TCLP testing will be deleted.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Revised sections 2.2.2.9 and 5.1.6 per WHC disposition.

OKay per telcon
w/ Westcott
5/20/94

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 2.2.2.10
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: WESTCOTT
Rev Comment #: 60
Comment Category: 1
Sheet #: N/A

COMMENT

Most ignitable, corrosive and reactive waste must be deactivated, and then it must be demonstrated the underlying hazardous constituents meet the F039 limits.

JUSTIFICATION

This is a fairly new regulatory requirement.

RECOMMENDATION

Add to the text to "deactivate and demonstrate the underlying hazardous constituents are less then the F039 limits.

WHC DISPOSITION

Assigned WHC Cog: PAULY Assigned Category: 3
Date Assigned: January 31, 1994 Comment Status: 0
Reviewer Signature: J. J. McIntosh ESQ Review Number: N/A

The text should be revised to say "For all wastes coded D001 (ignitable) or D002 (corrosive) which the generator has identified any underlying hazardous constituents as reasonably expected to be present (as documented by the generator on the LDR Notification form), it will be demonstrated that those underlying hazardous constituents meet the F039 limits prior to shipment of those wastes to disposal."

Final Disposition

A-E Lead Engineer: Nelson Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC disposition.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 7.2.6
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: WESTCOTT
Rev Comment #: 61
Comment Category: 4
Sheet #: N/A

COMMENT

Drums which contained acutely hazardous waste can be tripled rinsed and disposed of as LLW.

JUSTIFICATION

There are at least 12,000 drums (183H Basin Waste) of existing acutely hazardous waste which can not be compacted and disposed of as LLW upon emptying. A trade-off exists between the liquid waste generation from triple rinsing and reduced MLLW disposal (ie: shred grout).

RECOMMENDATION

Please perform a trade-off study between triple rinsing acutely hazardous waste drums and shred-grout MLLW disposal, then recommend an approach.

WHC DISPOSITION

Assigned WHC Cog: PAULY

Date Assigned: January 31, 1994

Reviewer Signature: [Signature]

Assigned Category: 5

Comment Status: 0

ESQ Review Number: N/A

It is most appropriate that the program office perform this evaluation and provide project personnel with the opportunity to review the study prior to its issuance. Any appropriate recommendations from the completed study could be incorporated into WRAP 2A in the form of design requirements at that time.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 5

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: GENERAL
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: WESTCOTT
Rev Comment #: 62
Comment Category: 4
Sheet #: N/A

COMMENT

WRAP-2A will be a hazardous waste generator (ie: decon wipes, floor sweeps equipment....ect). Will there be a need for hazardous waste storage areas at the Facility (ie: <90 storage pads)?

JUSTIFICATION

The facility will generate MLLW during decontaminating and maintenance activities. A generator must characterize & designate the waste before sending it to TSD storage for treatment. The accumulation & characterization will take some time, so accessing a <90 day storage pad is required.

RECOMMENDATION

Suggest having a <90 day pad for WRAP-2A and/or have a <90 day pad available in W-112; furthermore, the permitting of W-100 and W-112 needs to consider this issue of waste generation in a TSD.

WHC DISPOSITION

Assigned WHC Cog: Pauly
Date Assigned: January 31, 1994
Reviewer Signature: [Signature]

Assigned Category: 5
Comment Status:
ESQ Review Number: N/A

WHC will provide directions as part of the SDRD.

Final Disposition

A-E Lead Engineer: Chapin

Final Category: 5

ROM Cost Impact:

Construction Package Number:

WHC action. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 7.2.10.a
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: WESTCOTT
Rev Comment #: 63
Comment Category: 34
Sheet #: N/A

COMMENT

The sample must be maintained under lock & key or access control, and the samples for regulatory verifications must be refrigerated @ 4 degree C.

JUSTIFICATION

To comply with SW-846 sample protocol, these capabilities are required.

RECOMMENDATION

Please add these capabilities to the list here.

WHC DISPOSITION

Assigned WHC Cog: LECLAIR
Date Assigned: January 31, 1994
Reviewer Signature: _____

Assigned Category: 34
Comment Status: _____
ESQ Review Number: N/A

The capability to refrigerate samples at 40°F (4°C) was not included in the FDC but was added as a required capability in the SDRD (referenced in 7.2.10.3.b, 1-96). Per my conversation with A.J. Miskho, RCRA Support, the intent of the chain-of-custody requirements (SW-846, Vol. II, Chapter 9, *Sample Plan*) can be met using administrative control instituted through the use of laboratory procedures and protocols. We may want to use a paperless tracking system for the chain-of-custody process and this should be kept in mind as a comment applicable to the detailed design phase of this project. However, there are no specific design features required to implement the sample chain-of-custody requirements of SW-846.

*****AWAITING REVIEWER CONCURRENCE*****

Final Disposition

A-E Lead Engineer: Basu

Final Category: 34

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR. (Title II comment)

As discussed with Jeff Westcott this comment is too detailed for this phase of design and the comment category should be changed to a "4."

M.D. LeClair for J.L. Westcott per telecon 02/16/94

Concurrence with the revised comment category also received from Robert Voke, A-E Cog, via telecon 03/02/94.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: SPANHEIMER
Rev Comment #: 64
Comment Category: 1
Sheet #:

COMMENT

The ACDR does not indicate the safety class of any systems or equipment. The FDC paragraph 5.2.1 anticipated no safety class higher than 3. If there are safety class systems that should be noted; if there are no safety class systems anticipated that condition should be noted.

JUSTIFICATION

DOE 4700.1 Attachment V-9 indicates the CDR should include a requirement and assessment of Health and Safety.

RECOMMENDATION

Indicate whether any safety class systems or equipment are anticipated.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: January 31, 1994
Reviewer Signature: *Jack Lamberd*

Assigned Category: 1
Comment Status:
ESQ Review Number:

Agree, a statement that specifies there are no safety class systems within WRAP 2A will be added.

Final Disposition

A-E Lead Engineer: Basu

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Revised section 1.1.9 and 2.1.5 to clarify.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 1
 Section Paragraph #:
 Drawing #:
 Zone Location:

Reviewer Identification: SPANHEIMER
 Rev Comment #: 65
 Comment Category: 5
 Sheet #:

COMMENT

The SDRD has been revised and is in review. There were numerous cases of paragraphs being renumbered. The ACDR references do not agree with the corresponding paragraph numbers of the revised SDRD.

JUSTIFICATION

Requirements should be carefully cross referenced between the FDC, SDRD, and ACDR.

RECOMMENDATION

Assure the ACDR is revised to provide accurate paragraph references when the SDRD revision is approved.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Assigned Category: 2/5

Date Assigned: January 31, 1994

Comment Status:

Reviewer Signature: *Joseph M. Lee*

ESQ Review Number:

Paragraph 7.1.3 will be further clarified to make this point. WHC will issue revision 0 of SDRD for use in future tilt design activities.

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Revised section 7.1.3 to clarify. ACDR will not be revised to correct paragraph references when SDRD is issued as Rev.0

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: Section 2.1, ¶4
Drawing #: na
Zone Location: na

Reviewer Identification: WEINGARDT
Rev Comment #: 66
Comment Category: 3
Sheet #: na

COMMENT

Statement is confusing - sounds like only campaigned waste goes through W-112 and that some waste may not go through 112.

JUSTIFICATION

Need to clarify somewhere in the report which wastes are coming through W-112 for process clarification and design analysis.

RECOMMENDATION

Need to better word engineer this statement to clarify its meaning.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: January 31, 1994
Reviewer Signature: [Signature]

Assigned Category: 3
Comment Status:
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text to clarify.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: I
 Section Paragraph #: Figure 2.2
 Drawing #: H-2-140598
 Zone Location: na

Reviewer Identification: WEINGARDT
 Rev Comment #: 67
 Comment Category: 3
 Sheet #: 1

COMMENT

Block Flow Diagram Overall Facility has some omissions. 1) Does not show particulate stream from the Box Breakdown Enclosure, 2) Does not show particulate stream from debris processing, 3) Does not show water being added to the grout immobilization.

JUSTIFICATION

These functions are provided by the design apparent from other drawings and should be consistent here.

RECOMMENDATION

Include these items on the drawing and in the figure.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
 Date Assigned: January 31, 1994
 Reviewer Signature: [Signature]

Assigned Category: 3
 Comment Status:
 ESQ Review Number:

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Comment 1: Disagree. See stream 91
 Comment 2: Disagree. See stream 66
 Comment 3: Agree. Drawing revised to add water.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR

Volume #: I

Section Paragraph #: Section 2.2.2 ¶7

Drawing #: na

Zone Location: na

Reviewer Identification: WEINGARDT

Rev Comment #: 68

Comment Category: 3

Sheet #: na

COMMENT

Paragraph mentions the capability to route material from Box Breakdown to Debris Treatment and to Vibro-Grout but does not mention the capability to route material to the particulate processing. How is this accomplished? Is the material intended to be routed back to W-112?

JUSTIFICATION

Much of the waste being sent to Box Breakdown may be soils and other particulate (absorbants). This will need to be sampled and treated in the particulate line.

RECOMMENDATION

Add this capability and a description of the operation.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Date Assigned: January 31, 1994

Reviewer Signature: [Signature]

Assigned Category: 3

Comment Status:

ESQ Review Number:

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text to clarify.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR Reviewer Identification: WEINGARDT
 Volume #: I Rev Comment #: 69
 Section Paragraph #: Section 2.2.2 ¶9 and elsewhere Comment Category: 1
 Drawing #: _____ Sheet #: _____
 Zone Location: _____

COMMENT

The paragraph states that waste needs to be size reduced to 3 mm in order to pass TCLP. I do not agree. It is stated that it is a WHC/DOE requirement under "Product Specification" that the particulate/sludge needs to be size reduced to 3 mm. This is not accurate, ie is not a WHC/DOE requirement.
section 7.2.5.3.2 e

JUSTIFICATION

This is not commonly accepted assumption for TCLP, and the technical basis is not available to support this assumption. Is not a FDC or SDRD requirement. Therefor is in conflict with requirements.

RECOMMENDATION

Delete mention of this perceived requirement. Refer to SDRD for current size requirement for grout stream (1/2 inch). Provide solid technical basis for the need to go below this size, or delete the requirement and justify or change process design.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD Assigned Category: 1
 Date Assigned: January 31, 1994 Comment Status: Closed

Comment closed. This is a duplicate of comment #59.

Reviewer Signature: ESQ Review Number: _____

Final Disposition

A-E Lead Engineer: Basu Final Category: N/A

ROM Cost Impact:

Construction Package Number:

This is a closed comment. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR Reviewer Identification: WEINGARDT
Volume #: I Rev Comment #: 70
Section Paragraph #: Section 2.2.2 ¶11B and elsewhere Comment Category: 3
Drawing #: _____ Sheet #: _____
Zone Location: _____

COMMENT

I do not think that "slurry" is the appropriate word choice and may, in fact, not be what we do.

JUSTIFICATION

"Slurry" generally implies low solids content mixture and may give the wrong impression of what we truly intend to do here.

RECOMMENDATION

Recommend that we say that the primary means of processing scheme would be to first mix waste and water to ensure saturation of the waste and fluidity of the materials, but that this does not preclude other operating schemes.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD Assigned Category: 3
Date Assigned: January 31, 1994 Comment Status: _____
Reviewer Signature: _____ ESQ Review Number: _____

Final Disposition

A-E Lead Engineer: Basu Final Category: 3

ROM Cost Impact:

Construction Package Number:

Disagree. There are no other operating schemes. No matter what, it is a slurry.

Disagree
[Signature]

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: I
 Section Paragraph #: Section 3.2 ¶4
 Drawing #:
 Zone Location:

Reviewer Identification: WEINGARDT
 Rev Comment #: 71
 Comment Category: 2
 Sheet #:

COMMENT

This paragraph indicates that "both" the single immobilization study and the VE session recommend out of drum mixing for grout. This is not true. This comment also applies to the "White Paper" Section of the ACDR. A paper on the reason to go to batch mixing and why the design is in conflict with the study is missing from that section of the report. Please provide.
3.2 ¶6.b Better explanation on the choice to go with "batch" mixing should be explained to better reconcile with the Mixing study discussed in this section.

JUSTIFICATION

The decision to go to out of drum mixing for grout was due to the VE study and follow on analysis to confirm the decision.

RECOMMENDATION

Change the statement to more accurately reflect the situation.
 Prepare a white paper on the decision to go to out of drum mixing and in particular "batch" mixing.

WHC DISPOSITION

Assigned WHC Cog: PAULY
 Date Assigned: January 31, 1994
 Reviewer Signature: *PAULY*

Assigned Category: 2
 Comment Status: 0
 ESQ Review Number:

UE&C is requested to revise section 3.2.4 to indicate that the Single Immobilization study was based on in-drum mixing for the particulate grout line, and that the decision to change to out-of-drum mixing was made during the Value Engineering assessment, after the Single Immobilization study was completed. UE&C agreed in December 1993 to include in the ACDR a white paper documenting how the change to out-of-drum mixing was made; this white paper was apparently inadvertently left out of the ACDR. UE&C to provide subject white paper.

Final Disposition

A-E Lead Engineer: Voke

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree. Revised section 3.2.4 and added a white paper in Volume III, Appendix C.

Kent Weingardt *4/22/94*

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 3.3.3.3 ¶3
Drawing #:
Zone Location:

Reviewer Identification: WEINGARDT
Rev Comment #: 72
Comment Category: 3
Sheet #:

COMMENT

"It seems unlikely that the PE encapsulated waste need to considered as a point of origin for a fire. The PE encapsulated waste does need to be considered as a fuel sources for a fire which exposes the drums." This ¶ needs some word engineering. I do not totally grasp what it is trying to say.

JUSTIFICATION

RECOMMENDATION

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: January 31, 1994
Reviewer Signature:

Assigned Category: 3
Comment Status:
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised section 3.3.3.3.3 to clarify.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 3.3.3.3 general
Drawing #:
Zone Location:

Reviewer Identification: WEINGARDT
Rev Comment #: 73
Comment Category: 3
Sheet #:

COMMENT

For purposes of fire analysis some of the other chemicals that are planned for use in the facility should be mentioned - Calcium Oxide, Acids, Basis, Zinc Stearate??, Sodium Sulfide?? (Delvo Set retarders).

JUSTIFICATION

This section of the report only mentioned binder materials and decontamination agents. May need to be more thorough.

RECOMMENDATION

Make sure all potential chemicals are addressed.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: January 31, 1994
Reviewer Signature:

Assigned Category: 3
Comment Status:
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Disagree. This is only a summary section. See FHA for details.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR Reviewer Identification: WEINGARDT
Volume #: I Rev Comment #: 74
Section Paragraph #: Section 4.5 ¶c pg I-20 Comment Category: 1
Drawing #: _____ Sheet #: _____
Zone Location: _____

COMMENT

The design (as reflected on the drawings and this ¶ description) screens out all particulate below 60 mm for debris macro-encapsulation. The debris rule allows all material to be treated by debris standards as long as at least >50% is larger than 60 mm. Does this screening allow taking "full advantage of the Debris Rule" as required by the FDC?

JUSTIFICATION

The debris rule does not require screening all particulate. FDC requires taking full advantage of the Debris Rule.

RECOMMENDATION

BNFL has indicated that particles much smaller than 60 mm could be encapsulated by vibro in-filling. The design may want to include a smaller mesh size and some means of inspecting the waste (to determine the greater than 50% requirement) prior to screening. Potentially using a clam-shell trough above the screen that would allow diversion around the screen if inspection allowed.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD Assigned Category: 4
Date Assigned: January 31, 1994 Comment Status: _____
Reviewer Signature: [Signature] ESQ Review Number: _____

Agree with comment, The action to provide solution will be included in MFD preparation to support the Task V work at UE&C.

Final Disposition

A-E Lead Engineer: Sharpe Final Category: 4

ROM Cost Impact: _____

Construction Package Number: _____

Agree with WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: <u>WRAP 2A ACDR</u>	Reviewer Identification: <u>WEINGARDT</u>
Volume #: <u>I</u>	Rev Comment #: <u>75</u>
Section Paragraph #: <u>Section 4.5 1d pg I-20</u>	Comment Category: <u>2</u>
Drawing #:	Sheet #:
Zone Location:	

COMMENT

It is not evident from the design media if the screen after the crusher is vibratory. It probably should be. Also, do not completely understand what is done with the screened material - would make sense to have some kind of a hold up or catch bin for this small amount of material rather than a direct shot to the debris line.

JUSTIFICATION

Without vibration (or some other motive force) the screen will tend to get clogged especially with wet stuff and at a 3 mm size - and therefore will require a lot of maintenance. It is also an SDRD requirement in the new version. Need to reconcile.

RECOMMENDATION

Utilize a vibrating screen or some other method of keeping the screen unclogged. Also, include some sort of a catch bin for small amount of screened solids.

WHC DISPOSITION

Assigned WHC Cog: <u>WEINGARDT</u>	Assigned Category: <u>2</u>
Date Assigned: <u>January 31, 1994</u>	Comment Status:
Reviewer Signature: <u>[Signature]</u>	ESQ Review Number:

Agree with reference comment #101 primarily when dispositioning (and 135).

Final Disposition

A-E Lead Engineer: <u>Sharpe</u>	Final Category: <u>2</u>
----------------------------------	--------------------------

ROM Cost Impact:

Construction Package Number:

Agree. Revised text and drawing to indicate that the screen is vibratory. Also revised drawing so that oversize items are not fed directly (are recycled) to the debris line after crushing.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 4.5 ¶5g pg 1-22
Drawing #:
Zone Location:

Reviewer Identification: WEINGARDT
Rev Comment #: 76
Comment Category: 3
Sheet #:

COMMENT

This ¶ states that "the agitated grout line consists of a waste receipt hopper (connected to the particulate/sludge dryer discharge by means of a stainless steel duct) and two batch mixing vessels. The pfd's and other equipment layouts do not indicate that this is true but that there is no connection between the dryer and batch tanks. Comment: please clarify.

JUSTIFICATION

Obvious

RECOMMENDATION

Clarify discrepancy.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: January 31, 1994
Reviewer Signature:

Assigned Category: 3
Comment Status:
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text to clarify.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR Reviewer Identification: WEINGARDT
Volume #: I Rev Comment #: 77
Section Paragraph #: Section 4.5 15h pg I-22 Comment Category: 3
Drawing #: _____ Sheet #: _____
Zone Location: _____

COMMENT

Paragraph states that chemicals (in addition to PE) are added directly to the extruder. This is not what the design media indicates.

JUSTIFICATION

RECOMMENDATION

Please Clarify discrepancy.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD Assigned Category: 3
Date Assigned: January 31, 1994 Comment Status: _____
Reviewer Signature: ESQ Review Number: _____

Final Disposition

A-E Lead Engineer: Basu Final Category: 3

ROM Cost Impact: _____

Construction Package Number: _____

Disagree. Stated paragraph does not state that chemicals are directly added to the extruder.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 5.2.2 ¶b pg I-5
Drawing #:
Zone Location:

Reviewer Identification: WEINGARDT
Rev Comment #: 78
Comment Category: 4
Sheet #:

COMMENT

Insufficient detail is provided on the handling of empty drums from Box Breakdown. How do empty drums (55 gallon in ovps) leave the enclosure? How are they transported to the Compactor (if they indeed are)? Do they return to W-112? Are they loaded into overpacks? Report states that overpacks are shredded - where? If in Box BKDWN, why isn't all debris from BB shredded there?

JUSTIFICATION

This information is key and the function must be provided by the design in an efficient manner, unobtrusive to other process operations.

RECOMMENDATION

Provide the detail (in verbiage) in the current acdr report and design detail in later phases of design.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: January 31, 1994
Reviewer Signature: [Signature]

Assigned Category: 4
Comment Status: Open *closed*
ESQ Review Number:

Cog Engineer agrees with the comment and the Category.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised section 5.3.2.4 and H-2-140628 Sht.4 to indicate that no intact drums, boxes, or used product containers will leave the box breakdown area. These containers will be size reduced as a part of the box breakdown operation.

Kent Weingardt 3/2/94

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 1
 Section Paragraph #: Section 5.2.5
 Drawing #:
 Zone Location:

Reviewer Identification: WEINGARDT
 Rev Comment #: 79
 Comment Category: 1
 Sheet #:

COMMENT

The capability must be provided to perform penetrometer testing on curing containers as they are curing. It is preferable that this function be performed at any time during the cure period, and without intensive operator contact (ie manually opening a drum and on-mask would be unacceptable). These capabilities are not apparently provided by the design.

JUSTIFICATION

SDRD requirement for penetrometer testing in cure store "at any time during curing" immobilization section 3.3.1.t and 3.3.2.j.
 FDC requirement for penetrometer testing somewhere in the plant.
 This will be a key process control point for allowing product to be shipped, if results are negative the product should not be shipped.

RECOMMENDATION

Add the capability to remotely (or semi-remotely) perform penetrometer testing on the curing product at any time during the 24 hour period and design so that this does not only occur on the way out of the facility.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
 Date Assigned: January 31, 1994
 Reviewer Signature: [Signature] 3/2/94

Assigned Category: 4
 Comment Status: Open
 ESQ Review Number:

closed 6/2/94
cat 4
per discuss w/weingard

Cog Engineer agrees that the requirement shows up in Rev. B of the SDRD and the requirement should be incorporated in the WRAP 2A design. Since Revision "B" has not been formally issued, the Category for this comment should be changed to Category 4. K. Weingardt agreed to the Category change.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: Section 5.5.2
Drawing #:
Zone Location:

Reviewer Identification: WEINGARDT
Rev Comment #: 80
Comment Category: 2
Sheet #:

COMMENT

It is not clear from the design how particulate material is transferred from the sort table to the rotating screen and how screened material from the rotating screen is transferred to the debris processing line. However, it appears that this whole set-up is rather complicated and cumbersome and could be improved.

JUSTIFICATION

Rotating screen seems large and cumbersome and does not guarantee against clogging. Methods for transporting materials are not apparent.

RECOMMENDATION

Suggest using a vibrating screen as the sort table. Large items can be removed from the screen and placed in a bin for future debris treatment or load-out. (By-the-way is loadout for non-compliant items provided from the third floor enclosure?) The screen could be operated with a water wash to eliminate clogging - this would not be a problem for grout line and excess water could be dried in the PE line dryer.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
Date Assigned: January 31, 1994
Reviewer Signature: [Signature]

Assigned Category: 2
Comment Status:
ESQ Review Number:

Incorporate comment as recommended.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree. Revised text as recommended.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: Section 5.5.4
Drawing #:
Zone Location:

Reviewer Identification: WEINGARDT
Rev Comment #: 81
Comment Category: 3
Sheet #:

COMMENT

This write up is not clear that only waste going to PE is going to the dryer. If this is in fact the case please clarify. The design indicates that waste from the dryer cannot be routed to the grout system. This may be desirable, but in any case needs to be clarified here.

JUSTIFICATION

obvious

RECOMMENDATION

Clarify write up to reflect design media.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
Date Assigned: January 31, 1994
Reviewer Signature:

Assigned Category: 3
Comment Status:
ESQ Review Number:

Incorporate comment.

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text to clarify.

**WRAP 2A ACDR Review
Design Review Comment Submittal**

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: Section 5.7.3 ¶4
Drawing #:
Zone Location:

Reviewer Identification: WEINGARDT
Rev Comment #: 82
Comment Category: 4
Sheet #:

COMMENT

Need more detail on how PE containers will be filled in order to "minimize the interruption of flow" and prevent drips and spills.

JUSTIFICATION

This is a key design feature that will impact process design and process rates. Needs to be addressed early.

RECOMMENDATION

If concepts are in place, they should be presented (even if cursorily) in the ACDR. Tasks should be undertaken to further define this as part of MFD development.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
Date Assigned: January 31, 1994
Reviewer Signature: *[Signature]*

Assigned Category: 4
Comment Status:
ESQ Review Number:

Incorporate Comment as recommended.

Final Disposition

A-E Lead Engineer: Chapin

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Concepts not in place for ACDR. Details will be addressed in Title design.
No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR

Reviewer Identification: WEINGARDT

Volume #: I

Rev Comment #: 83

Section Paragraph #: Section 5.7.3 ¶6 and 8

Comment Category: 3

Drawing #:

Sheet #:

Zone Location:

COMMENT

After reading these paragraphs it is not apparent what the confinement philosophy is for the PE and extruder system. What is the "extruder radioactivity confinement enclosure". ¶8 indicates it includes the extruder, hopper, ¶6 sounds more like just the box filling area. How are manual decon methods used in these areas (extruder/hopper) and in the fill area (glove ports/manual access).

JUSTIFICATION

Design is not clear.

RECOMMENDATION

These concepts need to be clarified and more fully developed.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT

Assigned Category: 3

Date Assigned: January 31, 1994

Comment Status:

Reviewer Signature:

ESQ Review Number:

Incorporate comment as recommended.

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Radioactivity confinement enclosure cannot be totally defined in words. See corresponding PFD. Revised section 5.7.3.6 to clarify that decon solution is piped to the box filling area of the radioactivity confinement.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: Section 5.8.3 ¶3
Drawing #:
Zone Location:

Reviewer Identification: WEINGARDT
Rev Comment #: 84
Comment Category: 2
Sheet #:

COMMENT

Use vibrating table as opposed to container gripping vertical vibrating device.

JUSTIFICATION

Seems more difficult to control placement of box within a gripping device and be able to support the weight of a 10000 lb box while vibrating it. A table seems easier.

RECOMMENDATION

Incorporate change/ assess impacts in Title 1 MFD development.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
Date Assigned: January 31, 1994
Reviewer Signature: *[Signature]*

Assigned Category: 2
Comment Status:
ESQ Review Number:

Incorporate Comment as recommended.

Final Disposition

A-E Lead Engineer: Voke/Dutton

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree. Revised text to clarify the use of a vibrating table.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: Section 5.8.4
Drawing #:
Zone Location:

Reviewer Identification: WEINGARDT
Rev Comment #: 85
Comment Category: 3
Sheet #:

COMMENT

¶5 suggests that material is recirculated through a pump but this is not depicted on the pfd.

JUSTIFICATION

consistency

RECOMMENDATION

Make the design media or write up consistent.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
Date Assigned: January 31, 1994
Reviewer Signature:

Assigned Category: 3
Comment Status:
ESQ Review Number:

Incorporate comment as recommended.

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text and PFD to be consistent.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: Section 5.11.2
Drawing #:
Zone Location:

Reviewer Identification: WEINGARDT
Rev Comment #: 86
Comment Category: 2
Sheet #:

COMMENT

Suggest incorporating the capability to pump from the Treated Waste Water Tank back to the Active Waste Collection Tank.

JUSTIFICATION

This water may be determined to be unfit for use in the process at that given time (ie too much solids precipitate on ph adjustment) and needs to be routed back for filtration.

RECOMMENDATION

Add pump or diversion off of existing pump back to collection tank.

WHC DISPOSITION

Assigned WHC Cog: PAULY
Date Assigned: January 31, 1994
Reviewer Signature: *PAULY*

Assigned Category: 2
Comment Status: 0
ESQ Review Number:

UE&C is requested to show recycle line from Treated Active Waste Tank back to Active Waste Collection Tank(s) on overall plant water balance block flow diagram H-2-140657. See comments #208, 209 for related issues.

Final Disposition

A-E Lead Engineer: Chapin

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. ACDR revised (BFD, process description, and process design basis(as required.

Karl Weingardt 9/22/94

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 1
 Section Paragraph #: Section 5.11.3
 Drawing #:
 Zone Location:

Reviewer Identification: WEINGARDT
 Rev Comment #: 87
 Comment Category: 1
 Sheet #:

COMMENT

It is not clear from the discussion here if grout washings from the vibro make-up tank are routed to the non-active waste water system. A concept needs to be in place for how to handle these washings. Not enough detail is provided by the design package to evaluate. No line is provided from the tank to the non-active waste water system and this must be corrected.

JUSTIFICATION

Clean-up and turn down volumes of active grout will have key impacts to the design of the plant and need to be addressed. It is an SDRD requirement that the capability be provided to flush to the non-active waste water system.

RECOMMENDATION

Suggest utilizing a set retarder (DELVO tm) in the make-up tank to reduce turn down volume. Active washings will still- on occasion- need to be generated. Need to present concept of how to deal with these should be presented in the ACDR.

WHC DISPOSITION

Assigned WHC Cog: PAULY
 Date Assigned: January 31, 1994
 Reviewer Signature:

Assigned Category: 1
 Comment Status:
 ESQ Review Number:

UE&C is requested to provide more detailed concept for handling washings from active & inactive grout mix tanks. See comments #46, #93, #87, #108, and #222 for related issues.

Final Disposition

A-E Lead Engineer: Voke

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. The proposed method for handling inactive grout washings is different from that proposed for active grout washings (comments 46 and 93). The in active grout washings will be treated with an inhibitor and routed to a settling tank. After the solids have settled, the supernate shall be removed and transferred to the inactive effluent system. The solids shall then be dumped into a container for disposal at a conventional landfill. Revised section 5.8.3.8 to clarify.

4/22/94

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: Section 7.2.5.3.4.b
Drawing #: H-2-140628
Zone Location:

Reviewer Identification: WEINGARDT
Rev Comment #: 88
Comment Category: 1
Sheet #: 1/2/3

COMMENT

The requirement states that liquid should be drained from drum opening areas but no line or drain is shown for this function on the PFDs. (Also, may consider this capability from drum smashing operations - remember they may have a residual content that may be forced out upon crushing)

JUSTIFICATION

SDRD requirement.

RECOMMENDATION

Add the capability on the PFD's and address the need to do this in the drum smashing operations.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
Date Assigned: January 31, 1994
Reviewer Signature: _____

Assigned Category: 1
Comment Status:
ESQ Review Number:

Incorporate comment as recommended.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 4/5

ROM Cost Impact:

Construction Package Number:

This level of detail will be shown on MFDs during Title I design. No change to ACDR. WHC has action to define preferred method of draining liquids from drum opening areas in the SDRD.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR

Volume #: I

Section Paragraph #: Section 7 page 41 15

Drawing #:

Zone Location:

Reviewer Identification: WEINGARDT

Rev Comment #: 89

Comment Category: 3

Sheet #:

COMMENT

States that no utilities or chemicals are required for the part/sludge processing system. What about CaO for the dryer and a heat source for the dryer?

JUSTIFICATION

Obvious.

RECOMMENDATION

Please incorporate into document.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Date Assigned: January 31 1994

Reviewer Signature:

Assigned Category: 3

Comment Status:

ESQ Review Number:

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Revised text to show utility requirements.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: Section 8
Drawing #:
Zone Location:

Reviewer Identification: WEINGARDT
Rev Comment #: 90
Comment Category: 1/5
Sheet #:

COMMENT

The ability to treat soft waste via vibro infill techniques is questionable from a technical standpoint.
Alternate treatment methodology (including macroencapsulating a "cluster" of soft waste) is questionable from a regulatory perspective.

JUSTIFICATION

Test work conducted by WHC has not been successful in demonstrating vibro infilling for soft waste. BNFL experience has suggested that it is feasible.

RECOMMENDATION

Include as uncertainty in this section as part of ACDR. Develop alternative means of treating this waste (or making the proposed technology work) as part of MFD development. WHC action to get regulatory interpretation.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: January 31, 1994
Reviewer Signature:

Assigned Category: 1/4/5
Comment Status:
ESQ Review Number:

Agree with comment, add an uncertainty about soft debris and state that WID will provide test results.

Cat 1: Issue will stated as uncertainty in ACDR

Cat 4: UE&C will develop design based on input from WHC as part of Cat 5 activity

Cat 5: WHC obtain regulatory analysis guidance and incorporate into revision to SDRD.

Final Disposition

A-E Lead Engineer: Voke

Final Category: 1/4/5

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. Vibrogrouting of soft debris is added as an uncertainty in section 8.3. It should be noted, however, that this is a proven technology (BNF plc, UK). Grout formulations and the techniques required to vibro in-fill soft debris shall be developed during Title design. WHC has action to revise SDRD.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: Section 8
Drawing #:
Zone Location:

Reviewer Identification: WEINGARDT
Rev Comment #: 91
Comment Category: 1/2/4
Sheet #:

COMMENT

Method for emptying drums is an uncertainty. Just turning a drum upside down is not likely to accomplish emptying drums of sticky particulate and sludge to less than 1% original content. Also the schematics provided do not give high confidence that this will be a very "clean" or controllable operation. It seems there is much to be gained by looking at this operation closely.

JUSTIFICATION

It is a requirement to empty the drums to less than 1% of their original volume. Waste material is sticky and sometimes heavy and does not seem smooth to be just turning drums upside down and hoping for a soft landing.

RECOMMENDATION

Recommend investigating drum tipper/crusher for emptying operation wherein the drum is emptied as it is being crushed (ie waste is "extruded" from the drum while being crushed) or some means of "guts/feathers/and all" approach for the waste and drum. Note: the drum tipper crusher is used in commercial recycling facilities.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: January 31, 1994
Reviewer Signature:

Assigned Category: 2
Comment Status: Open
ESQ Review Number:

Cat 4 *closed*

COG Engineer agrees that currently selected dump system will have operational problems. UE&C should conduct the suggested examination prior to start of Title I Design. The ultimate selection of "dumper" and resulting dump activity could have major implications for facility/equipment layouts.

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 4

ROM Cost Impact:

Construction Package Number:

This will be evaluated further in Title I design. No change to ACDR.

**WRAP 2A ACDR Review
Design Review Comment Submittal**

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #:
Drawing #: H-2-140628 / 140632
Zone Location:

Reviewer Identification: WEINGARDT
Rev Comment #: 92
Comment Category: 1
Sheet #: Sheet 1 and Sheet 1

COMMENT

A major piece of process equipment (a bucket elevator) shows up on the section drawing but not on the PFD and also not in the equipment spec sheets. What is the need for this piece of equipment? How does it work? How can I evaluate it without the needed information?

JUSTIFICATION

Process equipment (especially major equipment) should show up on the pfd and have an equipment data sheet. This seems like a complicated operation and I do not fully grasp the advantage or the driving factors for including it.

RECOMMENDATION

1. Include all major process equipment and transport devices on the pfd and include equipment data sheets - also describe in the process description section of the document how it will function as part of the system.
2. Suggest eliminate using the bucket elevator and the feed hopper for the grout system and feed directly to the batch mix tank.

WHC DISPOSITION

Assigned WHC Cog: Weingardt
Date Assigned: January 31, 1994
Reviewer Signature:

Assigned Category: 1/2
Comment Status:
ESQ Review Number:

1. Incorporate part 1 of the recommendation as a category 1 comment.
2. Evaluate part 2 of the recommendation as a change to MFDs and further layout work (category 2 comment)

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree with Part 1 comment disposition. However, the design of the sludge/particulate process has undergone significant change due to ACDR review comments. The new arrangement uses a screw conveyor instead of a bucket elevator and is not considered a major piece of equipment or transport device. The final decision for this transportation device will be depicted on the MFDs and there is no need to show this on the PFD. Disagree with Part 2 comment disposition in as much as the feed hopper must remain upstream of the batch mix tank because a +/- 2% accuracy is required by the SDRD on feeding to the mixing tank, and we need to separate the pre-treatment of the waste before the start of the mixing operation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #:
Drawing #: H-2-140637
Zone Location:

Reviewer Identification: WEINGARDT
Rev Comment #: 93
Comment Category: 1
Sheet #: 1

COMMENT

The particulate/sludge grout batch mixing tank does not have the capability, as shown on the pfd, to be flushed to the active water tank. This is a mistake and the capability should be provided. The scheme for handling grout washings by dumping to a box is unacceptable and meets with a lot of skepticism from a technical perspective. A new scheme needs to be developed.

JUSTIFICATION

SDRD requires that the capability to flush the batch tanks to the active waste tank be provided. Not only for grout but what about flushing unit operations prior to the batch tank - all these units are routed to the batch tank and do not have separate lines for flushing. It would be wise to just use the batch tank for this purpose. The proposed scheme, is questionable from waste form qualification and technical perspectives (eg. there is no way to completely fill a box with this method - interface detection, etc.)

RECOMMENDATION

Include flushing capability on the grout batch tank in the ACDR. Develop alternate scheme for handling grout washings in MFD. Suggest maximum reuse directly in batch and reusing treated wash water for cleaning. Also, using set retarder and activator system (DELVO) and collection and recycle system for concentrating and "reworking" grout solids. Some technical information has been given to design cogs.

WHC DISPOSITION

Assigned WHC Cog: Weingardt Assigned Category: 1
Date Assigned: January 31, 1994 Comment Status:
Reviewer Signature: [Signature] ESQ Review Number:

Incorporate recommendation (route to active waste tank) and include revised scheme for handling grout solids.

Final Disposition

A-E Lead Engineer: Voke

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Revised drawing to add flush line to the batch tank, and an alternate scheme for handling the active grout washings which uses set retarders and activators, and recycles grout solids through a holding tank. The recycled washings are treated as a separate batch. Also revised section 5.8.4.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #:
Drawing #: H-2-140637
Zone Location:

Reviewer Identification: WEINGARDT
Rev Comment #: 94
Comment Category: 1
Sheet #: 1

COMMENT

The Vibro-Grout Make Up Tank should have the capability to add small quantities of chemicals (dry and/or aqueous) which would include liquid set retarders/activators and smaller quantities of routine materials (opc, fly ash, etc).

JUSTIFICATION

SDRD requirement. Justified by clean-up or preservation of grout solids and addition of small quantities of material that would not require bulk storage.

RECOMMENDATION

Include this capability in the ACDR flow sheets.

WHC DISPOSITION

Assigned WHC Cog: Weingardt
Date Assigned: January 31, 1994
Reviewer Signature: [Signature]

Assigned Category: 1
Comment Status:
ESQ Review Number:

Include this capability in the ACDR flow sheets.

Final Disposition

A-E Lead Engineer: Voke

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Revised drawing per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #:
 Section Paragraph #:
 Drawing #: H-2-140638
 Zone Location:

Reviewer Identification: WEINGARDT
 Rev Comment #: 95
 Comment Category: 1
 Sheet #: 1

COMMENT

The design should include a hard piped "emergency dump container" for the two batch tanks for off normal situations when filling containers by the normal route is not feasible.

JUSTIFICATION

SDRD requirement. Provides contingency for off normal situations that would propose severe consequences for the continued operation of the equipment in a normal fashion.

RECOMMENDATION

Include this capability in the design. Show on pfd.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
 Date Assigned: January 31, 1994
 Reviewer Signature: *[Signature]*

Assigned Category: 2
 Comment Status: Open
 ESQ Review Number:

Incorporate comment as suggested.

Final Disposition

A-E Lead Engineer: Voke

Final Category: 2/4

ROM Cost Impact:

Construction Package Number:

Disagree. Addition of an emergency dump route is not the preferred solution to this problem. The piping, during Title design, shall be configured to permit quick changeout for blockage situations, and it will be possible to add inhibitor to the tank to prevent grout setting. Added sections 5.8.3.9 and 5.8.4.10 to clarify.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #:
Section Paragraph #:
Drawing #: H-2-140637
Zone Location:

Reviewer Identification: WEINGARDT
Rev Comment #: 96
Comment Category: 1
Sheet #: 1

COMMENT

The capability to route mixture (paste/waste-wastewater) from the agitated-grout make-up tank to the vibratory station, or, simply the capability to infill debris with agitated-grout mixture (ie vibratory capability on agitated grout fill station) should be provided.

JUSTIFICATION

SDRD requirement. There is a potential to achieve great savings on throughput and material usage (ultimately waste loading) to be able to vibro encapsulate with particulate waste or in the very least with active waste water grout. Although this is not proven from a regulatory perspective, it seems feasible especially with the batch mixing concept where TCLP samples are taken from the tank and not the final waste form. The capability should be provided now at an early design stage - it will be costly later and difficult to prove savings.

RECOMMENDATION

Recommend adding the capability to vibro-infill debris waste with paste prepared in the active batch tanks with active waste/waste water.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
Date Assigned: January 31, 1994
Reviewer Signature:

Assigned Category: 2
Comment Status:
ESQ Review Number:

Incorporate comment as suggested.

Final Disposition

A-E Lead Engineer: Voke

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree. Added section 5.8.3.10 and revised drawing to indicate ability to vibro-infill debris waste with paste prepared in the active batch tanks by adding a vibrating table at the sludge/particulate grout filling station.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #:
 Section Paragraph #:
 Drawing #: H-2-140637
 Zone Location:

Reviewer Identification: WEINGARDT
 Rev Comment #: 97
 Comment Category: 2/4
 Sheet #:

COMMENT

It is not clear what the basis is for the sizing of the vibro-grout make up tank. 80 ft³ seems large upon initial inspection. What is the turn down rate if this is sized (clearly) for filling more than one Box?

JUSTIFICATION

SDRD has specific requirements for sizing the batch tank. An improved basis for the sizing will certainly be considered for revising those requirements. This has real ramifications for the design of the plant and waste handling system. Must understand if smaller (fractional sized) batches could be made up than the maximum size of the tank.

RECOMMENDATION

Recommend that the design provide a basis for the size tank selected or demonstrate (by means of complete process description) how the size meets the requirements in the SDRD.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
 Date Assigned: January 31, 1994
 Reviewer Signature:

Assigned Category: 2
 Comment Status:
 ESQ Review Number:

Basis for sizing this tank should be provided and agreed to in the ACDR.

Final Disposition

A-E Lead Engineer: Voke

Final Category: 2

ROM Cost Impact:

Construction Package Number:

The tank is sized so that it gives the operator the ability to infill a box containing a single large item of small volume, if desired. The box volume is 64 cft and a contingency of 25% has been added in accordance with the SDRD requirements (64x1.25=80). This calculation does not take into account the volume of the item to be immobilized, but neither does it take into account the hold up of grout in the tank and pipework. It is assumed these two volumes will essentially cancel each other out. An advantage of sizing this vessel at 80 cft is that a common tank design is possible for the two sludge/particulate tanks and the vibro-grout-tank. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #:
Section Paragraph #:
Drawing #: H-2-140628
Zone Location:

Reviewer Identification: WEINGARDT
Rev Comment #: 98
Comment Category: 2
Sheet #: 1

COMMENT

Size of Dryer appears to be to small. Would be advantageous to have the dryer the same size as the batch amount of feed needed to fill a box with PE/Waste for smoother operations with (potentially) greater throughput. The other option is using a continuous dryer which might be more restrictive and even larger. Need to understand the basis for sizing the dryer as well as the basis for this particular equipment selection (I am skeptical of the equipments capabilities and operating mode). Also might consider operating the dryer under vacuum.

JUSTIFICATION

SDRD draft currently has a different basis for sizing the dryer. Need to reconcile the difference and understand the basis. Vacuum would be more efficient for the drying, keep the temperature of the material lower, and ensure no escape of volatile contamination and leaks.

RECOMMENDATION

Provide basis for dryer sizing and improved description of operation - and determine alternative methods and assess impacts and preferences during MFD development. Consider using vacuum system in MFD development.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
Date Assigned: January 31, 1994
Reviewer Signature: *[Signature]*

Assigned Category: 2
Comment Status:
ESQ Review Number:

Agree with comment incorporate suggestions.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 4

[Signature] OK

ROM Cost Impact:

Construction Package Number:

The type and size of dryer will be addressed in the Title design. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #:
Section Paragraph #:
Drawing #: H-2-140628/H-2-140637
Zone Location:

Reviewer Identification: WEINGARDT
Rev Comment #: 99
Comment Category: 2
Sheet #: 1/1

COMMENT

Suggest that the debris filling and grout infilling (waste loading and grouting) be located at the same station.

JUSTIFICATION

Seem like having two stations is a duplication of functions as they both require vibratory mechanisms on the container. Also, would eliminate the need to open and close the drum an extra time.

RECOMMENDATION

Recommend incorporating the suggestion or providing technical basis for the decision.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
Date Assigned: January 31, 1994
Reviewer Signature: *[Signature]*

Assigned Category: 2
Comment Status:
ESQ Review Number:

Agree with comment - incorporate suggestions.

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Disagree. Vibro-grouted boxes arise from (1) special waste bottles and shredded material (2) compacted empty drums (3) debris processing and (4) box breakdown area. A separate station is dictated by the time and motion simulation in order to meet the plant throughput requirements. Boxes from all areas other than the debris processing would otherwise be queueing up while the station is being used. Also, debris filling and grout infilling at the same location is physically complex to achieve. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #:
Section Paragraph #:
Drawing #: H-2-140631/H-2-140657
Zone Location:

Reviewer Identification: WEINGARDT
Rev Comment #: 100
Comment Category: 1
Sheet #: 5/1

COMMENT

Wastewater collection - It appears from the design media that the top of the wastewater collection tanks are at ~120 ft and the bottom of most of the process enclosures (grout fill enclosure, pe fill enclosure, debris fill, vibro grout fill etc) and much of the process equipment (grout batch tanks, second floor process area) are below the 120 ft. No pumps are shown on any drawing to get to the active tanks. Gravity flow would be preferable. Also design should account for double contained piping crossing the transfer corridor (for detailed design).

JUSTIFICATION

Gravity generally works in the downward direction. The BFD/PFD for wastewater shows water being routed to the waste tanks from all of the aforementioned areas and some not mentioned. Method of transport not addressed in the design.

RECOMMENDATION

Put active waste tanks below grade on process side of transfer corridor.

WHC DISPOSITION

Assigned WHC Cog: PAULY
Date Assigned: January 31, 1994
Reviewer Signature:

Assigned Category: 1
Comment Status: 0
ESQ Review Number:

UE&C to provide rationale for transfer of liquid wastes to liquid waste collection tanks (i.e. sufficient elevation change for gravity flow lines, or show pumps where needed). See also comment #221 for related discussion.

Final Disposition

A-E Lead Engineer: Chapin

Final Category: 2/4

ROM Cost Impact:

Construction Package Number:

See also Comments 162, 175, and 221.

1) (Cat. 2) The following approach is added in the ACDR (section 7.2.11.2.7): For the active and non-active drain systems, the intent is to gravity drain to the respective collection tanks, wherever possible. Where gravity flow is not possible, permanent pumps will be used if liquid waste is expected frequently or routinely (e.g., grout washing). If liquid waste is expected infrequently (e.g., enclosure sumps), the concept is to use portable temporary pumps. Drain headers will include strategically located connection points to facilitate quick hookup from the temporary pump discharges. No ACDR drawing Change is necessary.

WRAP 2A ACDR Review
Design Review Comment Submittal

D-102

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #:
 Section Paragraph #:
 Drawing #: H-2-140628/641/638
 Zone Location:

Reviewer Identification: WEINGARDT
 Rev Comment #: 101
 Comment Category: 2
 Sheet #:

COMMENT

Preconditioning Line:

1. Recommend drying before crushing.
2. Only small fraction of grout particulate waste to be crushed - crush only that portion that requires it (>1/2 inch).
3. Crusher route to either grout (for small quantity mentioned) or pe for all waste >3mm. (note: dryer will probably accomplish most (if not all) of the size reduction required- may not need to send all dried waste to grinder but only small portion.

JUSTIFICATION

Crushing will only be needed for a small fraction of the waste (grout does not have strict equipment requirements, and pe will accomplish most size reduction in dryer). Crusher would work better and be easier to keep clean and maintained with dry waste (note: screened rocks will not have significant water content from the grout line). The aforementioned approach would cut down on grinder sizing and operating time/life wear and tear, noise in the facility etc.

RECOMMENDATION

Change to the outlined approach for MFD development.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
 Date Assigned: January 31, 1994
 Reviewer Signature:

Assigned Category: 2
 Comment Status:
 ESQ Review Number:

Agree with comment - incorporate recommendations into process flow diagrams.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree. Revised drawings per comment.

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 5.9.5
Drawing #: H-2-140650
Zone Location: 4F

Reviewer Identification: BURBANK
Rev Comment #: 102
Comment Category: 3
Sheet #: 2

COMMENT

Special waste treatment equipment description on drawing does not match description in text.

JUSTIFICATION

The equipment described on the drawing is AUTOTITRATION, the text describes it as AUTOFILTRATION.

RECOMMENDATION

Change all references to "autofiltration" in the text to "autotitration"

WHC DISPOSITION

Assigned WHC Cog: PAULY

Date Assigned: February 2, 1994

Reviewer Signature: *Dwight A. Basu*

Assigned Category: 3

Comment Status: Open

ESQ Review Number:

UE&C is requested to correct text as indicated.

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Corrected "autofiltration" to "autotitration" in 4 places.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 5.3.2
Drawing #:
Zone Location:

Reviewer Identification: BURBANK
Rev Comment #: 103
Comment Category: 1
Sheet #:

COMMENT

The description of box movement inside box breakdown is not detailed enough. It is not clear how the overhead crane will pick and place the box. Need to provide a means for rigging the box while it is outside the enclosure to eliminate the need for routine manned access to the box breakdown cell.

JUSTIFICATION

ALARA considerations dictate that manned access to the cell for purposes of rigging the boxes for hoisting by the crane is not acceptable.

RECOMMENDATION

Provide detailed description of how boxes are to be rigged for hoisting by the overhead crane. Boxes should be rigged for hoisting prior to entry into the cell.

WHC DISPOSITION

Assigned WHC Cog: HORGOS

Assigned Category:

Date Assigned: February 2, 1994

Comment Status: OPEN - cat 4.

Reviewer Signature: Doug A. Burk

ESQ Review Number:

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 4

ROM Cost Impact:

Construction Package Number:

This level of detail will be provided at Title design.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 5.9
Drawing #:
Zone Location:

Reviewer Identification: BURBANK
Rev Comment #: 104
Comment Category: 5
Sheet #:

COMMENT

The definition of "special waste" used by WRAP 2A conflicts with the definition found in WAC 173-303-040

JUSTIFICATION

Quoting from WAC 173-303-040: "Special waste" means and dangerous waste that is solid only (nonliquid, nonaqueous, nongaseous), that is not a regulated hazardous waste under 40 CFR Part 261, and that is designated as only DW in WAC 173-303-090, 173-303-101, 173-303-102, or 173-303-103. Any solid waste that is EHW or that is regulated by the United States EPA as hazardous waste cannot be a special waste.

RECOMMENDATION

Change the name of this process line.

WHC DISPOSITION

Assigned WHC Cog: <u>PAULY</u>	Assigned Category: 5
Date Assigned: February 2, 1994	Comment Status: Open
Reviewer Signature: <u><i>Henry A. Bullock</i></u>	ESQ Review Number:

It is recognized that certain words or phrases frequently have specific meanings within the context of individual regulatory realms, and that the resultant overlaps and conflicts between these usages can create misunderstandings. Westinghouse needs to determine whether this issue is best resolved by defining the term and indicating usage (i.e. as regulatory term or as location in facility), or to revise design media and use another name.

Final Disposition

A-E Lead Engineer: Nelson	Final Category: 5
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ROM Cost Impact:	Construction Package Number:
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Agree with WHC disposition. WHC will decide if terminology will be changed during Title I. For now, added note to paragraph 2.2.2.10 to explain that definitions of "special waste" given elsewhere (such as WAC 173-303) do not apply to WRAP 2A.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 1
 Section Paragraph #: Section 5.3.2.8
 Drawing #: N/A
 Zone Location: N/A

Reviewer Identification: HORGOS
 Rev Comment #: 105
 Comment Category: 2
 Sheet #: Page I-9

COMMENT

This Section calls for decontamination of emptied Waste Boxes in order to recover or recycle the empty boxes. It is not an acceptable policy at any DOE facility to decontaminate plutonium contaminated objects for release to non-restricted areas (i.e., to reduce contamination levels to less than 20 dpm/100 square centimeters of area.)

JUSTIFICATION

Once an object is placed within a Zone I confinement, it must be assumed to be totally contaminated. It is extremely difficult to adequately survey and verify the contamination levels of decontaminated objects. The cost of performing a contamination survey to verify non-contamination, to less than allowable limits, would be prohibitive.

RECOMMENDATION

For WRAP 2A retain the CDR position that all empty containers (both drums and boxes) are to be cut into pieces small enough to fit into a waste product container and to be immobilized in like manner to Debris immobilization.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
 Date Assigned: February 2, 1994
 Reviewer Signature: [Signature]

Assigned Category:
 Comment Status: OPEN
 ESQ Review Number: N/A

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 1/5

ROM Cost Impact:

Construction Package Number:

Agree. Removed reference to "reuse of empty boxes". WHC has action to revise FDC to remove the requirement "the capability to remove waste and containers that will not be size reduced shall be provided".

WAC Action

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: Section 5.4.2.2
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: HORGOS
Rev Comment #: 106
Comment Category: 2
Sheet #: Page 1-10

COMMENT

This Section calls for the lid to be replaced remotely on all empty drums and the drum to be transferred to the next operation. The CDR design specified that the drum lid and the clamping ring will be cut off the drum. Depending on the method for removing the lid and the clamping ring, it may not be practical to replace the lid on the drum.

JUSTIFICATION

The condition of the lid and the clamping ring once it has been removed must be determined before a decision is made to replace those components back on the empty drum. If these parts are cut, as was planned in the CDR, they will not be in a condition to fit back on the drum.

RECOMMENDATION

Define the method of removing the clamping bolt, clamping ring, and drum lid before determining final disposition of these components.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: February 2, 1994
Reviewer Signature: [Signature]

Assigned Category:
Comment Status: OPEN
ESQ Review Number: N/A

cat 4

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 4

ROM Cost Impact:

Construction Package Number:

This level of detail operation description will be done at Title design.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 1
 Section Paragraph #: Section 5.7.1.1
 Drawing #: N/A
 Zone Location: Line #6

Reviewer Identification: HORGOS
 Rev Comment #: 107
 Comment Category: 1
 Sheet #: Page I-13

COMMENT

This Section calls for polyethylene immobilization media to be injected into a waste container filled with oversize waste items to macroencapsulate waste that was preloaded into product containers. It must be demonstrated that molten polyethylene can be "poured" into a product container and will infiltrate all crevices and cavities to adequately macroencapsulate solid waste objects.

JUSTIFICATION

There is no experience with "pouring" molten polyethylene, into a preloaded waste container, in a manner that will verify that all surfaces of the contained items will be totally macroencapsulated.

RECOMMENDATION

Obtain verification that "macroencapsulation" of preloaded containers is a viable concept. This verification can be obtained by referencing macroencapsulation activities by others or by obtaining test results that verify the capability to successfully perform this operation.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
 Date Assigned: February 2, 1994
 Reviewer Signature: [Signature]

Assigned Category: 5/3
 Comment Status:
 ESQ Review Number: N/A

Valid comment - however, suggest that it is WHCs action to verify the suitability of the process. The A/E should include the words that this is not currently a proven concept and if we need to use it - it will have to be demonstrated more thoroughly.

Final Disposition

A-E Lead Engineer: Chapin

Final Category: 3/5

ROM Cost Impact:

Construction Package Number:

Section 5.7.4 addresses gravity infill using PE in more detail than Section 5.7.1.1. That this is an unproven concept is added to section 5.7.4.1 in the ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: Section 5.8.4.9
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: HORGOS
Rev Comment #: 108
Comment Category: 1
Sheet #: Page I-19

COMMENT

This Section refers to water flushing the Grout System at the end of the working day, collecting the flushed grout and flushing water and moving the collection container to a parking to allow the solids to settle out. There is no discussion of what will take place if the contained grout cures and hardens.

JUSTIFICATION

Depending on the ratio of water to flushed grout, there is a good possibility that the flushed grout could cure and harden in the collection container. There is no indication of what the final disposition of the partially filled collection container will be if the grout does in fact harden. There is no indication that any attempts will be made to prevent the grout hardening.

RECOMMENDATION

Specify the disposition of the partially filled water/grout collection container.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
Date Assigned: February 2, 1994
Reviewer Signature: *[Signature]*

Assigned Category: 1
Comment Status:
ESQ Review Number: N/A

Same as Comment #93.

Final Disposition

A-E Lead Engineer: Voke

Final Category: 1

ROM Cost Impact:

Construction Package Number:

See comment 93 for detailed disposition.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: Section 5.9.3.3
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: HORGOS
Rev Comment #: 109
Comment Category: 2
Sheet #: Page I-22

COMMENT

It is being proposed that sealed objects, containing liquid mercury, be processed through a shredder to release the liquid mercury to facilitate mercury evaporation in the evaporator. A different method of breaking the seal on any objects that contain liquid mercury in order to collect the mercury is required.

JUSTIFICATION

If sealed objects, containing liquid mercury, were shredded in the large, low speed, high torque WRAP 2A shredder, the liquid mercury would get lost in the cavities and crevices of the shredder and would not be collectible for subsequent treatment. Evaporation is not BDAT for liquid mercury, amalgamation is the BDAT for liquid mercury.

RECOMMENDATION

Develop alternate methods for breaking sealed objects that contain liquid mercury with appropriate methods for collecting all of the released mercury. Objects that contain liquid mercury should not be processed through the shredder as it will be almost impossible to collect any released mercury.

WHC DISPOSITION

Assigned WHC Cog: PAULY Assigned Category: 1/4/5
Date Assigned: February 2, 1994 Comment Status: 0
Reviewer Signature: [Signature] ESQ Review Number: N/A

UE&C is requested to remove the words "...break open thermometers, mercury switches, etc., and expose the elemental mercury..." from section 5.9.3.3 of the text. Westinghouse needs to determine what waste items require shredding and provide this information to UE&C in the form of design guidance (i.e. SDRD). See comment #206 for related discussion.

Final Disposition

A-E Lead Engineer: Nelson Final Category: 1/4/5

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC disposition.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: Section 6.3.3
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: HORGOS
Rev Comment #: 110
Comment Category: 1
Sheet #: Page I-21

COMMENT

The description of the HVAC systems indicates that the ACDR design for the WRAP 2A HVAC is totally different than the HVAC system that was proposed in the CDR.

JUSTIFICATION

The ACDR description of the HVAC system for WRAP 2A contains features that do not appear on the CDR drawings that describe the HVAC system. These individual differences are described in subsequent Comments.

RECOMMENDATION

The Design of the ACDR HVAC System should revert back to the CDR design.

WHC DISPOSITION

Assigned WHC Cog: HORGOS

Assigned Category:

Date Assigned: February 2, 1994

Comment Status: CLOSED

Reviewer Signature: [Signature]

ESQ Review Number: N/A

Final Disposition

A-E Lead Engineer: Gehret

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Acknowledged comment. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 1
 Section Paragraph #: 6.3.3.3.1.d
 Drawing #: N/A
 Zone Location: N/A

Reviewer Identification: HORGOS
 Rev Comment #: 111
 Comment Category: 1
 Sheet #: page I-23

COMMENT

Statement is made: "It includes one stage non testable HEPA filters located at the inlet of the enclosures and off-gas tanks." This appears to be an error, HEPA filters are not usually installed at the inlets to off-gas tanks, a HEPA filter would inhibit flow into the off-gas tank.

JUSTIFICATION

HEPA filters are not normally installed at the inlets of "off-gas" tanks.

RECOMMENDATION

Suggest rewording the sentence to read: "It includes one stage non-testable HEPA filters located at the inlet of the enclosures and the outlets of off-gas tanks."

WHC DISPOSITION

Assigned WHC Cog: HORGOS
 Date Assigned: February 2, 1994
 Reviewer Signature: [Signature]

Assigned Category:
 Comment Status: [Signature] cat 4
 ESQ Review Number: N/A

Final Disposition

A-E Lead Engineer: Gehret

Final Category: 1/4

ROM Cost Impact:

Construction Package Number:

Revised, deleted "off-gas tanks." Drawings to be revised at a later design stage.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR Reviewer Identification: HORGOS
 Volume #: 1 Rev Comment #: 112
 Section Paragraph #: 6.3.3.3.2.b, 2nd Bullet Comment Category: 1
 Drawing #: N/A Sheet #: page I-25
 Zone Location: N/A

COMMENT

This Bullet states: "A second Zone I exhaust system incorporating carbon adsorbers in the filter train will be used to ventilate enclosures where VOV's may be released. This will be a fully redundant system also." There is not a sufficient quantity of VOC contaminated waste to justify installation of a second plus a redundant Zone I exhaust system.

JUSTIFICATION

The only process that might handle VOC's is the Special Waste Treatment System. The Exhaust ventilation line for that system could contain carbon adsorbers in addition to the routing HEPA filters that would be installed in that ventilation line. There is not a large volume of VOC's identified for treatment in WRAP 2A.

RECOMMENDATION

Delete the requirement for a separate ZONE I exhaust system for treating air that might be contaminated with VOC's. And delete any requirements for redundant systems. There might be a need for redundant components of any particular system but fully redundant systems are not necessary.

WHC DISPOSITION

Assigned WHC Cog: HORGOS Assigned Category:
 Date Assigned: February 2, 1994 Comment Status: closed
 Reviewer Signature: [Signature] ESQ Review Number: N/A

Final Disposition

A-E Lead Engineer: Gehret Final Category: 2

ROM Cost Impact:

Construction Package Number:

Clarified the test. The intent is to consolidate the exhaust streams (as recommended in CDR comment no. 244) into those requiring carbon adsorbers and HEPAs and those where only HEPAs are required.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR Reviewer Identification: HORGOS
 Volume #: 1 Rev Comment #: 113
 Section Paragraph #: 6.3.3.3.2.b, 4th Bullet Comment Category: 1
 Drawing #: _____ Sheet #: page I-25
 Zone Location: N/A

COMMENT

This statement says: "Inlet air to Zone I enclosures or off-gas tanks will be prefiltered and then HEPA filtered prior to entry." It also states: "Zone I negative pressure will be kept constant inside each Zone I enclosure." The inlets to off-gas tanks should not be filtered and the FDC allows for a range of negative pressure rather than a "constant" pressure.

JUSTIFICATION

Filters on the inlets to off-gas tanks would inhibit flow into the tanks. There are no specific requirements for maintaining a "constant" negative pressure in Zone I confinements.

RECOMMENDATION

Delete the requirement for filters on the inlets to off-gas tanks. Change the reference from "constant" negative pressure to: negative pressure in the Zone I enclosures will be maintained at -0.7" to -1.0" H₂O.

WHC DISPOSITION

Assigned WHC Cog: HORGOS Assigned Category: _____
 Date Assigned: February 2, 1994 Comment Status: closed
 Reviewer Signature: [Signature] ESQ Review Number: N/A

Agree with recommendations.

Final Disposition

A-E Lead Engineer: Gehret Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: <u>WRAP 2A ACDR</u>	Reviewer Identification: <u>HORGOS</u>
Volume #: <u>1</u>	Rev Comment #: <u>114</u>
Section Paragraph #: <u>6.3.3.3.2.b, 6th Bullet</u>	Comment Category: <u>2</u>
Drawing #: <u>N/A</u>	Sheet #: <u>page 1-25</u>
Zone Location: <u>N/A</u>	

COMMENT

Statement is made: "Exhaust fans will be controlled from air flow measuring devices located in the exhaust duct work." There is no requirement for controlling the capacity (or speed) of the Exhaust fans. Attempts to control the exhaust fans will result in unnecessary cost, will complicate the control system and will add a complexity that will compromise reliability of the ventilation system.

JUSTIFICATION

The only specified flow requirement for the ventilation system is the need to maintain a flow of 125 lfpm +/- 25 lfpm over any credible breach in the Zone I confinement system. There is no specified flow requirement in the Zone I areas.

RECOMMENDATION

Delete the requirement for measuring air flows for the purpose of controlling the exhaust fans.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: February 2, 1994
Reviewer Signature: _____

Assigned Category: _____
Comment Status: OPEN - cat 4
ESQ Review Number: N/A

Final Disposition

A-E Lead Engineer: Gehret

Final Category: 2 4

ROM Cost Impact:

Construction Package Number:

Disagree with recommendation, clarified the text.

*This comment should be kept "open" until
detailed design of the HVAC is completed.
I continue to question where & how & how many
air flow measuring sensors will be located.*

RM Horgos 3/2/94

**WRAP 2A ACDR Review
Design Review Comment Submittal**

Document Title: <u>WRAP 2A ACDR</u>	Reviewer Identification: <u>HORGOS</u>
Volume #: <u>1</u>	Rev Comment #: <u>115</u>
Section Paragraph #: <u>6.3.3.3.2.c, 4th Bullet</u>	Comment Category: <u>1</u>
Drawing #: <u>N/A</u>	Sheet #: <u>page I-26</u>
Zone Location: <u>N/A</u>	

COMMENT

The statement is made: The room pressure control system for Zone II areas will be based upon a differential of exhaust and supply air flow rates measured at airflow stations. Exhaust air for Zone II will be kept at a constant volume. Section 6.3.3.3.2.b, 6th Bullet states that the exhaust fans will be controlled and this statement says that the inlet fans will be controlled, it is not possible to control both inlet and outlet while maintaining constant pressure and constant flow. There is no need to control both.

JUSTIFICATION

There are no reliable or dependable flow measuring devices that can adequately control air flow rates. HVAC systems are generally controlled by "Pressure Sensors." There is also no requirement to establish "Airflow stations" nor will it be practical to try to locate such stations.

RECOMMENDATION

Delete the requirement to measure air flows in the HVAC system and replace this requirement with pressure monitoring devices. Delete any suggestion that there will be an attempt to control both the inlet and exhaust systems.

WHC DISPOSITION

Assigned WHC Cog: <u>HORGOS</u>	Assigned Category:
Date Assigned: <u>February 2, 1994</u>	Comment Status: <u>open cat 4</u>
Reviewer Signature: _____	ESQ Review Number: <u>N/A</u>

Final Disposition

A-E Lead Engineer: <u>Gehret</u>	Final Category: <u>2 4</u>
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ROM Cost Impact:

Construction Package Number: .

Disagree with recommendation, clarified the text.

See comment #114 - This comment should be kept "open" until detail design information is available for the wrap 2A HVAC design
RM Horgos 3/2/94

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: <u>WRAP 2A ACDR</u>	Reviewer Identification: <u>HORGOS</u>
Volume #: <u>1</u>	Rev Comment #: <u>116</u>
Section Paragraph #: <u>6.3.3.3.2.c, 5th Bullet</u>	Comment Category: <u>1</u>
Drawing #: <u>N/A</u>	Sheet #: <u>page 1-26</u>
Zone Location: <u>N/A</u>	

COMMENT

This statement says: "Exhaust fans serving at the HEPA filter trains will be controlled by utilizing variable inlet vanes in order to achieve constant air flow as system resistance increases due to filter loading." There is no requirement for maintaining constant air flow through the system.

JUSTIFICATION

There is no requirement for maintaining a constant air flow volume through the HVAC system. Portions of this ACDR Section also call for maintaining constant pressure. Attempts to control all aspects of the HVAC System add cost, complexity and affect reliability.

RECOMMENDATION

Delete the requirement for variable inlet vanes at the Exhaust fans.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
 Date Assigned: February 2, 1994
 Reviewer Signature: _____

Assigned Category: _____
 Comment Status: Open cat 4.
 ESQ Review Number: N/A

Final Disposition

A-E Lead Engineer: Gehret

Final Category: 24

ROM Cost Impact:

Construction Package Number:

Disagree with recommendation, clarified the text.

See Comments 114 & 115 - This Comment should remain "OPEN" until Detailed Design information is available for the WRAP 2A HVAC system.

RM Horgos 3/2/94

**WRAP 2A ACDR Review
Design Review Comment Submittal**

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 7.2.2.2.5, para 1
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: HORGOS
Rev Comment #: 117
Comment Category: 1
Sheet #: page I-11

COMMENT

The statement is made: "Both the incoming waste feed drums and the exiting empty waste feed drums are transferred through an entry/exit port which in included as" An identical statement is made in Section 7.2.2.2.6. Empty drums cannot be exited through the Entry/Exit port.

JUSTIFICATION

The empty drums will have surface contamination as a result of being within the Zone I confinement. They cannot be "exited" via the Entry/Exit port.

RECOMMENDATION

Delete the statement. If current design calls for empty drums to exit through a Entry/Exit port then the design of the system should be changed.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: February 2, 1994
Reviewer Signature: [Signature]

Assigned Category:
Comment Status: Closed
ESQ Review Number: N/A

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree with comment. The statement in 7.2.2.2.5 was incorrect and has been revised.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 7.3.2, Items 1 & 2
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: HORGOS
Rev Comment #: 118
Comment Category: 1
Sheet #: page I-111

COMMENT

Item #1 says: "Large or heavy items cannot be lifted by hand so mechanical intervention is required here." Item #2 says: Large items must, therefore, be manually removed and lowered down the heavy item removal chute." These two statements contradict each other, it cannot be both ways. Item #2, which discussed manual operations, does not belong in this Section which is titled: "Automatic vs Semi-automatic operation."

JUSTIFICATION

The requirement should be for mechanical intervention for handling large or heavy objects. Proper Human Factors Engineering practises restrict the size and weight of objects to be manually handled.

RECOMMENDATION

Delete the contradictory statements. The requirement should be for mechanical handling of large or heavy objects. Remove Item #2 from this Section since the discussion should be related to Automatic vs Semi-automatic operations.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: [Signature]

Assigned Category: 1
Comment Status: CLOSED
ESQ Review Number: N/A

Agree with comment, provide wording clarification in ACDR.

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree with comment. Revised 7.3.2.2 to clarify contradiction.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 7.3.3. Item 1
Drawing #: N/AS
Zone Location: N/A

Reviewer Identification: HORGOS
Rev Comment #: 119
Comment Category: 1
Sheet #: page I-112

COMMENT

Statement is: "Primarily the decontamination tank and maintenance hoods have been sized for repair of the sorting manipulators. A cost analysis has shown this to be cost effective rather than disposal of the failed manipulator. The question that this analysis ignored was: Is it more effective to remove the manipulator from its installed location and move it to a decontamination tank prior to initiating repairs or would it be more efficient to design in manual capabilities (i.e. gloveports and gloves) to repair the manipulator in-situ?"

JUSTIFICATION

Removal of a contaminated manipulator from its work location for removal to a maintenance area for decontamination/repair is a major undertaking involving considerable time and cost. In-place repair appears to be a far superior approach to repair problems. Since WRAP 2A will not have thick and massive shielding walls, through the wall repair could be accomplished easily via the mechanism of gloveports and gloves being installed in the confinement wall.

RECOMMENDATION

Re-examine the ACDR approach for removing the manipulators to a decontamination tank and maintenance hood for repair. Examine the possibility of performing repairs in-place.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: CM Horgos 3/10/94
Assigned Category: 1
Comment Status: O/EV
ESQ Review Number: N/A

Agree with comment, clarify maintenance activities and approach to be used. If decontamination tank and hoods are specified in wording then they must be shown on drawings and space allocated and tank must be connected to water collection system and disposal of rinse material must be developed. These are all cost adders.

Final Disposition

A-E Lead Engineer: Dutton
Final Category: 24

ROM Cost Impact:

Construction Package Number:

Disagree. The architectural room confinement configuration, with 9" thick walls, rules out hands on maintenance, and must be performed by man entry into the zone 1 confinement. As outlined in the maintenance study data sheets, the repair tasks are impossible to perform through gloveports. Also, data contained in Appendix 4 of the study shows that it is cost and dose effective to remove the manipulator from its location, decontaminate, and perform hands on repair. No change to ACDR.

Reviewer continues to question the validity of this approach & will continue to challenge it during Title I design -

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 7.3.3, Item #5
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: HORGOS
Rev Comment #: 120
Comment Category: 1
Sheet #: page 1-112

COMMENT

Statement is made: "The equipment located in the Zone I architectural room on the operating floor would mean man entry into confinement." WRAP 2A design should preclude, to the extent practicable, the need for plant personnel to enter into confinement in order to conduct maintenance activities.

JUSTIFICATION

Equipment design could be designed with modifications to allow for preventative maintenance manually by the addition of gloveports and extensions on things such as lubrication fittings, etc. to facilitate preventative maintenance on a regular basis.

RECOMMENDATION

Delete the statement "An assessment would probably determine that the equipment located in this area would be run to fail.." If the assesement has not been performed, no assumptions should be made and the statement should be deleted. An assessment should be made that presumes that gloveports are installed in order to allow in-situ preventative maintenance activities.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: LM Horgos 3/10/94

Assigned Category: 1
Comment Status: Closed
ESQ Review Number: N/A

Agree with comment, provide justification for routine/periodic manned entry into any zone 1 areas. Establish frequency for maintenance and operations support.

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 1

ROM Cost Impact:

Construction Package Number:

There is no routine or periodic man entry into confinement. Revised section 7.3.3.5 to indicate that equipment in this area will run to fail.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: I
 Section Paragraph #: 7.3.3, Item 6.b
 Drawing #: N/A
 Zone Location: N/A

Reviewer Identification: HORGOS
 Rev Comment #: 121
 Comment Category: 1
 Sheet #: page 113

COMMENT

Statement is made: "If the flange of the equipment and the mating flange can be separated by a spacer,...." There should not be any "if" statements in the ACDR. UE&C should make the design decision and proceed accordingly.

JUSTIFICATION

The design of equipment, including any provisions for maintenance, repair, and replacement are the responsibility of UE&C and UE&C should make the recommendation to incorporate suggested modifications that would simplify maintenance, repair, and replacement procedures. The details of how this could be accomplished are also the responsibility of the design agency.

RECOMMENDATION

Delete this statement and replace it with a positive and definitive statement that factors in the required design features to implement this idea.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD Assigned Category: 1
 Date Assigned: February 2, 1994 Comment Status: closed
 Reviewer Signature: RM Horgos 3/6/94 ESQ Review Number: N/A

Agree with Comment, delete use of "if". be specific. Specify that all equipment will be designed to allow removal and reinstallation and prevent contamination spread during removal and installation.

Final Disposition

A-E Lead Engineer: Dutton Final Category: 3

ROM Cost Impact: Construction Package Number:

Agree. The word "if" is deleted and replaced with "....shall be separated by a spacer....".

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 7.3.3, Item 6.c
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: HORGOS
Rev Comment #: 122
Comment Category: 1
Sheet #: page I-113

COMMENT

This Item discusses the methods for removing the equipment from it's installed location for relocation to the Box Breakdown Area for repair and maintenance. Relocation of process equipment for repair and maintenance should be a "last" resort decision. The Box Breakdown Area has sufficient activities identified to be performed in this area. The Box Breakdown area will have a very busy schedule of processing activities and this schedule does not require perturbation by unscheduled relocation of broken down equipment.

JUSTIFICATION

The Box Breakdown Area is already slated to process large boxes of waste, oversized drums, overpacked drums, product rejects, and product containers for destructive examination. The Box Breakdown Area does not lack of scheduled activities and does not require the addition of non-necessary activities.

RECOMMENDATION

Delete any reference for routine movement of equipment, that requires repair or maintenance operations. Plan to perform routine maintenance and repair in- place to the maximum extent possible.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: *William Horgos* 3/10/94

Assigned Category: 1
Comment Status:
ESQ Review Number: N/A

Agree with Comment, specify infrequent entry into zone 1 and address in place maintenance of all equipment. Maintenance activities have continually been a low consideration and a real effort should be initiated to address the maintenance issues for the specific plant and equipment selected.

There has been no plans or throughput allowances provided in the box breakdown area for maintenance activities. These must be included throughout the ACDR.

Final Disposition

A-E Lead Engineer: Dutton
ROM Cost Impact:

Final Category: 3
Construction Package Number:

Disagree with the comment that maintenance activities have continually been a low consideration. Also, section 7.3.3.6.c does not state routine movement of equipment or relocation to box breakdown area for repair or maintenance. The maintenance evaluation study does describe methods of removing externally mounted bearings, motors, chains etc. with the equipment insitu. It will be a last resort where entire pieces of equipment would be removed, e.g., breakage of 50% of shredder blades, broken twin screws in the dryer, etc. Such removals are not for repair or maintenance, but for disposal. The occurrence of such equipment failures cannot be scheduled into normal process operations. Size reduction and encapsulation of these pieces will be undertaken outside the 175 days plant availability. There is a designated area within the box breakdown cell for failed equipment storage. Added section 7.2.9 to clarify this area and operation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #: N/A
Drawing #: PFD H-2-140628, SH 4
Zone Location: N/A

Reviewer Identification: HORGOS
Rev Comment #: 123
Comment Category: 4
Sheet #: Sheet 4 Of 4

COMMENT

The Box Breakdwn Area shows an installed Shredder. The only feed to the Shredder is Stream #86, Oversized Waste for Shredding. The Daily volume for Stream #86 is 29.3 ft³ per shift (or 1,788 pounds per shift). Provide justification for installation of a dedicated shredder in the Box Breakdown Area.

JUSTIFICATION

The total feed volume of the identified feed stream to this shredder does not appear to justify the cost of another shredder nor justify the additional floor space necessary to accomodate a shredder in the Box Breakdwn Area.

RECOMMENDATION

The designated feed to the shredder appears to be Stream 1A, solidified 183H Solar Basin Waste. There is a finite volume of that feed stream. A review should be made to evaluate the need for this shredder. If the need for this device is justified, the review should then examine whether a shredder or a Crusher would be more suitable for this application.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994

Assigned Category: 1
Comment Status: Closed ✓

Comment closed. This is a duplicate of comment #133.

Reviewer Signature: *Cal Horgos* 3/10/94 ESQ Review Number: N/A

Final Disposition

A-E Lead Engineer: Basu

Final Category: 1

ROM Cost Impact:

Construction Package Number:

See comment 133 for disposition.

Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: Volume I
Section Paragraph #: Section 1.1 item9
Drawing #:
Zone Location:

Reviewer Identification: LAMBERD
Rev Comment #: 124
Comment Category: 3
Sheet #:

COMMENT

Correct Facility Safety Classification to Facility Hazards Classification

JUSTIFICATION

It is correctly termed the hazards Classification not the safety Class.

RECOMMENDATION

Change word safety to Hazard

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: D. Lamberd

Assigned Category: 3
Comment Status: Closed
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR Reviewer Identification: LAMBERD
Volume #: Volume I Rev Comment #: 125
Section Paragraph #: Section 2.4 item 5.a Comment Category: 3
Drawing #: Sheet #:
Zone Location:

COMMENT

Additional requirement change was deletion of the NDE/NDA

JUSTIFICATION

FDC deleted NDE/NDA

RECOMMENDATION

Add that NDE/NDA was deleted

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Assigned Category: 3

Date Assigned: February 3, 1994

Comment Status:

Reviewer Signature: D. Lamberd

ESQ Review Number: closed

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Disagree. See paragraph 2.4.5.b.

Agree

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR

Volume #: Volume I

Section Paragraph #: Section 2.4 item 5.c

Drawing #:

Zone Location:

Reviewer Identification: LAMBERD

Rev Comment #: 126

Comment Category: 3

Sheet #:

COMMENT

In paragraph a. suggest that reference to Single Immobilization study be made here to justify changes.

JUSTIFICATION

Will Clarify for understanding of changes.

RECOMMENDATION

Add a statement " Details of the specific bases for the change can be obtained in Volume III A Appendix C, Single Immobilization Engineering Study."

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Date Assigned: February 2, 1994

Reviewer Signature: *[Signature]*

Assigned Category: 3

Comment Status: *closed*

ESQ Review Number:

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: <u>WRAP 2A ACDR</u>	Reviewer Identification: <u>LAMBERD</u>
Volume #: <u>Volume 1</u>	Rev Comment #: <u>127</u>
Section Paragraph #: <u>Section 3.2.3 item i</u>	Comment Category: <u>3</u>
Drawing #:	Sheet #:
Zone Location:	

COMMENT

Suggest that the word containment be changed to confinement.

JUSTIFICATION

Clarify the issue

RECOMMENDATION

Chnage words

WHC DISPOSITION

Assigned WHC Cog: <u>PAULY</u>	Assigned Category: <u>3</u>
Date Assigned: February 2, 1994	Comment Status: <u>closed</u>
Reviewer Signature: <u>Dan Lamberd</u>	ESQ Review Number:

UE&C is requested to change the wording as indicated.

Final Disposition

A-E Lead Engineer: Basu	Final Category: <u>3</u>
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ROM Cost Impact:	Construction Package Number:
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Agree. Revised text per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: Volume 1
Section Paragraph #: Section 3.3.5.1
Drawing #:
Zone Location:

Reviewer Identification: LAMBERD
Rev Comment #: 128
Comment Category: 3
Sheet #:

COMMENT

Suggest that word judgement be changed to practices

JUSTIFICATION

RECOMMENDATION

Change word for Judgement to Practices

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: [Signature]

Assigned Category: 3
Comment Status:
ESQ Review Number:

closed

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: Volume 1
Section Paragraph #: Section 4.1 item 4
Drawing #:
Zone Location:

Reviewer Identification: LAMBERD
Rev Comment #: 129
Comment Category: 3
Sheet #:

COMMENT

Suggest that the reason for minimum handling is to avoid personnel exposure to hazardous and radioactive materials.

JUSTIFICATION

Reduce potential exposure of people and environment is main goal

RECOMMENDATION

Suggest that wording change to "A philosophy of minimum handling of the waste to reduce personnel exposure to hazardous and radioactive material has been adopted" be used

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Assigned Category: 3

Date Assigned: February 2, 1994

Comment Status: *closed*

Reviewer Signature: *[Signature]*

ESQ Review Number:

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: Volume 1
Section Paragraph #: Section 4.3 item c
Drawing #:
Zone Location:

Reviewer Identification: LAMBERD
Rev Comment #: 130
Comment Category: 3
Sheet #:

COMMENT

Suggest that wording be changed to say that the use of process equipment to provide confinement has been selected versus enclosing the equipment to provide confinement.

JUSTIFICATION

This is a clearer way of identifying that confinement is by the equipment rather than by the facility.

RECOMMENDATION

Change the word of item c.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: [Signature]

Assigned Category: 3
Comment Status: closed
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR Reviewer Identification: LAMBERD
Volume #: Volume 1 Rev Comment #: 131
Section Paragraph #: Section 4.3 item 2 Comment Category: 3
Drawing #: Sheet #:
Zone Location:

COMMENT

Please clarify that the shielded staging area is the area that is referred to as drum receipt and staging on drawing H-2-140599

JUSTIFICATION

Be consistant when using names of areas in the text portion of the document.

RECOMMENDATION

Change wording to agree with drawings

WHC DISPOSITION

Assigned WHC Cog: LAMBERD Assigned Category: 3
Date Assigned: February 2, 1994 Comment Status:
Reviewer Signature: [Signature] ESQ Review Number: closed

Final Disposition

A-E Lead Engineer: Basu Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: Volume 1
Section Paragraph #: Section 4.4 item 9
Drawing #:
Zone Location:

Reviewer Identification: LAMBERD
Rev Comment #: 132
Comment Category: 3
Sheet #:

COMMENT

Suggest that the example for off normal water needs be "decontamination of enclosures" rather than a fire.

JUSTIFICATION

decontamination of enclosures and equipment will occur much more frequently than will a fire.

RECOMMENDATION

Change example to "such as enclosure or equipment decontamination"

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: [Signature]

Assigned Category: 3
Comment Status:
ESQ Review Number: closed

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC recommendation.

**WRAP 2A ACDR Review
Design Review Comment Submittal**

Document Title: WRAP 2A ACDR

Reviewer Identification: LAMBERD

Volume #: Volume 1

Rev Comment #: 133

Section Paragraph #: Section 4.5 item 4

Comment Category: 1

Drawing #:

Sheet #:

Zone Location:

COMMENT

Provide specific waste streams and why a shredder will be used for for those. Specifically since it can be confusing to use a shredder on a particulate/sludge feed stream it would seem that another device might be better selected.

JUSTIFICATION

This shredder is used for solidified waste forma that must be initally size reduced before they can be accommodated in the particulate/sludge line.

RECOMMENDATION

Provide explanation as to why this shredder is needed and what feed streams it will treat.

WHC DISPOSITION

Assigned WHC Cog: HORGOS

Assigned Category: 1

Date Assigned: February 2, 1994

Comment Status: Open *Closed*

Reviewer Signature: *Darryl L. Lambert*

ESQ Review Number:

3/7/94

Cog Engineer agrees with the Recommendation. There has been no information describing the function of the shredder that is pictured in the Box Breakdown Area. The functions of the depicted shredder should be identified and the manner in which it will perform that function should be explained.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Revised text (and drawing) to change the shredder to a crusher, and described the function of the crusher.

**WRAP 2A ACDR Review
Design Review Comment Submittal**

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 4.5 item 5.c
Drawing #:
Zone Location:

Reviewer Identification: LAMBERD
Rev Comment #: 134
Comment Category: 1
Sheet #:

COMMENT

These drums should be routed to the sample management area for sampling before they are sent to W-112. Sampling is required before it can be treated.

JUSTIFICATION

Since there has been no sampling of these drums for particulates it is unknown what the particulates are. Sampling to determine treatment is required before the waste is delivered for treatment.

RECOMMENDATION

Clarify that these drums will be sampled before returning to W-112 to await treatment.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: [Signature]

Assigned Category: 1/5
Comment Status: closed
ESQ Review Number:

Agree with comment,

Cat 1: show routing of these drums to sample management before shipment to W112.

Cat 5: WHC will add requirment to sample into SDRD. Frequency will also be added

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 2/5

ROM Cost Impact:

Construction Package Number:

Agree. Revised sections 4.5.5.c, 5.4.2, and 7.2.4.2.3 (and drawings) to incorporate WHC recommendation.

**WRAP 2A ACDR Review
Design Review Comment Submittal**

Document Title: WRAP 2A ACDR
Volume #: Volume 1
Section Paragraph #: Section 4.5 item d
Drawing #:
Zone Location:

Reviewer Identification: LAMBERD
Rev Comment #: 135
Comment Category: 1
Sheet #:

COMMENT

There is no clear justification for a screen to be located below the crusher. Specifically to remove material that is debris. This material must generally be greater than 60 mm and at that size it will not pass through the crusher. If it is remove uncrusherable materials it should not be called a screen. Perhaps a separator.

JUSTIFICATION

If the crusher will reduce material to a small size a screen to recover debris waste a screen is the wrong device.

RECOMMENDATION

Recommend that the screen be placed above the crusher and that only the material that does not pass through the screen gets crushed. This reduces size and volume of waste to be crushed.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
Date Assigned: February 2, 1994
Reviewer Signature: [Signature]

Assigned Category: 1
Comment Status:
ESQ Review Number:

Agree with comment - reference comment # 101 for joint disposition.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Revised sections 4.5.5.d and 5.5.2 through 5.5.4 per WHC disposition.

OK [Signature] for DL²

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: Volume 1
Section Paragraph #: Section 4.5 item e
Drawing #:
Zone Location:

Reviewer Identification: LAMBERD
Rev Comment #: 136
Comment Category: 2
Sheet #:

COMMENT

Suggest placing the special waste entirely sepearte from the other waste processing. Place it in a sepearte process enclosure on the operating floor level. This will eliminate a drum lift and a box lift and enclosure can be sized smaller.

JUSTIFICATION

Raising the waste up three levels and then moving a box up the same height seems to be unnecessary movements. If height is necessary us a waste lift inside the enclosure. The only connections to the other processing is in handling empty drums.

RECOMMENDATION

Place the special waste in a sepearte enclosure and design it similiar to desing contained in the CDR.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: [Signature]

Assigned Category: 4
Comment Status: closed
ESQ Review Number:

This will be evaluated in title 1 desgin when plant layout and special waste MFD development is started.

Final Disposition

A-E Lead Engineer: Nelson/Dutton

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: Volume 1
 Section Paragraph #: Section 4.5 Item f
 Drawing #:
 Zone Location:

Reviewer Identification: LAMBERD
 Rev Comment #: 137
 Comment Category: 2
 Sheet #:

COMMENT

Suggest that rather than placing the compactor on the top level and raising a box up to it. The compactor should be placed on the lower level and a drum lift be used to lower the drums to the compactor.

JUSTIFICATION

A drum lift is smaller and cheaper than a box lift.

RECOMMENDATION

Place the compactor on the lower level and lower the drums down to it to load into the box.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Assigned Category: 4

Date Assigned: February 2, 1994

Comment Status:

Reviewer Signature: *D. Lamberd*

ESQ Review Number: *closed*

This will be addressed in title 1 during plant layout evaluations, and MFD development for drums and materail transport.

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 4

ROM Cost Impact:

Construction Package Number:

The drum compactor is located in a zone 1 area. After compaction of the drum, it will be picked off an exit conveyor and loaded through a double lidded system into a conveyor. If the compactor was located on the ground floor, a zone 1 confinement shaft hoist would be an additional requirement plus the compact handling loadout glovebox. We recommend to stay with the current layout. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: Volume 1
Section Paragraph #: Section 5.1.3
Drawing #:
Zone Location:

Reviewer Identification: LAMBERD
Rev Comment #: 138
Comment Category: 2
Sheet #:

COMMENT

Suggest that the new container storage area not be within the main WRAP 2A facility but be provided as a small low cost out building. Storage within the facility should be limited to only a day or weeks production.

JUSTIFICATION

There is no justification for storing weeks worth of new containers near/within the expensive confines of WRAP 2A

RECOMMENDATION

Delete excessive storage area within WRAP 2A for new container storage.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: *D. Lamberd*

Assigned Category: 4
Comment Status: *closed*
ESQ Review Number:

Will be evaluated during title 1 plant layout developemnt.

Final Disposition

A-E Lead Engineer: Bowlin/Dutton

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree with WHC recommendation. No change to ACDR.

D. 14.1

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: Section 5.6.1
Drawing #:
Zone Location:

Reviewer Identification: LAMBERD
Rev Comment #: 139
Comment Category: 1
Sheet #:

COMMENT

Until regulatory analysis and solid waste disposal or A/E can provide assurance that waste will have less than 10% void volume or waste does not have to meet this requirement the containers holding compacted drums will have to be filled with grout.

JUSTIFICATION

EP-0063 requires that container has less than 10% voids.

RECOMMENDATION

Provide capability and show that these drums go to the vibro grout fill station before shipment to disposal.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Date Assigned: February 2, 1994

Reviewer Signature: [Signature]

Assigned Category: 1

Comment Status: Closed

ESQ Review Number:

Agree with comment, Show routing these drums to vibro grout station prior to exiting the plant.

Final Disposition

A-E Lead Engineer: Voke

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: Section 6.2.2.1
Drawing #:
Zone Location:

Reviewer Identification: LAMBERD
Rev Comment #: 140
Comment Category: 1
Sheet #:

COMMENT

A statment must be added for structural considerations required for the exhanst stack since it will be located well above ground level and not be supported as is usually designed.

JUSTIFICATION

Structural design considerations are more complex for a stack mounted on a less rigid support structure.

RECOMMENDATION

Provide what design considerations will be required for structural support of the exhaust stack design from a flexible platform such as a second story floor.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: [Signature]

Assigned Category: 1
Comment Status: closed
ESQ Review Number:

Add structural considerations for stack or evaluate placing the stack at ground level and show structural details during title 1.

Final Disposition

A-E Lead Engineer: Trimbell

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Added paragraph 6.2.2.1.10 as suggested.

D-143

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: <u>WRAP 2A ACDR</u>	Reviewer Identification: <u>LAMBERD</u>
Volume #: <u>I</u>	Rev Comment #: <u>141</u>
Section Paragraph #: <u>Section 6.2.2.2 item 9</u>	Comment Category: <u>1</u>
Drawing #:	Sheet #:
Zone Location:	

COMMENT

The 10-20 psf is a snow load for roofs but is too low for equipment installations. It is also much too low if this were applied to the area where the exhaust stack will be supported. Clarify what the requirement is.

JUSTIFICATION

This number is not for equipment loads. Equipment loads are more in the range of 150 -200 psf. The loads for supporting an exhaust stack will be even higher than that.

RECOMMENDATION

Clarify what the real required loads that the facility will be design to.

WHC DISPOSITION

Assigned WHC Cog: <u>LAMBERD</u>	Assigned Category: <u>1</u>
Date Assigned: February 2, 1994	Comment Status: <u>closed</u>
Reviewer Signature: <u>[Signature]</u>	ESQ Review Number:

Clarify what the 10-20 psf loading is applicable to. Also will define what loads will be used for equipment installations.

Final Disposition

A-E Lead Engineer: <u>Trimbell</u>	Final Category: <u>1</u>
------------------------------------	--------------------------

ROM Cost Impact:

Construction Package Number:

The 10-20 psf loading is for general lighting, HVAC, conduit and additional small bore piping that may be added in the future. Equipment with significant identifiable weight will be addressed individually during design and must be addressed individually if added in the future (this loading is per 6430.1A). Added paragraph 6.2.2.2.10 to clarify.

**WRAP 2A ACDR Review
Design Review Comment Submittal**

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: Section 6.2.2.3
Drawing #:
Zone Location:

Reviewer Identification: LAMBERD
Rev Comment #: 142
Comment Category: 1
Sheet #:

COMMENT

Provide design features that will applied to support the exhaust stack from a flexible second floor.

JUSTIFICATION

Other facility design features were specified. Location of stack os not in a conventual loaction.

RECOMMENDATION

Suggest that design features that will be provided to support the stack be provided in this section.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: [Signature]

Assigned Category: 4
Comment Status:
ESQ Review Number:

closed

Include design features for support the stack. Suggest reevaluation of placing stack on ground level.

Final Disposition

A-E Lead Engineer: Trimbell

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Design features for stack support cannot be described until detail design is started. No change to ACDR.

142

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: <u>WRAP 2A ACDR</u>	Reviewer Identification: <u>LAMBERD</u>
Volume #: <u>Volume 1</u>	Rev Comment #: <u>143</u>
Section Paragraph #: <u>Section 6.3.3.3 item 1d</u>	Comment Category: <u>3</u>
Drawing #:	Sheet #:
Zone Location:	

COMMENT

Correct reference for design basis accident

JUSTIFICATION

Provide correct reference

RECOMMENDATION

Change WHC 4.1 to WHC Hanford Plant Standard SDC 4.1

WHC DISPOSITION

Assigned WHC Cog: <u>LAMBERD</u>	Assigned Category: <u>3</u>
Date Assigned: February 2, 1994	Comment Status: <u>closed</u>
Reviewer Signature: <u>[Signature]</u>	ESQ Review Number:

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Please refer to comment 341. As per recommendation of 341, deleted the words "...asprescribed in WHC.....Solid Waste facility".

D-145

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR

Volume #: Volume 1

Section Paragraph #: Section 6.3.8 item 4

Drawing #:

Zone Location:

Reviewer Identification: LAMBERD

Rev Comment #: 144

Comment Category: 3

Sheet #:

COMMENT

Clarify that Decontamination solution will be selected to be non-hazardous and compatible throughout WRAP 2A.

JUSTIFICATION

If no compatible and non hazardous separate collections system will be required. If hazardous then it will have to be treated in WRAP 2A for disposal.

RECOMMENDATION

Suggest that words be corrected to reflect non hazardous compatible decontamination solutions will be used.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Date Assigned: February 2, 1994

Reviewer Signature: [Signature]

Assigned Category: 3

Comment Status: Closed

ESQ Review Number:

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR Reviewer Identification: LAMBERD
Volume #: Volume 1 Rev Comment #: 145
Section Paragraph #: Section 7.2.1.1 item 2 Comment Category: 3
Drawing #: _____ Sheet #: _____
Zone Location: _____

COMMENT

State that minimum handling is minimize personnel exposure to hazardous and radioactive materials and reduce the risk of inadvertent discharges of these materials to the environment.

JUSTIFICATION

This is bases for design

RECOMMENDATION

Add statements about minimizing potential exposure to personnel.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD Assigned Category: 3
Date Assigned: February 2, 1994 Comment Status: closed
Reviewer Signature: [Signature] ESQ Review Number: _____

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: Section 7.3 item 4
Drawing #:
Zone Location:

Reviewer Identification: LAMBERD
Rev Comment #: 146
Comment Category: 1
Sheet #:

COMMENT

Localized Confinement shall not be used for any operational activities. It is allowed for temporary maintenance activities. Please provide very clear definitions in this section as to its uses. Emphasis temporary nature.

JUSTIFICATION

Local confinement requires that administrative controls also be put in place.

RECOMMENDATION

Reword to emphasis temporary and short period of time and that administrative controls will be required for their use.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: [Signature]

Assigned Category: 1
Comment Status: closed
ESQ Review Number:

Clarify wording of local confinement.

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Revised section 7.3.1.4 per recommendation.

11-149

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: Section 7.3.1
Drawing #:
Zone Location:

Reviewer Identification: LAMBERD
Rev Comment #: 147
Comment Category: 1
Sheet #:

COMMENT

All Hazardous waste must have secondary containment at all times and that the facility itself will provide this secondary containment for all cases.

JUSTIFICATION

WAC 173-303 requires that hazardous waste must have secondary containmnet at all times.

RECOMMENDATION

Add a section that specifies secondary containmnet is provided at all times.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: [Signature]

Assigned Category: 1
Comment Status: Closed
ESQ Review Number:

Agree with comment, clarify secondary confinement issues and specify weither it is facility or other.

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Revised section 7.3.1.2 per recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR

Volume #: Volume 1

Section Paragraph #: Section 7.3.2 item 1

Drawing #:

Zone Location:

Reviewer Identification: LAMBERD

Rev Comment #: 148

Comment Category: 3

Sheet #:

COMMENT

Specify that hands on operations will only be allowed in the special waste treatment area.

JUSTIFICATION

This should be the only areas where hands on operations will be performed.

RECOMMENDATION

Specify that hands on operations will be accomplished in the special area only.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Date Assigned: February 2, 1994

Reviewer Signature: [Signature]

Assigned Category: 3

Comment Status: Closed

ESQ Review Number:

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: Volume 1
Section Paragraph #: Section 7.3.2
Drawing #:
Zone Location:

Reviewer Identification: LAMBERD
Rev Comment #: 149
Comment Category: 1
Sheet #:

COMMENT

Provide a section to describe the operations approach for the box breakdown area and what functions will be accomplished hands on and what will be done remotely.

JUSTIFICATION

An approach to operating the box breakdown area must be provided.

RECOMMENDATION

Specify how the box breakdown areas will be operated either remotely, hands on or both. If both specify what operations or conditions will be required.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: February 2, 1994
Reviewer Signature: _____

Assigned Category: 1
Comment Status: Closed
ESQ Review Number:

The suggest operating scheme for the Box Breakdown Area (i.e., personnel to routinely enter in Zone I environment) is not an accepted practise at Hanford. UE&C should address how the functions of the BBA will be performed without personnel entering the Zone I confinement and this rationale should be described in the ACDR.

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 1

ROM Cost Impact:

Construction Package Number:

The ACDR never suggested that personnel will routinely enter box breakdown area to perform process functions. Revised section 5.3.2.7 to clarify. Also see comment 122.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: Section 7.3.2
Drawing #:
Zone Location:

Reviewer Identification: LAMBERD
Rev Comment #: 150
Comment Category: 1
Sheet #:

COMMENT

Need to provide operational approach to be used in other areas of the facility. Define approach in the shipping area, sample management area, new container receiving, cure storage, incoming waste storage, HVAC, and all other areas of facility.

JUSTIFICATION

This approach will determine what design features will be required in the facility and provide approach to maintenance as well.

RECOMMENDATION

Provide operational bases for operating each of the areas in WRAP 2A.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: [Signature]

Assigned Category: 1
Comment Status: Closed
ESQ Review Number:

Agree with comment, Operational Approaches used in other areas will be provided.

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 1

ROM Cost Impact:

Construction Package Number:

This information can be located in the process description for each area or the basis of design. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: Volume 1
 Section Paragraph #: Section 8.3
 Drawing #:
 Zone Location:

Reviewer Identification: LAMBERD
 Rev Comment #: 151
 Comment Category: 1
 Sheet #:

COMMENT

In Box Breakdown area add an uncertainty for the use and need for a shredder in the box breakdown area.

JUSTIFICATION

it is not clear that a shredder is required in the box breakdown area. There are three shredders in WRAP 2A. Are they all similar or do they perform different functions.

RECOMMENDATION

Add uncertainty for evaluation of shredder in Box breakdown

WHC DISPOSITION

Assigned WHC Cog: HORGOS

Assigned Category: 1

Date Assigned: February 2, 1994

Comment Status: Open *Closed*

Reviewer Signature: *Darryl L. Lambert*

ESQ Review Number:

3/7/94
 This comment is related to Comment #133 but covers a different subject and Section of the ACDR. The "Uncertainties" Section of the ACDR should identify the potential problems that the depicted Shredder will have in processing the Waste Feeds that must be processed in the BBA (e.g., can the depicted shredder handle a 55 gallon sized monolith of solidified concrete?)

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 3

ROM Cost Impact:

Construction Package Number:

The uncertainty referred to here is already listed in section 8.3 of the ACDR. However, revised the uncertainty from a 'shredder' to a 'crusher' in concert with comment 133.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: Volume 1
Section Paragraph #: Section 8.3
Drawing #:
Zone Location:

Reviewer Identification: LAMBERD
Rev Comment #: 152
Comment Category: 2
Sheet #:

COMMENT

Add uncertainty in debris processing section to evaluate need to inert the shredder

JUSTIFICATION

It will be evaluated in title 1 design

RECOMMENDATION

Add uncertainty for evaluation in title 1

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: [Signature]

Assigned Category: 4/5
Comment Status: closed
ESQ Review Number:

This will be evaluated during title 1 design and MFD development. The need to inert shredder is also a WHC action to address in SDRD.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 4/5

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: Volume 1
Section Paragraph #: Section 8.3
Drawing #:
Zone Location:

Reviewer Identification: LAMBERD
Rev Comment #: 153
Comment Category: 2
Sheet #:

COMMENT

Add 4 more uncertainties under miscellaneous:

1. Optimization of Plant Layout and facility design
2. Transfer corridor size and relationship to WRAP 2A
3. Storage location of new containers
4. Equipment sizing during title 1 design will be based on specific processing options rather than on material balance of a 30 year average of all feeds.

JUSTIFICATION

These areas will be specifically addressd during title 1 design and evaluatiuons will be required.

RECOMMENDATION

Add these as uncertainties to be considered during title 1 design

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Date Assigned: February 2, 1994

Reviewer Signature: D. Lamberd

Assigned Category: 2

Comment Status:

ESQ Review Number:

closed

Items 1,2, and 3 will be included in uncertainties of ACDR and will be addressed in title i design. Item 4 will be covered by providing specific directions in SDRD and will be established during MFD preparation.

Final Disposition

A-E Lead Engineer: Basu

Final Category: 2/4/5

ROM Cost Impact:

Construction Package Number:

Agree. Items 1,2 & 3 (items 2 & 3 being a subset of item 1) will be included as uncertainties. WHC has action to provide direction in the SDRD for item 4 for A/E to design to.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR

Volume #: Volume 1

Section Paragraph #: Section 1.1 item 3

Drawing #:

Zone Location:

Reviewer Identification: LAMBERD

Rev Comment #: 154

Comment Category: 2

Sheet #:

COMMENT

Suggest that specific statement be made that no TRU will be accepted into WRAP 2A. Waste that has low levels of alpha is included in the projected feed however it will be below 100 nanocuries per gram quantities.

JUSTIFICATION

It must be clearly stated what the waste to be treated in WRAP 2A is.

RECOMMENDATION

Provide a statement that says no TRU will be allowed however alpha will be present.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Date Assigned: February 2, 1994

Reviewer Signature: *[Signature]*

Assigned Category: 2

Comment Status: *Closed*

ESQ Review Number:

Wording will be added to clarify the scope of waste to be treated in WRAP 2A.

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: Volume IV
 Section Paragraph #:
 Drawing #: H-2-140599
 Zone Location: Zone 3-E

Reviewer Identification: LAMBERD
 Rev Comment #: 155
 Comment Category: 2
 Sheet #: 1

COMMENT

The area between section c and d appears to be excess and could be eliminated. The crane maintenance area for the box breakdown crane should be mimimized.

JUSTIFICATION

Reduction of floor space in the main processing area will reduce the overall project cost.

RECOMMENDATION

Evaluate during title 1 if this area can be reduced. Also consider reducing the crane maintenance ara of box breakdown.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Date Assigned: February 2, 1994

Reviewer Signature: *[Signature]*

Assigned Category: 4

Comment Status:

ESQ Review Number:

closed

This will be addressed during title 1 plant layout evaluations.

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 2/4

ROM Cost Impact:

Construction Package Number:

The area between C & D was designated for failed process equipment that could not be size reduced at the present time due to the processing requirements of box breakdown. This is discussed briefly in the disposition to comment 122. Revised drawing to indicate the area use. If an alternate route can be designated for the large items of failed process equipment , then this floor area can potentially be reduced.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: Volume IV
Section Paragraph #:
Drawing #: H-2-140628
Zone Location: Zone 5-C

Reviewer Identification: LAMBERD
Rev Comment #: 156
Comment Category: 2
Sheet #: 1

COMMENT

Since the dryer cycle must occur within 40 minutes, is there a requirement for the dryer to have active cooling to ensure 40 minutes cycle time. Heating and cooling that volume of waste and equipment will be difficult in 40 minutes without some cooling either air or water.

JUSTIFICATION

Provide analysis that shows that the 40 minute cycle time can be achieved.

RECOMMENDATION

Provide analysis that cycle time can be accomplished without active cooling.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
Date Assigned: February 2, 1994
Reviewer Signature: [Signature]

Assigned Category: 2
Comment Status: Closed
ESQ Review Number:

A/E to evaluate and provide rational if the waste needs to be cooled prior to feeding to bin or P/E extruder. This may not be necessary in which case no change to design.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 4

ROM Cost Impact:

Construction Package Number:

The ACDR design does not propose that the dryer has a cooling time. This issue will be evaluated during Title design. No change to ACDR.

ok [Signature] for DL²

**WRAP 2A ACDR Review
Design Review Comment Submittal**

Document Title: WRAP 2A ACDR
Volume #: Volume IV
Section Paragraph #:
Drawing #: H-2-140628
Zone Location: Zone D-5

Reviewer Identification: LAMBERD
Rev Comment #: 157
Comment Category: 2
Sheet #: 1

COMMENT

Output screen from crusher should have a recycle line back to crusher rather than a line to the debris line. Also if screen is placed above crusher to remove non crushables or screen larger items (between 60mm and 3mm) to be crushed the crusher could be moved out of the main line and less material would have to pass through it.

JUSTIFICATION

Possible reduction in throughput required by the crusher. Having a crusher operating continuously will be noisy and require frequent maintenance where a crusher only operating for short periods of time will require less maintenance.

RECOMMENDATION

Evaluate proper placement of the screen and determine if crusher could be relocated to provide more effective use of equipment.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
Date Assigned: February 2, 1994
Reviewer Signature: [Signature]

Assigned Category: 2
Comment Status: closed
ESQ Review Number:

Agree. However this comment should be evaluated along with comment 101.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree. Revised drawing per comment. Also see disposition to comment 101.

OK [Signature] for DL^u

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #:
Drawing #: H-2-140628
Zone Location: Zone 3-D

Reviewer Identification: LAMBERD
Rev Comment #: 158
Comment Category: 1
Sheet #: 2

COMMENT

Compacted empty drums in container must be routed to vibro grout station for infilling.

JUSTIFICATION

There must be less than 10 void space in the container and placing a number of compacted drums into a square container will leave a space greater than 10% of the volume.

RECOMMENDATION

On drawing show arrow going to drawing H-2-140637.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Date Assigned: February 2, 1994

Reviewer Signature: [Signature]

Assigned Category: 1

Comment Status:

ESQ Review Number: Closed

Agree with comment, currently provide capability to fill compacted drums with grout. This comment will be combined with comment 139 for inclusion in ACDR.

Final Disposition

A-E Lead Engineer: Voke

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Revised drawing per WHC disposition.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: Volume IV
 Section Paragraph #:
 Drawing #: H-2-140628
 Zone Location: 7.6 -D

Reviewer Identification: LAMBERD
 Rev Comment #: 159
 Comment Category: 2
 Sheet #: 3

COMMENT

Suggest that the particulate drums collected form debris line be sent to the sample management area before sent to W-112. This way a sample can be obtained and analysis performed to determine treamtent required. Drums can then be staged in W-112 for proper treatment.

JUSTIFICATION

These drums will contain particulate that has been removed form debris and will have to be sampled to determine characteristics before treatment.

RECOMMENDATION

Change note on drawing to say send drums to sample management area for sampling.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
 Date Assigned: February 2, 1994
 Reviewer Signature: *D. Lamberd*

Assigned Category: 1/5
 Comment Status:
 ESQ Review Number: *Closed*

This will be combined with the resolution of comment 134. It will also be included in the revision of the SDRD.

Final Disposition

A-E Lead Engineer: Voke

Final Category: 1/5

ROM Cost Impact:

Construction Package Number:

Agree. Revised drawing per WHC recommendation. WHC has action to revise SDRD.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: Volume 4
Section Paragraph #:
Drawing #: H-2-140631
Zone Location: 6-A to F

Reviewer Identification: LAMBERD
Rev Comment #: 160
Comment Category: 2
Sheet #: 1

COMMENT

Combine lifts for particulate and debris into a single lift. Move the entire specila waste processing to a seperate enclosure and eliminate the drum lift for that enclosure. By lowering the special waste the box lift for the special waste could also be eliminated.

JUSTIFICATION

Any reduction in equipment will result in a decrease in the total project cost.

RECOMMENDATION

Eliminate one lift and combine particulate and debris drum lifts.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Assigned Category: 4

Date Assigned: February 2, 1994

Comment Status:

Reviewer Signature: *D. Lambert*

ESQ Review Number: *Closed*

This will be evaluated during plant layout development as part of title 1 design.

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 4

ROM Cost Impact:

Construction Package Number:

This will be investigated during Title I design. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: Volume IV
Section Paragraph #:
Drawing #: H-2-140631
Zone Location: Change rooms on all levels

Reviewer Identification: LAMBERD
Rev Comment #: 161
Comment Category: 2
Sheet #: 2,3, and 4

COMMENT

Eliminate one airlock and shower capabilities in each of the change rooms. on all levels. If required suggest that the various ares be relocated to allow a single Zone 1 entry change area. There could a single common change room, shower area and corridors or stairs to the airlocks.

JUSTIFICATION

Reduction in floor space and features will result in a cost savings.

RECOMMENDATION

Evaluate ways to combine areas and reduce change room floor space.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Date Assigned: February 2, 1994

Reviewer Signature: *[Signature]*

Assigned Category: 2

Comment Status:

ESQ Review Number:

Closed

UE&C will evaluate to determine if changes are appropriate for inclusion in the ACDR. Initial results indicate that showers and change rooms can be deleted.

Final Disposition

A-E Lead Engineer: Bowlin

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree. Deleted showers and one airlock at each location.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #:
Drawing #: H-2-140631
Zone Location: General

Reviewer Identification: LAMBERD
Rev Comment #: 162
Comment Category: 1
Sheet #: 5

COMMENT

Since the top of the tanks are higher than the bottom of the process equipment, how is liquids transferred from the process areas to the waste collection system. Is there pumps or other devices and on which drawing are these features shown?

JUSTIFICATION

The prepared method is to allow all liquids to gravity drain to the collection system.

RECOMMENDATION

Suggest lowering the tanks and placing them under and close to the process

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: [Signature]

Assigned Category: 1
Comment Status: Closed
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Chapin

Final Category: N/A

ROM Cost Impact:

Construction Package Number:

This is a closed comment. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: Volume IV
Section Paragraph #:
Drawing #: H-2-140632
Zone Location: one 6-C

Reviewer Identification: LAMBERD
Rev Comment #: 163
Comment Category: 2
Sheet #: 1

COMMENT

Instead of using drum lifts, why not dump out waste onto sort table at ground level and use conveyors to raise waste to required height?

JUSTIFICATION

This will keep all containers at floor level and eliminate need for drum and product container lifts in the facility. Drum compactor could also be located on ground level. This will reduce the required reinforced upper floors for equipment loads.

RECOMMENDATION

Evaluate preferred alternate plant layout to eliminate drum and product lifts.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Date Assigned: February 2, 1994

Reviewer Signature: *D. Lamberd*

Assigned Category: 4

Comment Status:

ESQ Review Number: *Closed*

UE&C will evaluate during title 1 plant layout development.

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Disagree. This is contrary to VE assessment results, will require additional equipment to make transfers between equipment, and will require a larger building footprint. The empty drum compactor requires very little in terms of floor reinforcement.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: 6.2.1
Drawing #:
Zone Location:

Reviewer Identification: LEE
Rev Comment #: 164
Comment Category: 2
Sheet #:

COMMENT

6.2.1 states "...a (one) general contractor to perform all construction... and all procurement activities." 6.2.2 states "Procurement and installation of major equipment are... implemented by separate vendors." Need to clarify proposed contracting methods (vendors subcontracted to GCC vs. separate construction/procurement contract). Could have significant schedule impact considering the differences between a "build to print" and a "design/build" contract.

JUSTIFICATION

Clear definition of contracting methods is required to determine the level of detail for design packages. Contracting methods must be pre-determined to format design packages to appropriate levels of detail (build to print vs. design/build/install). Clarification is required to determine schedule impact to both design and construction.

RECOMMENDATION

Provide clarification in Section 6.2 to specify detailed design/construction contracting approach. Provide reference to future project documents which will document this information (KEH Construction Management/Procurement Plan, WHC Project Management Plan...). Revise Construction Schedule to reflect appropriate durations for determined approach.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 2, 1994
Reviewer Signature: F.H. Lee

Assigned Category: 2
Comment Status: closed
ESQ Review Number: N/A

Accept recommendation. See other similar comments. The design and construction package approach will be discussed the week of 2/14/94.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 2

ROM Cost Impact:

Construction Package Number:

- 1) Agreed to 3 new definitions for Design/Construction Package classification
(Performance Spec, Design/Build and Build-to-Print)
• Buckle to revise classification matrix.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: 6.0
Drawing #:
Zone Location:

Reviewer Identification: LEE
Rev Comment #: 165
Comment Category: 3
Sheet #:

COMMENT

Section 6.0, para 1., last sentence makes incorrect reference to Table 5.3 for the structure of the schedule.

JUSTIFICATION

Table 5.3 is by UE&C code of accounts, not relative to construction schedule.

RECOMMENDATION

Revise reference from Table 5.3 to Table 5-5 Construction WBS.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 2, 1994
Reviewer Signature: F. H. Lee

Assigned Category: 3
Comment Status: closed
ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Accept WHC disposition. UE&C to revise reference.

- 2) Agreed to review & revise schedule per these definitions.
 - Detail out "tough stuff" requiring specific visibility in the schedule.
- 3) Clarify words in 6.2.2 - I.D. separate subcontractors.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: 3.6.4.2.3
Drawing #:
Zone Location:

Reviewer Identification: LEE
Rev Comment #: 166
Comment Category: 3
Sheet #:

COMMENT

3.6.4.2.3 items 1 & 2 refer to "special equipment provided by the Operating Contractor" but no special equipment is identified in the ACDR.

JUSTIFICATION

No definition is provided for what "special equipment" procurements (if any) are anticipated.

RECOMMENDATION

Provide clarification/definition for WHC procurement of special equipment and revise items 1 & 2, as required.

WHC DISPOSITION

Assigned WHC Cog: PAULY
Date Assigned: February 2, 1994
Reviewer Signature: [Signature]

Assigned Category: 3
Comment Status: Q
ESQ Review Number:

Closed

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Accept WHC disposition. UE&C to research I.D. if it exists. If not, will delete.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: <u>WRAP 2A ACDR</u>	Reviewer Identification: <u>LEE</u>
Volume #: <u>II</u>	Rev Comment #: <u>167</u>
Section Paragraph #: <u>Figure 7-2, pp 5, 6</u>	Comment Category: <u>2</u>
Drawing #:	Sheet #:
Zone Location:	

COMMENT

Procurement/fabrication durations are understated if any design/build subcontracts are anticipated. Overall equipment procurement/installation durations improved 6 mo from CDR schedule without obvious changes in procurement methods. Schedule tends to mask over a significant activity by not identifying design/build equipment.

JUSTIFICATION

Design/build subcontracts must be specifically considered on schedules to accurately reflect construction durations and interfaces. Extended durations required for engineered equipment could impact critical path.

RECOMMENDATION

Provide clarification on anticipated contracting methods by identifying design/build equipment. Revise schedules to reflect additional time, as required.

WHC DISPOSITION

Assigned WHC Cog: <u>SWITA</u>	Assigned Category: <u>2</u>
Date Assigned: <u>February 2, 1994</u>	Comment Status: <u>Closed</u>
Reviewer Signature: <u>J. H. [Signature]</u>	ESQ Review Number: <u>N/A</u>

Accept recommendation. See other similar comments. The design and construction package approach will be discussed the week of 2/14/94.

Final Disposition

A-E Lead Engineer: <u>McClendon</u>	Final Category: <u>2</u>
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ROM Cost Impact:	Construction
Package Number:	

Accept WHC disposition. See disp. on #164. Revise schedule accordingly.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: II
 Section Paragraph #: 6.2.1
 Drawing #:
 Zone Location:

Reviewer Identification: LEE
 Rev Comment #: 168
 Comment Category: 5
 Sheet #:

COMMENT

The current general assumption is for the project to be constructed under one General Construction Contractor (GCC), who will subcontract any specialty (design/build) engineered equipment. While it is convenient to believe this will work, due consideration must be made for the complexity of specialty equipment and WHC acceptance of imposed contract limitations. Engineered equipment must be individually evaluated to determine if the "limited control" aspect is acceptable.

JUSTIFICATION

"Making the GCC responsible" is only as good as "knowing what you want" in the first place. Complexity of the design must be a consideration in determining method of contracting. As learned from WRAP 1, there are significant differences among GCC subcontracts, individual fixed-price construction contracts, and WHC negotiated-price contracts.

RECOMMENDATION

Perform detailed evaluation of potential engineered equipment and individually determine appropriate contracting methods. Document findings in the PMP (or KEH Procurement/CM Plan) and utilize decisions in defining A/E Title I & II design activities. The Title II design package(s) must be formatted to accommodate predetermined contracting methods.

WHC DISPOSITION

Assigned WHC Cog: SWITA
 Date Assigned: February 2, 1994
 Reviewer Signature: F. Lee

Assigned Category: 5
 Comment Status:
 ESQ Review Number: N/A

Accept recommendation. See other similar comments.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 5

ROM Cost Impact:
 Package Number:

Construction

WHC will evaluate and document accordingly. Also, see disposition on comment #164.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 5.7.3.7
Drawing #:
Zone Location:

Reviewer Identification: NASH
Rev Comment #: 169
Comment Category: 3
Sheet #:

COMMENT

Second sentence: It's not clear what is meant by this. There's the implication that techniques will be applied that make samples of these various wastes think they've been taken from a drum.

JUSTIFICATION

There could be a complication in equipment to be used, or the possibility that sample quality or accuracy could be at risk.

RECOMMENDATION

Clarify text.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
Date Assigned: February 2, 1994
Reviewer Signature: _____

Assigned Category: 3
Comment Status: *closed*
ESQ Review Number: _____

Incorporate comment as recommended.

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text to clarify. Exact method of extracting such samples will be a Title I activity.

OK [signature] for CRN
crn

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 6.2.2.1.4
Drawing #:
Zone Location:

Reviewer Identification: NASH
Rev Comment #: 170
Comment Category: 2
Sheet #:

COMMENT

The design has a multiplicity of roof elevations, indicating expense and extra difficulty in leak tight provisions, etc.

JUSTIFICATION

Cost can be lowered by simpler design.

RECOMMENDATION

Analyse roof to reduce elevation changes.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: *crush*

Assigned Category: 4
Comment Status:
ESQ Review Number:

Closed

This will be addressed during plant layout development in title 1.

Final Disposition

A-E Lead Engineer: Bowlin

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree With WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 6.2.2.1.7
Drawing #:
Zone Location:

Reviewer Identification: NASH
Rev Comment #: 171
Comment Category: 3
Sheet #:

COMMENT

Foundation supports for the stack are not indicated.

JUSTIFICATION

The stack must be supported on adequate foundations.

RECOMMENDATION

Show how the stack will be supported.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: *crush*

Assigned Category: 3
Comment Status:
ESQ Review Number:

Closed

Final Disposition

A-E Lead Engineer: Trimbell

Final Category: 4

ROM Cost Impact:

Construction Package Number:

See Comment 142 for disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 6.2.3.5.2.b
Drawing #:
Zone Location:

Reviewer Identification: NASH
Rev Comment #: 172
Comment Category: 2
Sheet #:

COMMENT

The computer room's cable access area is shown as a depressed floor. It's much better to show this as a raised floor.

JUSTIFICATION

The depressed floor is a water trap, and is more expensive.

RECOMMENDATION

Show a raised floor.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Date Assigned: February 2, 1994

Reviewer Signature: *crush*

Assigned Category: 2

Comment Status:

ESQ Review Number:

closed

UE&C will address as part of ACDR and provide recommendation.

Final Disposition

A-E Lead Engineer: Bowlin

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree. Revised H-2-140716 to show an accessible raised floor system on top of slab. Also revised paragraph 6.2.3.5.2.a.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 1
 Section Paragraph #: 6.2.3.5.6.b
 Drawing #:
 Zone Location:

Reviewer Identification: NASH
 Rev Comment #: 173
 Comment Category: 2
 Sheet #:

COMMENT

This control area is only mentioned in the text. Not shown on drawings.

JUSTIFICATION

Space allocation is important enough to show, state where/how.

RECOMMENDATION

Add designation of local controls area/space and pertinent accommodations needed.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
 Date Assigned: February 2, 1994
 Reviewer Signature: *crush*

Assigned Category: 2
 Comment Status:
 ESQ Review Number: *closed*

UE&C will evaluate for ACDR inclusion.

Final Disposition

A-E Lead Engineer: Bowlin

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised paragraph 6.2.3.5.6.b to agree with the drawing which labeled this area as the instrument and compressor room.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 1
 Section Paragraph #: 6.2.3.5.8
 Drawing #:
 Zone Location:

Reviewer Identification: NASH
 Rev Comment #: 174
 Comment Category: 2
 Sheet #:

COMMENT

The transfer corridor @ 40-ft as shown cut through the entire building is very expensive real estate. Only about 15- to 18-ft width is actually needed for AGV passage and turning. A least cost approach would be a light duty lean-to abutting the main building to house AGV transfer.

JUSTIFICATION

Design shown is unnecessarily expensive.

RECOMMENDATION

Recast the design to less expensive transfer corridor.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
 Date Assigned: February 2, 1994
 Reviewer Signature: *[Signature]*

Assigned Category: 5
 Comment Status:
 ESQ Review Number:

closed

WHC will provide specific guidance in the SDRD.

Final Disposition

A-E Lead Engineer: Bowlin

Final Category: 5

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 6.2.3.5.9.a
Drawing #:
Zone Location:

Reviewer Identification: NASH
Rev Comment #: 175
Comment Category: 2
Sheet #:

COMMENT

The liquid waste tanks' depressed floors present drainage/sump/cleanout problems.

JUSTIFICATION

An alternative design would eliminate these problems.

RECOMMENDATION

Relocate tanks to intermediate level that allows gravity drainage to and from the tanks for cleanout, without the need for sump pump/cleanout problems.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994

Assigned Category: 1
Comment Status: Closed

Comment closed. This is a duplicate of comment #100.

Reviewer Signature: *[Signature]* ESQ Review Number:

Final Disposition

A-E Lead Engineer: Chapin/Bowlin

Final Category: N/A

ROM Cost Impact:

Construction Package Number:

This is a closed comment. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 6.2.3.6.1
Drawing #:
Zone Location:

Reviewer Identification: NASH
Rev Comment #: 176
Comment Category: 2
Sheet #:

COMMENT

The three story SWP design shown is unnecessarily expensive. It shows both going high and going wide with the building.

JUSTIFICATION

Much cost can come out of this over generous building.

RECOMMENDATION

Go either higher, skillfully, or wider, but not both. The expensive transfer corridor can be eliminated (see comment above), and both the north and east column line bays can be eliminated if the interior space is used to advantage.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature:

Assigned Category: 3
Comment Status: Closed
ESQ Review Number:

There is no bases for the comment and will not be considered.

Final Disposition

A-E Lead Engineer: Bowlin

Final Category: N/A

ROM Cost Impact:

Construction Package Number:

This is a closed comment requiring no action from any party.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 6.2.3.6.6
Drawing #:
Zone Location:

Reviewer Identification: NASH
Rev Comment #: 177
Comment Category: 2
Sheet #:

COMMENT

The personnel elevator has been found too frilly by DOE in the past.

JUSTIFICATION

Unjustified expense.

RECOMMENDATION

Stairs can be used, and people use of freight elevators has been acceptable.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: *crush*

Assigned Category: 2
Comment Status:
ESQ Review Number: *Closed*

UE&C will address and provide recommendation.

Final Disposition

A-E Lead Engineer: Bowlin

Final Category: 2/5

ROM Cost Impact:

Construction Package Number:

Agree. Deleted personnel elevator from drawings. Also deleted paragraph 6.2.3.6.6. WHC has action to add requirement in SDRD per ANSI A17.1, Rule 207.4 for employee use of freight elevator upon approval from authority having jurisdiction.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #:
Section Paragraph #:
Drawing #: H-2-140713
Zone Location: D1

Reviewer Identification: NASH
Rev Comment #: 178
Comment Category: 2
Sheet #: 1

COMMENT

Full complement of new drums and boxes stored inside this process building is unnecessarily expensive and should not be included in the design.

JUSTIFICATION

Major cost saving possible.

RECOMMENDATION

Include new box/drum storage in W-112, or abut a simple sheet metal warehouse to WRAP-2A for this purpose.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD Assigned Category: 2
Date Assigned: February 2, 1994 Comment Status: Closed
Comment closed. This is a duplicate of comment #138.

Reviewer Signature: *crush* ESQ Review Number:

Final Disposition

A-E Lead Engineer: Dutton/Bowlin Final Category: 4

ROM Cost Impact:

Construction Package Number:

See comment 138 for disposition.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #:
Section Paragraph #:
Drawing #: H-2-140713
Zone Location: H3

Reviewer Identification: NASH
Rev Comment #: 179
Comment Category: 2
Sheet #: 1

COMMENT

The area indicated on other drawings for the stack sits right on top of the open area of the transfer corridor, and no indication of how structural support is provided.

JUSTIFICATION

Stack support is essential.

RECOMMENDATION

Show stack support.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD Assigned Category: 1
Date Assigned: February 2, 1994 Comment Status: Closed
Comment closed. This is a duplicate of comment #140.

Reviewer Signature: ESQ Review Number:

Final Disposition

A-E Lead Engineer: Trimbell Final Category: 1

ROM Cost Impact:

Construction Package Number:

This is a closed comment. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #:
Section Paragraph #:
Drawing #: H-2-140713
Zone Location: L2

Reviewer Identification: NASH
Rev Comment #: 180
Comment Category: 2
Sheet #: 1

COMMENT

The 40-ft transfer corridor passing through the building is not cost effective.

JUSTIFICATION

Cost can be lowered.

RECOMMENDATION

Place simple, 15-18 ft transfer corridor outside, abutting this building on the east side.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: *ernash*

Assigned Category: 5
Comment Status:
ESQ Review Number:

Closed

WHC will provide specific guidance in SDRD Revision.

Final Disposition

A-E Lead Engineer: Bowlin

Final Category: 5

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. This is a current SDRD requirement. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #:
Section Paragraph #:
Drawing #: H-2-140713
Zone Location: L5

Reviewer Identification: NASH
Rev Comment #: 181
Comment Category: 2
Sheet #: 1

COMMENT

Sample management space is poorly used.

JUSTIFICATION

Costs can be lowered.

RECOMMENDATION

Relocate sample management to the area of L3-L4 to J3-J4; Place liquid waste storage tanks in J3-J4 to F3-F4. Box breakdown can be relocated to E3-E4 to B3-B4; and two bays can come off the east side of the building.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: *[Signature]*

Assigned Category: 4
Comment Status:
ESQ Review Number:

closed

Space allocations and positioning will be evaluated in title 1 design.

Final Disposition

A-E Lead Engineer: Dutton/Voke

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #:
Section Paragraph #:
Drawing #: H-2-140713
Zone Location: A9

Reviewer Identification: NASH
Rev Comment #: 182
Comment Category: 2
Sheet #: 1

COMMENT

This entire bay along the west side of the building can be cut out.

JUSTIFICATION

Cost reduction.

RECOMMENDATION

Eliminate bay, use remaining interior space more effectively.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: *crush*

Assigned Category: 4
Comment Status:
ESQ Review Number: *closed*

Plant layout will be evaluated in title 1 design.

Final Disposition

A-E Lead Engineer: Bowlin

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree with WHC recommendation. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #:
Section Paragraph #:
Drawing #: H-2-140713
Zone Location: J9

Reviewer Identification: NASH
Rev Comment #: 183
Comment Category: 1
Sheet #: 1

COMMENT

Lavoatory space inside the SWP area are not allowed by 6430.1A, etc.

JUSTIFICATION

Must meet Criteria.

RECOMMENDATION

Eliminate this feature.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Comment closed. This is a duplicate of comment #25.

Assigned Category: 1
Comment Status: Closed

Reviewer Signature: *crush*

ESQ Review Number:

Final Disposition

A-E Lead Engineer: Bowlin

Final Category: 1

ROM Cost Impact:

Construction Package Number:

See comment 25 for disposition.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #:
Section Paragraph #:
Drawing #: H-2-140716
Zone Location: F9

Reviewer Identification: NASH
Rev Comment #: 184
Comment Category: 2
Sheet #: 1

COMMENT

The control room cable access space is achieved by depressing the floor.

JUSTIFICATION

Water trap.

RECOMMENDATION

Design change to raised floor over slab common to rest of building.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: *[Signature]*

Assigned Category: 2
Comment Status:
ESQ Review Number: *closed*

UE&C will address in ACDR and combine resolution with comment #172.

Final Disposition

A-E Lead Engineer: Bowlin

Final Category: 2

ROM Cost Impact:

Construction Package Number:

See response to comment 172 for disposition.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: N/A
Section Paragraph #: N/A
Drawing #: H-2-140666
Zone Location: B5

Reviewer Identification: NESTER
Rev Comment #: 185
Comment Category: 2
Sheet #: 1

COMMENT

Regarding the cure storage area, there appears to be no readily available access to individual product containers for inspections, or a way to isolate a product container in case a problem arises (ie: rupture, leaks...ect). Also, if the powered roller conveyer failed loaded with product containers, how could maintenance be performed on the equipment (manual off-loading of conveyer)?

JUSTIFICATION

Inspection/isolation of curing product containers may need to be performed; thus access to each containers is needed and a readily available way to isolate a ruptured/leaking product container is also needed.

RECOMMENDATION

Suggest reevaluating the cure storage area for improved access around the containers, container mobility in case of leaks, and maintenance capabilities of the conveyor system when failure occurs.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: _____

Assigned Category: 2
Comment Status: _____
ESQ Review Number: N/A

closed

UE&C will evaluate and provide evaluation as part of ACDR.

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Access to cure storage area will be restricted. Leak detection will be checked by visual observation at the fill station and a secondary check can be performed with the fill equipment instrumentation. If a container subsequently leak in the cure storage area, it will only be detected at the inspection area prior to leaving the facility. Failure of the powered rollers will necessitate manual intervention to empty the store before maintenance operations can be undertaken. The conveyors can be spaced differently to allow better access, and this will be investigated at Title design. No change to ACDR.

*D. Nester agreed per telcon
w/ D.H.L.*

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 4.1.2; 4.2.11
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 186
Comment Category: 5
Sheet #:

COMMENT

Text states that "waste will always be received from...W-112" - Westinghouse needs to verify whether incoming boxed waste will be received via the W-112 transfer corridor.

JUSTIFICATION

Boxes are not stored in the W-112 building serviced by the transfer corridor. At the expected receipt rate of one box per week, it may be more desirable to bring boxes from the W-112 box storage building directly to the WRAP 2A loading dock rather than through the transfer corridor.

RECOMMENDATION

After verification, change text accordingly.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: *[Signature]* 4/18/94

Assigned Category: 5
Comment Status:
ESQ Review Number:

Closed

WHC will provide directions on how waste is to be received in WRAP 2A.

Final Disposition

A-E Lead Engineer: Basu

Final Category: 5

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR at this time.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 4.2.10
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 187
Comment Category: 2
Sheet #:

COMMENT

Text states that "...all incoming waste drums are...repacked in new product containers in preparation for the immobilization/encapsulation process." This statement is incorrect - only debris waste is repackaged in new product containers prior to immobilization/encapsulation.

JUSTIFICATION

Particulate/sludge waste is not repackaged into new product containers "in preparation for the immobilization/encapsulation process."

RECOMMENDATION

Correct text.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: 7NPJ 1/12/94

Assigned Category: 2
Comment Status: closed
ESQ Review Number:

Text in ACDR will be revised to address issue. Wording will be clarified.

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Deleted the words "....and repacked in new product containers....".

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 1
 Section Paragraph #: 4.2.10
 Drawing #:
 Zone Location:

Reviewer Identification: PAULY
 Rev Comment #: 188
 Comment Category: 2
 Sheet #:

COMMENT

Text states that special waste deals with "...wasteforms that need pretreatment and stabilization prior to being size-reduced and/or immobilized."

JUSTIFICATION

This is not correct - size reduction is a method of pretreatment, and waste is not size reduced after being stabilized.

RECOMMENDATION

Correct text to show size reduction as a pretreatment method and to identify that size reduction does not occur after stabilization. Provide some discussion of the context or definition with which the terms "stabilization" and "immobilized" are being used (each has different meanings to individual regulatory agencies and requirement codifications).

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Date Assigned: February 2, 1994

Reviewer Signature: INP 4/18/94

Assigned Category: 2

Comment Status:

ESQ Review Number: closed

Text of ACDR will be reworded to clarify.

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised section 4.2.10 to clarify special waste process.

**WRAP 2A ACDR Review
Design Review Comment Submittal**

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 6.3.3.3.2b
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 189
Comment Category: 2
Sheet #:

COMMENT

The text identifies use of a "second" Zone 1 exhaust system for enclosures "where VOC's may be released" and states that this will be a redundant system. This appears to be an unmanageable system.

JUSTIFICATION

It is highly unlikely that and an arrangement with two separate Zone 1 exhaust systems and a single Zone 1 supply system can control pressure differential in connected Zone 1 enclosures. Also, no significant sources of VOC's have been identified in the WRAP 2A source term

RECOMMENDATION

Use a single Zone 1 exhaust system.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: February 2, 1994
Reviewer Signature: MP 1 3/4/94

Assigned Category:
Comment Status: O/EN cat 4
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Gehret

Final Category: 4

ROM Cost Impact:

Construction Package Number:

See comment # 112. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 4.5.4
Drawing #: H-2-14068
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 190
Comment Category: 2
Sheet #: 4

COMMENT

Text in volume 1 states that overhead crane in box breakdown will be used to pick incoming waste off the inlet conveyor in the box breakdown enclosure - yet the crane is not identified on the PFD as major process equipment.

JUSTIFICATION

If the crane is necessary to accomplish the intended mission of the Box Breakdown area, it is process equipment and should therefore be identified on the PFD as significant equipment, with corresponding tag and process COS data sheet.

RECOMMENDATION

Add equipment tag to Box Breakdown crane and provide process COS data sheet for crane.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Date Assigned: February 2, 1994

Reviewer Signature: [Signature]

Assigned Category: 2

Comment Status: Closed

ESQ Review Number: [Signature]

Evaluation will be performed and addressed in ACDR.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 4

ROM Cost Impact:

Construction Package Number:

This level of design will be shown in the Title I design. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 4.5.5.c
Drawing #: H-2-140632
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 191
Comment Category: 2
Sheet #: 2

COMMENT

The debris shredder outlet chute connects with the non-shreddable items loading chute; the petal grab cannot operate simultaneously with the shredder. Any time that the petal grab is lowering items or retracting through the chute is time unavailable for the shredder to operate (this time is "nil" according to Time & Motion study).

JUSTIFICATION

The petal grab cannot be operating while the shredder is discharging into the same chute.

RECOMMENDATION

A new method for direct repackaging non-shreddable items (that does not impact shredder operation and does not require a 40 vertical foot lift) would appear to be the best solution.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: 7/12/94

Assigned Category: 4
Comment Status: Closed
ESQ Review Number:

This will be evaluated during title 1 plant layout and resolution defined.

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 1
 Section Paragraph #: 5.5.4 & 5.9.3
 Drawing #:
 Zone Location:

Reviewer Identification: PAULY
 Rev Comment #: 192
 Comment Category: 2
 Sheet #:

COMMENT

Text refers to shredding operation having potential to "...ignite a combustible gas mixture" and mentions "flammable solids" - it should refer to potential for starting fire from heat generation with combustible materials. Terms such as "combustible gas" and "flammable solids" are incorrect and misleading.

JUSTIFICATION

The real safety consideration is with heat generation from the shredding causing combustible materials to catch on fire - there is no reason to believe that there will be any "combustible gas mixtures" or "flammable solids."

RECOMMENDATION

Change text as indicated.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
 Date Assigned: February 2, 1994
 Reviewer Signature: 7N21 1/18/94

Assigned Category: 3
 Comment Status:
 ESQ Review Number:

Closed

Incorporate Comment as recommended.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text as noted in comment 44.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 1
 Section Paragraph #: 5.5.4
 Drawing #:
 Zone Location:

Reviewer Identification: PAULY
 Rev Comment #: 193
 Comment Category: 2
 Sheet #:

COMMENT

Text refers to use of a level detector for monitoring fill of debris into product boxes - it would be better to use CCTV or direct viewing.

JUSTIFICATION

It will be extremely difficult to find a level detector for monitoring debris level.

RECOMMENDATION

Add CCTV camera and/or direct viewing and delete reference to level detector for debris filling.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
 Date Assigned: February 2, 1994
 Reviewer Signature: WRP 1 11/12/94

Assigned Category: 4
 Comment Status:
 ESQ Review Number:

closed

This is an important point for detailed design. Do not necessarily want to close on the recommendation provided, but keep it open as an action for the designer to pursue (along with any WHC testing required.)

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Disagree. A level detector will be more accurate in determining when the product container is full. Operators will not always make the correct decision resulting in containers being overfilled.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 5.7.1.4.c
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 194
Comment Category: 2
Sheet #:

COMMENT

Text refers to "Listed heavy metals which may be present in the waste..." - should read "toxic heavy metals."

JUSTIFICATION

The term "listed" has very specific regulatory meaning in regards to RCRA regulated waste; it is being used incorrectly here.

RECOMMENDATION

Change text as indicated.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
Date Assigned: February 2, 1994
Reviewer Signature: [Signature] 7/13/94

Assigned Category: 3
Comment Status:
ESQ Review Number:

Closed

Incorporate comment as suggested.

Final Disposition

A-E Lead Engineer: Chapin

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text for WHC disposition.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 1.7.1.4.e
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 195
Comment Category: 2
Sheet #:

COMMENT

Text refers to ion exchange resins being "dewatered" prior to receipt at WRAP 2A - should read "drained" instead of "dewatered."

JUSTIFICATION

Current text is inconsistent with Feed Specification and gives incorrect perception that resins have been dewatered (a more rigorous treatment than draining).

RECOMMENDATION

Change text as indicated.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: [Signature]

Assigned Category: 2
Comment Status:
ESQ Review Number: Closed

Text in ACDR will be revised per the comment.

Final Disposition

A-E Lead Engineer: Chapin

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree. Revised text (reference should have been 5.7.1.4.e) per WHC disposition.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 1
 Section Paragraph #: 5.7.1.4.e
 Drawing #:
 Zone Location:

Reviewer Identification: PAULY
 Rev Comment #: 196
 Comment Category: 2
 Sheet #:

COMMENT

Text refers to ion exchange resins being "loaded" with hazardous metals. Although this term is familiar to engineers that work with ion exchange, the term "loaded" may give incorrect impressions to readers with less technical backgrounds.

JUSTIFICATION

Even if the resins are received in a spent (or "loaded") state, the resins may hold onto the metals well enough that they may still not be toxic for characteristic metals.

RECOMMENDATION

Change "will be loaded" to a similar term such as "may be characteristic for toxic metals."

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT Assigned Category: 3
 Date Assigned: February 2, 1994 Comment Status:
 Reviewer Signature: [Signature] ESQ Review Number: 7119/54

Closed

Incorporate comment as suggested.

Final Disposition

A-E Lead Engineer: Chapin Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC disposition.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 5.7.3.4
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 197
Comment Category: 2
Sheet #:

COMMENT

Text refers to PE/waste filling of containers being "...monitored visually..."
- please indicate whether this will be by direct viewing or by CCTV.

JUSTIFICATION

It is appropriate to indicate this type of control philosophy at the current stage of design.

RECOMMENDATION

Add descriptive text as indicated.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
Date Assigned: February 2, 1994
Reviewer Signature: [Signature] 1/18/94

Assigned Category: 3
Comment Status:
ESQ Review Number:

Closed

Incorporate Comment as indicated

Final Disposition

A-E Lead Engineer: Chapin

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text to indicate direct viewing and/or CCTV.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 5.7.3.7
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 198
Comment Category: 2
Sheet #:

COMMENT

Text refers to sampling of extruder offgas condensate for "volatile organics or mercury compounds..." - specific mention of mercury compounds leads the reader to believe that mercury compounds are expected to vaporize and that no other volatile inorganics are expected - this is an assumption that may be misleading.

JUSTIFICATION

The only waste stream identified for treatment with polyethylene that is coded for mercury is stream 2A. Since this stream came from a thin film evaporator, it is unlikely to contain volatile mercury compounds. Specific mention of mercury in the extruder condensate is misleading and probably erroneous.

RECOMMENDATION

Remove mention of "mercury compounds" regarding the extruder condensate stream.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT Assigned Category: 2
Date Assigned: February 2, 1994 Comment Status:
Reviewer Signature: 7 NPA 4/13/94 ESQ Review Number:

Closed

Incorporate Comment as suggested.

Final Disposition

A-E Lead Engineer: Chapin

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 5.8.3.5 & 5.8.4.5
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 199
Comment Category: 2
Sheet #:

COMMENT

Text identifies the use of a filling lance for loading liquid grout into containers, but does not mention method for venting container while loading.

JUSTIFICATION

Without venting, container would pressurize which could cause a release of radioactivity. If it is intended to use a separate lance to vent container back into enclosure, this should be identified.

RECOMMENDATION

Amend text as requested.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT
Date Assigned: February 2, 1994
Reviewer Signature: PAULY 1/19/94

Assigned Category: 2
Comment Status:
ESQ Review Number:

closed

Incorporate comment as suggested - verify that this is accounted for in the design.

Final Disposition

A-E Lead Engineer: Voke

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 1
 Section Paragraph #: 5.9.4.5&6
 Drawing #:
 Zone Location:

Reviewer Identification: PAULY
 Rev Comment #: 200
 Comment Category: 2
 Sheet #:

COMMENT

Text refers to use of one gallon containers for mercury amalgamation, which may be too heavy.

JUSTIFICATION

One gallon of mercury weighs over 100 lbs, which is greater than the weight capacity of many manipulators and may therefore require some unique handling capabilities in the enclosure.

RECOMMENDATION

Either use smaller containers or verify that the intended manipulators have the necessary weight capacity. Identify the resolution in the text.

WHC DISPOSITION

Assigned WHC Cog: PAULY

Date Assigned: February 2, 1994

Reviewer Signature: PAULY

Assigned Category: 2

Comment Status: closed

ESQ Review Number:

UE&C is requested to either modify the text and PFD H-2-140650 to show smaller containers for mercury amalgamation, or change the rating of the manipulators in the special waste enclosure.

Final Disposition

A-E Lead Engineer: Nelson

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree. Revised text to show 1/2 gallon containers.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 1
 Section Paragraph #: 6.3.3.3.2.b
 Drawing #:
 Zone Location:

Reviewer Identification: PAULY
 Rev Comment #: 201
 Comment Category: 1
 Sheet #:

COMMENT

Text states that Zone 1 exhaust fans will be controlled by air flow in the exhaust duct. These exhaust fans should be not be controlled, the air flow rate in the exhaust ducts does not need to be controlled.

JUSTIFICATION

The system appears to be unworkable as identified.

RECOMMENDATION

Change design to control differential pressure in the enclosures by inlet louvers or vanes; delete control of exhaust fans and delete monitoring of exhaust flow rates.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
 Date Assigned: February 2, 1994
 Reviewer Signature: [Signature]

Assigned Category:
 Comment Status: Closed
 ESQ Review Number:

Final Disposition

A-E Lead Engineer: Gehret

Final Category: 2

ROM Cost Impact:

Construction Package Number:

See response to comments 114, 115, 116. Clarified the text.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 1
 Section Paragraph #: 6.3.3.3.2.c
 Drawing #:
 Zone Location:

Reviewer Identification: PAULY
 Rev Comment #: 202
 Comment Category: 1
 Sheet #:

COMMENT

Text states that Zone 2 differential pressure will be controlled by balancing supply and exhaust air flow rates. This does not appear to be a workable designm.

JUSTIFICATION

Air flow rates are not normally used for controlling differential pressure, and trying to control or balance both supply and exhaust air will result in a system fighting itself.

RECOMMENDATION

Change design to control suupply air based on differential pressure; delete all flow rate measuring & control systems.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
 Date Assigned: February 2, 1994
 Reviewer Signature: [Signature]

Assigned Category:
 Comment Status: OK cat 4.
 ESQ Review Number:

Final Disposition

A-E Lead Engineer: Gehret

Final Category: 24

ROM Cost Impact:

Construction Package Number:

See comment 115. Clarified the text.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 6.3.3.4.1.d
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 203
Comment Category: 1
Sheet #:

COMMENT

The text states that carbon bed absorbers in the HCAV exhaust system will have "test canisters." It is not clear what these "test canisters" are or what their function is, and no means have been identified for determining when the carbon bed absorbers require changeout.

JUSTIFICATION

The system appears to incorporate unnecessary features and the necessary controls have not been identified (if the carbon absorbers are deleted, this issue becomes moot).

RECOMMENDATION

Verify the need for the carbon bed absorbers, delete the "test canisters" and provide a workable system for determining when the carbon bed absorbers need changeout.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: February 2, 1994
Reviewer Signature: [Signature] 3/4/94

Assigned Category:
Comment Status: O/SN cat 4.
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Gehret

Final Category: 4

ROM Cost Impact:

Construction Package Number:

ASME N509 address the requirement for test cannisters to determine loading. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 7.2.9.3.2
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 204
Comment Category: 1
Sheet #:

COMMENT

Bullet #1 on page 1-74 uses the terminology "This is different than what is stated in the FDC..." This terminology is inaccurate and incorrect and falsely implies that an inconsistency or contradiction exists.

JUSTIFICATION

The information being referred to here is a clarification and amplification of the FDC requirement; it is not in conflict with the FDC.

RECOMMENDATION

Delete the identified statement.

WHC DISPOSITION

Assigned WHC Cog: HORGOS

Date Assigned: February 2, 1994

Reviewer Signature: 7AP 3/1/94

Assigned Category:

Comment Status: Open as Category 5

ESQ Review Number:

Final Disposition

A-E Lead Engineer: Nelson

Final Category: 3/5

ROM Cost Impact:

Construction Package Number:

Revised text to to clarify difference between total special waste through facility versus special waste throughput through special waste processing system. WHC has action to revise FDC to agree with the ACDR design.

Note - we may change, revise, or clarify FDC requirements - but we do not "as build" FDCs.

7AP

WHC Action

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 7.2.9.3.2.d
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 205
Comment Category: 1
Sheet #:

COMMENT

Page 1-78, third bullet states that mercury content of waste "...shall be less than 260 mg/kg" after being processed in the mercury evaporator. This is not a requirement.

JUSTIFICATION

Neither RCRA nor any other Environmental regulations or Westinghouse policies require mercury content to be less than 260 mg/kg after retorting.

RECOMMENDATION

Delete this requirement.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: February 2, 1994
Reviewer Signature: 2/2/94 2/1/94

Assigned Category: 5
Comment Status: Open as Category 5
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Nelson

Final Category: 3/5

ROM Cost Impact:

Construction Package Number:

Revised text to remove the requirement. WHC has action to define regulatory position interpretation.

WHC Action

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 7.2.9.3.2
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 206
Comment Category: 5
Sheet #:

COMMENT

The FDC states that WRAP 2A shall treat wastes in accordance with RCRA and LDR while not performing any "thermal processing," yet the WRAP 2A feed specification identifies two waste streams (5A2 mercury chemicals and 5A3 mercury heterogenous waste) that require thermal processing (i.e. mercury retorting and roasting).

JUSTIFICATION

The FDC and Feed Specification for WRAP 2A provide conflicting requirements; and the FDC presumably prevails in this situation.

RECOMMENDATION

Delete the mercury retort and roast system from the design; modify the FDC to enable use of Treatment Variance Petition for high mercury subcategory wastes.

WHC DISPOSITION

Assigned WHC Cog: PAULY Assigned Category: 5
Date Assigned: February 2, 1994 4/18/94 Comment Status: 0
Reviewer Signature: [Signature] ESQ Review Number:

Westinghouse needs to determine (1) whether there will be any waste in the high mercury subcategory, (2) whether it is appropriate to treat this waste in WRAP 2A, and if so, (3) revise the FDC to remove references to "no thermal treatment" and "500 °F" limitations pertaining to WRAP 2A.

Final Disposition

A-E Lead Engineer: Nelson Final Category: 5

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 7.2.9.3.5.a
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 207
Comment Category: 1
Sheet #:

COMMENT

Text states that ion exchange will "...remove any mercury or mercury compounds." Ion exchange will be effective only for mercury in the soluble mercuric (Hg+2) form.

JUSTIFICATION

Mercury in other valence states will not be absorbed by the ion exchange process.

RECOMMENDATION

Change text to state that ion exchange is provided for removal of any soluble mercury from the waste water.

WHC DISPOSITION

Assigned WHC Cog: PAULY Assigned Category: 3
Date Assigned: February 2, 1994 Comment Status: 0
Reviewer Signature: PAULY 4/19/94 ESQ Review Number:

UE&C is requested to revise text as indicated.

Final Disposition

A-E Lead Engineer: Nelson Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 7.2.11.3.2.a
Drawing #: H-2-140657
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 208
Comment Category: 1
Sheet #: 1

COMMENT

Page 1-102, last bullet, identifies a non-applicable FDC requirement "Tanks, hopper, etc., sized for 125% of maximum expected volumes."

JUSTIFICATION

This section of the FDC (2.2.2.1) pertains to the AMU area and is not applicable to secondary waste systems. The correct section of the FDC is identified on page 1-104.

RECOMMENDATION

Delete the last bullet on page 1-102.

WHC DISPOSITION

Assigned WHC Cog: PAULY Assigned Category: 3
Date Assigned: February 2, 1994 2/10/94 Comment Status: 0
Reviewer Signature: [Signature] ESQ Review Number:

UE&C is requested to revise text as indicated.

Final Disposition

A-E Lead Engineer: Chapin

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 7.2.11.3.2.a
Drawing #: H-2-140657
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 209
Comment Category: 1
Sheet #: 1

COMMENT

Pages 1-104 and 1-105 reiterate the correct FDC criteria for active secondary liquid wastes, namely that there be two (2) receiving tanks with a minimum combined capacity of 10,000 gal that can be isolated from each other, and a tank for storing treated active waste water with at least 7,000 gal capacity. The design provides only one receiving tank and the treated waste tank is only 3,000 gal capacity.

JUSTIFICATION

The design is required to satisfy the FDC requirements.

RECOMMENDATION

Change the design to match the FDC requirements.

WHC DISPOSITION

Assigned WHC Cog: PAULY Assigned Category: 1
Date Assigned: February 2, 1994 Comment Status: 0
Reviewer Signature: PAULY ESQ Review Number:

UE&C is requested to change the referenced BFD and text so that the active liquid waste system contains two receiver (or collection) tanks, and one treated waste tank. Each of these three tanks should be sized with a maximum capacity of at least 7,500 gallons, which is 150% of the maximum expected volume (i.e. the maximum expected volume = the operating capacity of 5,000 gallons). See comment #86 for related discussion.

Final Disposition

A-E Lead Engineer: Chapin Final Category: 2

ROM Cost Impact:

Construction Package Number:

The design presented in the 90% ACDR meets FDC design requirements. However, the ACDR is revised to show the scheme proposed above in the WHC disposition (section 5.11.2 and drawings changed).

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 7.2.11.3.a
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 210
Comment Category: 5
Sheet #:

COMMENT

The FDC is too restrictive and prescriptive regarding secondary liquid waste tank sizes (i.e. identifying 10,000 gallon and 7,000 gallon tanks), and is too vague regarding surge storage requirements for secondary liquid waste (i.e. specifying three month's surge capacity for treated active waste).

JUSTIFICATION

The FDC should specify functional requirements and the specific tank size requirements should be determined during design. The three month's surge is a vague requirement because it depends on how waste is campaigned.

RECOMMENDATION

Change FDC to delete specific tank sizes and either delete "three month's" surge requirement or identify campaign strategy.

WHC DISPOSITION

Assigned WHC Cog: PAULY Assigned Category: 5
Date Assigned: February 2, 1994 Comment Status: 0
Reviewer Signature: [Signature] 1/18/94 ESQ Review Number:

Westinghouse needs to revise section 2 2.2.8 through 2.2.8.3 of the FDC as indicated.

Final Disposition

A-E Lead Engineer: Chapin

Final Category: 5

ROM Cost Impact:

Construction Package Number:

WHC action. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 8.3
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 211
Comment Category: 1
Sheet #:

COMMENT

Debris Processing uncertainty #1, in addition to identifying direct repacking equipment as an uncertainty, should identify layout as an uncertainty since the current layout requires direct repacking operations to lower waste items over 34 feet through a chute.

JUSTIFICATION

Equipment is not the only uncertainty regarding the direct repacking operation for the debris line.

RECOMMENDATION

Ammend to identify layout as an uncertainty.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Date Assigned: February 2, 1994

Reviewer Signature: 7/2/94

Assigned Category: 1

Comment Status:

ESQ Review Number:

Agree with comment provide in uncertainties written section that facility layout will be effected.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agreee. Revised text per WHC disposition.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 8.3
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 212
Comment Category: 1
Sheet #:

COMMENT

Uncertainty #1 under empty drum compaction should be deleted.

JUSTIFICATION

This topic is not an uncertainty - the regulatory positions are clear and have been communicated to UE&C by Westinghouse regarding empty containers.

RECOMMENDATION

Delete this uncertainty.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Assigned Category: 1/5

Date Assigned: February 2, 1994

Comment Status:

Reviewer Signature: 7081 4/12/94

ESQ Review Number:

Agree with comment; only uncertainty is infilling of container with grout for subsidence. WHC will address in the SDRD.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Revised text to delete the uncertainty.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 8.3
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 213
Comment Category: 1
Sheet #:

COMMENT

Undertainty #2 under empty drum compaction should be deleted.

JUSTIFICATION

Westinghouse has already provided a requirement that the design be capable of grouting boxes of compacted empty drums; therefore this is not an uncertainty.

RECOMMENDATION

Delete this uncertainty.

WHC DISPOSITION

Assigned WHC Cog: LAMBED
Date Assigned: February 2, 1994
Reviewer Signature: *Larry Lamber*

Assigned Category: 1
Comment Status:
ESQ Review Number:

closed

Final Disposition

A-E Lead Engineer: Voke

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Deleted uncertainty.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 8.3
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 214
Comment Category: 1
Sheet #:

COMMENT

Uncertainty #3 under Polyethylene Encapsulation should be deleted.

JUSTIFICATION

The issue of whether the PE system can accommodate waste feed for which PE is identified as the alternate treatment system at the rate of 17,400 cubic feet per year will not impact the PE system sizing. This system should be sized for the primary feeds.

RECOMMENDATION

Delete this uncertainty.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD Assigned Category: 1
Date Assigned: February 2, 1994
Reviewer Signature: TPA 4/18/94 Comment Status:
ESQ Review Number:

Agree with comment, delete uncertainty.

Final Disposition

A-E Lead Engineer: Chapin Final Category:

ROM Cost Impact:

Construction Package Number:

Agree, deleted uncertainty. Also, revised PE system Process Design Basis to more clearly state that alternate feeds are "capability only" and system design (sizing) basis is feeds 2A and 2B only.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 8.3
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 215
Comment Category: 1
Sheet #:

COMMENT

Uncertainty #6 under Special Waste Processing (whether the mercury retort design has identified the optimum equipment) should be a UE&C/BNFL uncertainty, not a Westinghouse uncertainty.

JUSTIFICATION

It is up to UE&C/BNFL, not Westinghouse, to evaluate equipment and recommend the optimum configuration.

RECOMMENDATION

Change uncertainty resolution from WHC to UE&C/BNFL.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Assigned Category: 1

Date Assigned: February 2, 1994

Comment Status:

Reviewer Signature: 7/18/94

ESQ Review Number:

Agree with comment, Uncertainty will be deleted, UE&C is responsible for equipment selection and arrangements.

Final Disposition

A-E Lead Engineer: Nelson

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text to assign resolution responsibility to UE&C.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 1
 Section Paragraph #: A11
 Drawing #:
 Zone Location:

Reviewer Identification: PAULY
 Rev Comment #: 216
 Comment Category: 2
 Sheet #:

COMMENT

The current text pages are numbered as "Volume 1-..." in every section, leading to a "Volume1-2" in each section.

JUSTIFICATION

It is very difficult to make comments and track comments with such a poor page numbering system.

RECOMMENDATION

The text pages should be numbered sequentially either by section (e.g. 3-1) or in total (e.g. 1 through 250); and they should be identified as pages instead of "Volume".

WHC DISPOSITION

Assigned WHC Cog: LAMBERD Assigned Category: 3
 Date Assigned: February 2, 1994 Comment Status:
 Reviewer Signature: 7R2 9/18/94 ESQ Review Number:

UE&C will determine best way to number pages.

Final Disposition

A-E Lead Engineer: Basu Final Category: 3

ROM Cost Impact:

Construction Package Number:

Disagree. The section number (i.e., 6.0) and the section title is noted on the bottom left of each page, which makes it unique even though the page no. on the bottom right does repeat from section to section. Some of the reviewers, who took time to look at the bottom left, did not appear to have any problem. However, page numbering system will be revised to make it more user friendly.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 8.3
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 217
Comment Category: 2
Sheet #:

COMMENT

The uncertainties are not numbered sequentially, and section numbers are not provided for the various areas (e.g. Special Waste Processing).

JUSTIFICATION

The current uncertainty numbering system makes it difficult to comment on and difficult to track resolution of the uncertainties.

RECOMMENDATION

Number the sections and number the uncertainties sequentially.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994
Reviewer Signature: 7/2/94 9/18/94

Assigned Category: 3
Comment Status:
ESQ Review Number:

UE&C will determine way to uniquely number uncertainties.

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Sections and uncertainties are numbered uniquely.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 4
Section Paragraph #:
Drawing #: H-2-140638
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 218
Comment Category: 2
Sheet #: 1

COMMENT

Add a vibrating table to the Sludge/Particulate grout system container filling process.

JUSTIFICATION

This will provide better contain filling for the Sludge/Particulate grout system and also the Sludge/Particulate grout system to be used for vibro-filling debris containers.

RECOMMENDATION

Add the equipment noted in this comment.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT Assigned Category: 2
Date Assigned: February 2, 1994 Comment Status: .
Reviewer Signature: [Signature] 1/19/94 ESQ Review Number:

Agree with comment - reference comment #97.

Final Disposition

A-E Lead Engineer: Voke Final Category: 2

ROM Cost Impact:

Construction Package Number:

See comment 96 for disposition.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 4
Section Paragraph #:
Drawing #: H-2-140632
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 219
Comment Category: 1
Sheet #: 1-3

COMMENT

The Particulate/Sludge processing; Debris Processing; Grout Processing; and Polyethylene processing do not need to be on three levels.

JUSTIFICATION

Since a "bucket conveyor" is being used to raise crushed waste back up to the dryer/mixer, the sorting table and screen for particulate waste could be relocated to the second floor if the "bucket conveyor" (or related equipment) were extended to transfer crushed waste from the first floor back up to the top of the second floor (dryer/mixer inlet).

RECOMMENDATION

Re-evaluate layout and determine whether three floors are really necessary or optimum for the process area.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Assigned Category: 4

Date Assigned: February 2, 1994

Comment Status:

Reviewer Signature: 7/18/94

ESQ Review Number:

Agree with comment, Reevaluate plant layout for optimizing plant sizing, configurations, and equipment locations

Final Disposition

A-E Lead Engineer: Dutton

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. It is feasible that a two floor process may be achievable. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #:
Drawing #: H-2-140631 Sht3
& H-2-140632 Sht 1
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 220
Comment Category: 1
Sheet #:

COMMENT

A "bucket conveyor" is identified for transporting waste from the particulate crusher back up to the top of the dryer/mixer. This probably not the optimum equipment for this application.

JUSTIFICATION

A "bucket conveyor" is inappropriate for providing radioactive material confinement.

RECOMMENDATION

Identify selection/evaluation of this equipment item as an uncertainty (Vol. 1 Section C) and optimize the equipment & layout during MFD development.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD Assigned Category: 1
Date Assigned: February 2, 1994 Comment Status: Closed
Comment closed. This is a duplicate of comment #92.

Reviewer Signature: 7 RP 4/13/94 ESQ Review Number:

Final Disposition

A-E Lead Engineer: Sharpe Final Category: N/A

ROM Cost Impact:

Construction Package Number:

This is a closed comment. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 4
Section Paragraph #:
Drawing #: W-2-140631
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 221
Comment Category: 1
Sheet #: 5

COMMENT

The liquid waste tanks are gravity feed yet are located in a partial basement on legs.

JUSTIFICATION

It is not apparent that there is sufficient elevation change in the liquid waste system for gravity flow to work in the current configuration.

RECOMMENDATION

Re-evaluate necessary elevations/locations of liquid waste tanks to account for gravity feed (or obtain variance from law of gravity).

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 2, 1994

Assigned Category: 1
Comment Status: Closed

Comment closed. This is a duplicate of comment #100.

Reviewer Signature: 7NDZ 4/13/94 ESQ Review Number:

Final Disposition

A-E Lead Engineer: Chapin

Final Category: N/A

ROM Cost Impact:

Construction Package Number:

This is a closed comment. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 1
 Section Paragraph #: 5.8.3.8 & 5.8.4.9
 Drawing #: H-2-140637 & 140638
 Zone Location:

Reviewer Identification: PAULY
 Rev Comment #: 222
 Comment Category: 1
 Sheet #: 1

COMMENT

The text and PFDs identify a "Grout Solids Collection Container" and a "Parking Stand" for this container, which is to be used for grout washings from the Grout Mix Tank. It is not clear where these parking stands are located and how the containers are moved on and off the conveyors serving the grout fill enclosures.

JUSTIFICATION

Without knowing where the parking stands are and how the containers will be sequenced onto and off of the conveyors, it is questionable whether the Time & Motion study allowance of 30 minutes is sufficient for accomplishing this operation.

RECOMMENDATION

Identify the locations of the parking stands on the GA drawings and provide a description of the container movement (and subsequent liquid pumpout) in the text. Verify whether 30 minutes per shift is adequate for this operation.

WHC DISPOSITION

Assigned WHC Cog: WEINGARDT Assigned Category: 1
 Date Assigned: February 2, 1994 Comment Status:
 Reviewer Signature: 7/12/94 ESQ Review Number:

Refer to comment 93 when dispositioning this comment. Depending on final disposition to 93 incorporate or reject this comment.

Final Disposition

A-E Lead Engineer: Voke

Final Category: 1

ROM Cost Impact:

Construction Package Number:

See comment 93 for disposition.

*Note: Comment 93 and its disposition
 do not address T & M aspects
 of this comment.*

7/12/94

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 5.9.4.5
Drawing #: H-2-140631
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 223
Comment Category: 1
Sheet #: 3

COMMENT

Text states that mercury will be manually drained from the decant vessel (outside of the enclosure) to a container located inside the enclosure. However, the decant vessel is not located adjacent or near the enclosure.

JUSTIFICATION

The configuration shown in the GA drawing appear to be in conflict with the statements made in the text, and it is not apparent that the operations described in the text can be accomplished.

RECOMMENDATION

Evaluate the GA configuration and revise as required so that the decant vessel is located near an enclosure.

WHC DISPOSITION

Assigned WHC Cog: PAULY Assigned Category: 1
Date Assigned: February 2, 1994 1/18/94 Comment Status: 0
Reviewer Signature: 2RPJ ESQ Review Number:

UE&C is requested to modify the process area GA as indicated.

Final Disposition

A-E Lead Engineer: Nelson Final Category: 1

ROM Cost Impact: Construction Package Number:

Agree. Revised H-2-140631 to agree with text.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 5.9.4.5
Drawing #: H-2-140650
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 224
Comment Category: 4
Sheet #: 1

COMMENT

There is no cooling provided for the mercury amalgamation container.

JUSTIFICATION

Mercury amalgamation can be an exothermic reaction, with lost of heat generation (and possible mercury vaporization). Some provision for cooling the container during the amalgamation process should be provided.

RECOMMENDATION

Either provide cooling for the container during the amalgamation process or technical justification showing that cooling is not necessary (this issue was also identified during HAZOP review).

WHC DISPOSITION

Assigned WHC Cog: PAULY Assigned Category: 4
Date Assigned: February 2, 1994 Comment Status: 0
Reviewer Signature: PAULY 4/18/94 ESQ Review Number:

UE&C is requested to modify the process as indicated during Title 1 design.

Final Disposition

A-E Lead Engineer: Nelson

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IIIA
Section Paragraph #: App B
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 225
Comment Category: 2
Sheet #:

COMMENT

Data Sheets are provided for three shredders (Box Breakdown, Debris, and Special Waste), and there are several inconsistencies between them. Special Waste has a 15 cf hopper for an 11.2 cf/shift rate, Debris has a 10 cf hopper for a 90 cf/hr rate, and Box Breakdown has a 2.5 ft by 2.5 ft hopper opening for a 17 cf/hr rate. The Debris Shredder Data Sheet identifies an inert purge and a design pressure, the other two do not.

JUSTIFICATION

The hopper sizes for these shredders should correlate to the throughput rate, and the same parameters should be specified for similar equipment (e.g. the size specification for box breakdown shredder hopper should use the same units as the other two shredders). It would appear that either the Special Waste shredder hopper is oversized or that the Debris shredder hopper is undersized. The inert purge and operating pressures should appear on all or none.

RECOMMENDATION

Determine correct Conditions of Service and revise Data Sheets accordingly.

WHC DISPOSITION

Assigned WHC Cog: <u>PAULY</u>	Assigned Category: 2
Date Assigned: February 2, 1994	Comment Status: 0
Reviewer Signature: <u>7/12/94</u>	ESQ Review Number:

UE&C is requested to resolve identified apparent discrepancies.

Final Disposition

A-E Lead Engineer: Sharpe/Nelson	Final Category: 2
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ROM Cost Impact:

Construction Package Number:

Agree. Revised data sheets to provide consistent basis and correct conditions of service for the shredder/crusher sizing.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IIIA
Section Paragraph #: App B
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 226
Comment Category: 1
Sheet #:

COMMENT

The Data Sheet for Special Waste Mercury Evaporator identifies a product specification of less than 260 mg/kg mercury, which is incorrect.

JUSTIFICATION

There is no requirement in either RCRA or Washington State environmental regulations or Westinghouse SDRD that identifies a 260 mg/kg product specification for mercury.

RECOMMENDATION

Delete this condition of service.

WHC DISPOSITION

Assigned WHC Cog: PAULY Assigned Category: 1
Date Assigned: February 2, 1994 *4/13/94* Comment Status: 0
Reviewer Signature: *7RPJ* ESQ Review Number:

UE&C is requested to revise the data sheet as indicated. See comment #205 for related discussion.

Final Disposition

A-E Lead Engineer: Nelson

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Revised data sheet for H-06-201 to delete this condition of service.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IIIA
Section Paragraph #: App B
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 227
Comment Category: 2
Sheet #:

COMMENT

The Data Sheet for the Box Breakdown Shredder states that the application is "Shredding Debris..." - during the PFD 90% review, it was agreed that this shredder would not be used for debris.

JUSTIFICATION

The agreement/clarification reached at the PFD 90% review was intended to ensure that the Box Breakdown shredder and the Debris Shredder were not unnecessary duplicates.

RECOMMENDATION

Change Data Sheet as identified.

WHC DISPOSITION

Assigned WHC Cog: PAULY
Date Assigned: February 2, 1994
Reviewer Signature: PAULY 2/2/94

Assigned Category: 2
Comment Status: 0
ESQ Review Number:

UE&C is requested to revise the data sheet as indicated.

Final Disposition

A-E Lead Engineer: Sharpe

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree. Revised data sheet per comment.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #:
Drawing #: H-2-140636,140637,140638,140640
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 228
Comment Category: 2
Sheet #: 1

COMMENT

Equipment tag numbers have not been provided for the screw conveyors, weigh
hoppers, and dense phase pumps on these PFDs.

JUSTIFICATION

During the PFD 90% review, it was agreed that equipment tag numbers would be
added to individual equipment items within the packaged systems.

RECOMMENDATION

Add individual equipment tag numbers to these equipment items within the
packaged systems.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD Assigned Category: 2
Date Assigned: February 2, 1994 Comment Status: Closed
Reviewer Signature: [Signature] 4/18/94 Review Number:

Only major equipment items were tagged and numbered.

Final Disposition

A-E Lead Engineer: Chapin Final Category: 3

ROM Cost Impact:

Construction Package Number:

Tag numbers were not provided for equipment items within vendor packages where
the equipment may vary from vendor to vendor (e.g., dense vs. dilute phase
pneumatic transfer systems for PE and grout powers). No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IIIA
Section Paragraph #: App B
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 229
Comment Category: 2
Sheet #:

COMMENT

The PFA and BFS silo sizes are different in the PFDs and Data Sheets from what is reported in the PFD 90% review meeting minutes.

JUSTIFICATION

The sizes should either be the same in all places or the reason for the discrepancy should be understood.

RECOMMENDATION

Verify correct sizes and provide explanation for discrepancies.

WHC DISPOSITION

Assigned WHC Cog: PAULY Assigned Category: 2
Date Assigned: February 2, 1994 Comment Status: 0
Reviewer Signature: PAULY 1/18/94 ESQ Review Number:

UE&C to provide justification for discrepancies or either change design media or meeting minutes to match.

Final Disposition

A-E Lead Engineer: Voke Final Category: 2

ROM Cost Impact:

Construction Package Number:

The silo sizes are based on the design throughputs for WRAP 2A and a 3 shift/day, 2-week hold-up (10 working days). These numbers have changed as the mass balance had developed. No change to ACDR. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #:
Drawing #: H-2-149631
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 230
Comment Category: 2
Sheet #: 3

COMMENT

There are three drum lifts shown going to the same enclosure; it appears that less than three are necessary.

JUSTIFICATION

The drums lifts are required to handle 1 per shift for Debris; 14 per shift for Particulates; 1.5 drums per shift for Special Waste. Since the Special Waste process only operates part time and since all 3 drums lifts go to the same enclosure, it would seem that the Debris drum lift has the capacity to serve both Debris and Special Waste.

RECOMMENDATION

Delete the Special Waste drum lift.

WHC DISPOSITION

Assigned WHC Eng: LAMBERD
Date Assigned: February 2, 1994

Assigned Category: 2
Comment Status: Closed

Comment closed. This is a duplicate of comment #136.

Reviewer Signature: 7NP/ 4/13/94 Review Number:

Final Disposition

A-E Lead Engineer: Nelson/Dutton

Final Category: N/A

ROM Cost Impact:

Construction Package Number:

This is a closed comment. No change to ACDR.

WRAP and Solid Waste Projects
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Spec #: Vol I
 Spec Paragraph #: 6.3.3.3, 1.d
 Drawing #:
 Zone Location:

Reviewer Identification: STROUP
 Rev Comment #: 231
 Comment Category: 2
 Sheet #:

COMMENT

page 24, third dash under third bullet : the stack does not need to survive the DBE unless it is credited for dispersal after an earthquake/release scenario. Only those confinement components that are required to maintain confinement are required to survive the SC-3 DBE. The only other reason for a SC-3 DBE stack would be to protect the building from the falling stack. Otherwise the stack should not be seismically designed.

JUSTIFICATION

Over-designing the stack adds to the TEC

RECOMMENDATION

Unless required for reasons other than confinement, do not require the stack to be designed to a SC-3 DBE.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
 Date Assigned: February 2, 1994
 Reviewer Signature: [Signature]

Assigned Category:
 Comment Status: Closed
 ESQ Review Number:

Final Disposition

A-E Lead Engineer: Gehret

Final Category: 2

ROM Cost Impact:

Construction Package Number:

- Stack exits through the roof of the HEPA filter room. Collapse of the stack could breach contaminated duct or filter housings. No change to ACDR.

WRAP and Solid Waste Projects
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Spec #: Vol I
 Spec Paragraph #: 6.3.3.3.1.d
 Drawing #:
 Zone Location:

Reviewer Identification: STROUP
 Rev Comment #: 232
 Comment Category: 1
 Sheet #:

COMMENT

page 24, last line : Safe shutdown of the HVAC must include the Zone II confinement system. Trying to run the zone II HVAC while the zone I is idle would be potentially disastrous.

JUSTIFICATION

Safety. Consistency with WRAP-1 design.

RECOMMENDATION

Assure that zone II fans are hardwired interlocked similar to the WRAP-1 system.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
 Date Assigned: February 2, 1994
 Reviewer Signature: [Signature]

Assigned Category:
 Comment Status: Closed
 ESQ Review Number:

Final Disposition

A-E Lead Engineer: Gehret

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree with recommendation, clarified text.

WRAP and Solid Waste Projects
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Spec #: Vol I
Spec Paragraph #: 6.3.3.3.2.c
Drawing #:
Zone Location:

Reviewer Identification: STROUP
Rev Comment #: 233
Comment Category: 2
Sheet #:

COMMENT

page 26, first bullet : Although facility humidification IS ALLOWABLE under DOE 6430.1A, it is NOT REQUIRED. This was identified as a lessons learned cost savings for WRAP-1. Humidification has not been typically installed at Hanford facilities. Unless there are specific equipment requirements for a humidity controlled environment, please do not provide for facility humidification.

JUSTIFICATION

Cost savings for both TEC and more significantly operation/maintenance cost.

RECOMMENDATION

Delete facility humidification.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: February 2, 1994
Reviewer Signature: [Signature]

Assigned Category:
Comment Status: OPEN cat 4
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Gehret

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Will be further evaluated at later design stage. No change to ACDR.

**WRAP and Solid Waste Projects
Design Review Comment Submittal**

Document Title: WRAP 2A ACDR
Spec #: Vol I
Spec Paragraph #: 6.3.3.3.2.d
Drawing #:
Zone Location:

Reviewer Identification: STROUP
Rev Comment #: 234
Comment Category: 2
Sheet #:

COMMENT

Please add the requirement that the ducting serving non-confinement systems that serve waste storage and handling areas shall not pass through other non-confinement areas such as administrative zones. Although not prohibited by criteria, this was identified as an ALARA issue for the WRAP-1 lessons learned and should be adhered to.

JUSTIFICATION

Reduction of the chance for contamination spread and personnel exposure. ALARA.

RECOMMENDATION

Add the suggested requirement.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: February 2, 1994
Reviewer Signature: [Signature]

Assigned Category:
Comment Status: CLOSED
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Gehret

Final Category: 5

ROM Cost Impact:

Construction Package Number:

Comment to be evaluated by WHC. No change to ACDR.

Evaluation by Cog Engineer: The Comment states: "Although not prohibited by criteria, this issue was identified as an ALARA issue in the WRAP-1 Lessons Learned." However the ALARA issue was not formally documented in the WRAP 1 review. WHC is not imposing this recommendation as a formal requirement but suggests that the A/E implement the recommendation to the extent practicable under the concept of ALARA. This Comment is Closed.

WRAP and Solid Waste Projects
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Spec #: Vol I
Spec Paragraph #: 6.3.3.4.1.a
Drawing #:
Zone Location:

Reviewer Identification: STROUP
Rev Comment #: 235
Comment Category: 1
Sheet #:

COMMENT

Confinement system criteria requires backflow prevention for the zone II supply. Please provide fail closed backflow dampers

JUSTIFICATION

6430.1A

RECOMMENDATION

Provide backflow dampers

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: February 2, 1994
Reviewer Signature: *[Signature]*

Assigned Category:
Comment Status: *Open*
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Gehret

Final Category: 1/5

ROM Cost Impact:

Construction Package Number:

WHC to change SDRD 4.2.2.2.1. UE&C agrees that the supply system should have a fail closed damper. Text changed to show fail closed dampers.

WHC Action

WRAP and Solid Waste Projects
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Spec #: Vol I
Spec Paragraph #: 6.3.3.4.1.b
Drawing #:
Zone Location:

Reviewer Identification: STROUP
Rev Comment #: 236
Comment Category: 1
Sheet #:

COMMENT

The zone II supply system must fail closed as noted in previous comment. In a safe shutdown condition the confinement system is allowed to breathe through the HEPA filters in the exhaust system (and glovebox inlet).

JUSTIFICATION

Required for safe shutdown. Consistency with WRAP-1 design.

RECOMMENDATION

Change safe shutdown configuration to protect supply (no HEPA's) from backflow.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: February 2, 1994
Reviewer Signature: [Signature]

Assigned Category:
Comment Status: Closed
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Gehret

Final Category: 1/5

ROM Cost Impact:

Construction Package Number:

Agree, text changed; see comment # 235.

WRAP and Solid Waste Projects
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Spec #: Vol I
Spec Paragraph #: 6.3.3.4.1.e
Drawing #:
Zone Location:

Reviewer Identification: STROUP
Rev Comment #: 237
Comment Category: 2
Sheet #:

COMMENT

Per the experience of Los Alamos TA-55, in the event of a failure of a system component it is more desirable to allow the system to achieve a safe shutdown and then, after a system checkout, an orderly restart. The added complexities that arise in an automated recovery scenario can lead to system upset. Please change the statement that the system shall automatically start after failure to "the system shall revert to a safe shutdown after the failure of a major system component (fan, damper)".

JUSTIFICATION

Integrity of the safe shutdown system and consistency with the WRAP-1 design.

RECOMMENDATION

Revise as suggested in the comment.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: February 2, 1994
Reviewer Signature: _____

Assigned Category: 4
Comment Status: Open - see note below
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Gehret

Final Category: 2 4

ROM Cost Impact:

Construction Package Number:

Disagree with recommendation, changed text for clarification.

waiting to see wording of "revised text."

WRAP and Solid Waste Projects
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Spec #: Vol IIIA
 Spec Paragraph #: 4.3.1.e
 Drawing #:
 Zone Location:

Reviewer Identification: STROUP
 Rev Comment #: 238
 Comment Category: 2
 Sheet #:

COMMENT

Per prior comment 233 there should be no humidity controls for WRAP-2A.
 Please delete reference to humidity controls.

JUSTIFICATION

Cost savings (TEC and operation/maintenance).

RECOMMENDATION

Delete reference to humidity controls.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
 Date Assigned: February 2, 1994
 Reviewer Signature: *J. Stroup*

Assigned Category: 2
 Comment Status:
 ESQ Review Number:

Associated with comment 233 and entire HVAC system will be evaluated during accuracy. Revise SDRD to state that humidity control is for equipment protection not personnel confort. (added 3/22/94 by DLL)

Final Disposition

A-E Lead Engineer: Gehret

Final Category: 4

ROM Cost Impact:

Construction Package Number:

See comment 233. No change to ACDR.

WRAP and Solid Waste Projects
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Spec #: Vol I
Spec Paragraph #: 6.3.3.3.1.c
Drawing #:
Zone Location:

Reviewer Identification: STROUP
Rev Comment #: 239
Comment Category: 2
Sheet #:

COMMENT

last bullet of page 23 : Unless required for corrosion resistance, stainless steel is not required for the ventilation ductwork and filter train. Please change to carbon steel. Comment also applies to 6.3.3.3, 2,c last bullet

JUSTIFICATION

Cost savings

RECOMMENDATION

Change to allow carbon steel.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: February 2, 1994
Reviewer Signature: [Signature]

Assigned Category:
Comment Status: OPEN cert 4
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Gehret

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Disagree, stainless steel should be used for decontamination requirements. More evaluation will be done at a later design stage. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: III
 Section Paragraph #: 5.3
 Drawing #:
 Zone Location:

Reviewer Identification: SWAN
 Rev Comment #: 240
 Comment Category: 1
 Sheet #:

COMMENT

Hanford grout feed streams should not be included with volume estimates for WRAP 2A. Grout will not be generating, or sending, any wastes to WRAP 2A. (Also, reference to grout wastes listed at pg. A-9)

JUSTIFICATION

The Hanford grout project is no longer a viable treatment option to be used at the Site.

RECOMMENDATION

Delete references to waste being received by WRAP 2A generated by grout.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
 Date Assigned: February 2, 1994
 Reviewer Signature: [Signature]

Assigned Category:
 Comment Status: C
 ESQ Review Number:

Final Disposition

A-E Lead Engineer: Voke

Final Category: 5

ROM Cost Impact:

Construction Package Number:

This comment is really a reference to the Feed Spec Document. WHC has action to revise the Feed Spec. No change to ACDR.

Change to ACDR is applicable. Delete all references to the Grout Treatment Facility as a waste stream for treatment at WRAP module IIA.

DON'T SAY IT --- Write It!

DATE: March 7, 1994

TO: Roni Swan H6-30

FROM: R. M. (Bob) Horgos (H1-60)

Telephone: 372-0792

CC:

SUBJECT: Resolution of WRAP 2A ACDR Comment

You reviewed the WRAP 2A Advanced Conceptual Design Report (ACDR) and provided comments on some of the sections or portions of that document. One of your comments (WRAP 2A Comment #240) was assigned to me for Resolution. After reviewing that comment I telephoned you to discuss my proposed resolution of your comment.

The basis for your comment was related to a reference in the ACDR to the Hanford Grout Project, which is no longer an active Project at Hanford. Your comment requested that the reference be deleted. The Architect/Engineer designer must contractually respond to WHC Design Basis documents that are provided to the A/E by WHC. The original reference to the Hanford Grout Project was contained in the WHC Feed Specification Document (WHC-SD-W100-RD-001, Rev 0) that was supplied to the A/E by WHC. In order to direct the A/E to delete continued reference to the Hanford Grout Project, it is necessary for WHC to revise the WHC Feed Specification Document.

My proposed resolution to your ACDR comment is to assign the responsibility, for resolving the technical error that you identified, to WHC RR/Solid Waste Division (e.g., WRAP Program Office) for resolution. RR/Solid Waste Division is responsible to revise the WHC Feed Specification Document. By virtue of your comment, RR/SWD is on notice for the need to delete the reference to the Hanford Grout Project in the Feed Specification Document.

A copy of WRAP 2A ACDR Comment #240 is attached. Would you please sign-off your concurrence to the Resolution by signing on the line marked: "Reviewer Signature". Please add the date behind your signature. After you have signed the Comment Copy, please return the signed Comment Sheet to me at H1-60. If you have any questions relative to this action, please call me on 372-0792. Thank you.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I and II
Section Paragraph #: Throughout
Drawing #:
Zone Location:

Reviewer Identification: SWAN
Rev Comment #: 241
Comment Category: 3
Sheet #:

COMMENT

Project W-112 is referred to as W-112 and W112.

JUSTIFICATION

Recommend Project W-112 throughout to be more consistent in document.

RECOMMENDATION

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 8, 1994
Reviewer Signature:

Assigned Category: 3
Comment Status:
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Basu

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree. Revised report to use only W-112

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 5.2.1
Drawing #:
Zone Location:

Reviewer Identification: SWAN
Rev Comment #: 242
Comment Category: 3
Sheet #:

COMMENT

Description of process is not clear, and could be better presented.

JUSTIFICATION

Reader understanding would be improved with a better description of how this process works, i.e., bar code system.

RECOMMENDATION

Explain the bar code system.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 8, 1994
Reviewer Signature:

Assigned Category: 3
Comment Status:
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Disagree. Bar code System is a universally used term in the industry. Also, details of the bar code system is a Title design activity. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I, II, III
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: SWAN
Rev Comment #: 243
Comment Category: 3
Sheet #:

COMMENT

There is no Acronyms or Abbreviations listing.

JUSTIFICATION

It would add to the readability of the document.

RECOMMENDATION

Recommend adding an Acronyms/Abbreviations listing.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Assigned Category: 3

Date Assigned: February 8, 1994

Comment Status:

Reviewer Signature: [Signature]

ESQ Review Number:

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Added Acronyms List.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I, II, III
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: SWAN
Rev Comment #: 244
Comment Category: 2
Sheet #:

COMMENT

A new Point of Contact (POC) checklist should be completed for this project since once was done prior to the scope changes. This would identify future permitting requirements.

JUSTIFICATION

The old POC is now out dated.

RECOMMENDATION

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 8, 1994
Reviewer Signature:

Assigned Category: 3
Comment Status:
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Basu

Final Category: 5

ROM Cost Impact:

Construction Package Number:

No specific reference is given for the comment. Also we do not understand what a POC is. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I, II, III
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: SWAN
Rev Comment #: 245
Comment Category: 3
Sheet #:

COMMENT

Will need to review the changes made to this ACDR document, prior to environmental review signature.

JUSTIFICATION

Comment time of two weeks was not sufficient enough to thoroughly review the document for environmental concerns.

RECOMMENDATION

Recommend at least 3 week review time.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Assigned Category: 3

Date Assigned: February 8, 1994

Comment Status:

Reviewer Signature: [Signature]

ESQ Review Number:

This is not design review comment and should be taken up under another format.
This should be resolved as an issue for management to address.

Final Disposition

A-E Lead Engineer: Basu

Final Category: 5

ROM Cost Impact:

Construction Package Number:

No action for UE&C and no change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDr
Volume #:
Section Paragraph #:
Drawing #: H-2-140713
Zone Location: D.C/4

Reviewer Identification: MYERS
Rev Comment #: 246
Comment Category: 2
Sheet #: sht 1

COMMENT

No direct access from computer room to control room.

JUSTIFICATION

Ease of maintenance.

RECOMMENDATION

Add door directly from computer room to control room.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD

Assigned Category: 2

Date Assigned: January 31, 1994

Comment Status:

Reviewer Signature: J.B. Myers

ESQ Review Number:

UE&C will evaluate and provide resolution.

Final Disposition

A-E Lead Engineer: Bowlin

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree. Revised drawing to add connecting door. There were some other doors that were also left out in the drawings, and have now been corrected.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 7.2.9.3
Drawing #:
Zone Location:

Reviewer Identification: SWAN
Rev Comment #: 247
Comment Category: 1
Sheet #:

COMMENT

The treatment for Feedstream 9C - Contained Liquid, appears to be stabilization. Contained liquid in labpacks may require other treatment standards. Ignitable/Reactive/Corrosive liquids will be dealt with and special handling should be expanded upon.

JUSTIFICATION

BDAT and LDR compliance may apply to feedstreams received in WRAP 2A (9C).

RECOMMENDATION

A better description of how these wastes will be handled could be developed.

WHC DISPOSITION

Assigned WHC Cog: PAULY
Date Assigned: February 8, 1994
Reviewer Signature:

Assigned Category:
Comment Status:
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Nelson

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Disagree. It is not clear where specifically in section 7.2.9.3 this comment is referring to (this section covers 14 pages). Contained liquids from Feedstream 9C will be deactivated to remove the characteristics of ignitability, corrosivity, or reactivity. Appropriate treatment technologies are chemical reduction for ignitable oxidizers, pH neutralization for corrosives, and chemical oxidation or reduction for reactives. This is discussed in section 7.2.9.3.2(g). The waste will be grouted only after deactivation. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 7.2.3
Drawing #:
Zone Location:

Reviewer Identification: SWAN
Rev Comment #: 248
Comment Category: 2
Sheet #:

COMMENT

Include a statement in the introduction to Codes, Standards and Regulations as to the relevance of the requirements listed, e.g., the applicable portions of the following regulations will be incorporated into the design documentation.

JUSTIFICATION

Design requirements are required per these regulations.

RECOMMENDATION

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 8, 1994
Reviewer Signature:

Assigned Category: 2
Comment Status:
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Basu

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Revised section 7.1.4.g to clarify that only applicable portions of the Codes, Standards and Regulations listed are relevant.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: I
 Section Paragraph #: 5.1.8
 Drawing #:
 Zone Location:

Reviewer Identification: SWAN
 Rev Comment #: 249
 Comment Category: 2
 Sheet #:

COMMENT

The dry materials facility (DMF) in the 200 East Area could be utilized by WRAP 2A. The DMF is set up to store bulk quantities of dry solids and to mix materials to make grout. The DMF was designed to produce grout for the Grout Treatment Facility and the storage bins at DMF are empty.

JUSTIFICATION

Reducing cost, as well as waste, has been stated in the ACDR is an important consideration for WRAP 2A.

RECOMMENDATION

WHC DISPOSITION

Assigned WHC Cog: LAMBERD Assigned Category: 3
 Date Assigned: February 8, 1994 Comment Status:
 Reviewer Signature: [Signature] ESQ Review Number:

This should be submitted as an ECCEL program issue and not as a design review comment.

Final Disposition

A-E Lead Engineer: Voke Final Category: 4/5

ROM Cost Impact:

Construction Package Number:

If these vessels are no longer used, meet WRAP 2A requirements, and can be moved to the WRAP 2A site, then they may be of use. If the tanks remain in their present position, they cannot influence the design of WRAP 2A. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 2.2.2 (5)
Drawing #:
Zone Location:

Reviewer Identification: SWAN
Rev Comment #: 250
Comment Category: 2
Sheet #:

COMMENT

New empty 55 gallon drums are being compacted after they are emptied during the treatment process. Empty drums, that previously contained wastes, can be reused. WAC 173-303-160 provides the criteria for empty waste containers. Drums/containers can be considered empty (and therefore reusable) if: (1) less than one inch of waste remains at the bottom of the container, or inner liner, or the volume of waste remaining in the container, or inner liner, is equal to 1% or less of the container's total capacity, or, if the container's total capacity is greater than 110 gallons, the volume of waste remaining in

JUSTIFICATION

the container, or inner liner, is no more than 0.3% of the container's total capacity - WHICHEVER OF THE ABOVE IS LEAST. (2) If the container, or liner, held acutely hazardous waste, as defined in WAC 173-303-040, it must be triple rinsed in accordance with WAC 173-303-160(b).

RECOMMENDATION

Explore options of reusing 55-gallon drums and reducing use/need for new drums.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 8, 1994
Reviewer Signature:

Assigned Category: 5
Comment Status:
ESQ Review Number:

WHC must evaluate to determine if economics justify this action or design requirements to A/e will be changed.

Final Disposition

A-E Lead Engineer: Chapin

Final Category: 5

ROM Cost Impact:

Construction Package Number:

WHC action. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: Table 2-3
Drawing #:
Zone Location:

Reviewer Identification: SWAN
Rev Comment #: 251
Comment Category: 2
Sheet #:

COMMENT

Since waste acceptance plan and waste analysis plan studies have not yet been completed, waste codes may be preliminary.

JUSTIFICATION

Listed waste codes could be considered as actual data by readers of the ACDR.

RECOMMENDATION

Add a reference asterisk, and/or footnote, to clarify the waste codes are a preliminary analysis of what the expected wastestreams will include.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD Assigned Category: 5/4
Date Assigned: February 8, 1994 Comment Status:
Reviewer Signature: [Signature] ESQ Review Number:

SDRD will be revised to state that the codes are based on preliminary info and will be established at time of waste generation. ACDR should also be corrected.

Final Disposition

A-E Lead Engineer: Basu Final Category: 3/5

ROM Cost Impact:

Construction Package Number:

Agree. Revised Table 2-3 per WHC recommendation. The SDRD needs to be revised to make the same statement.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 3.3.3.3 and others
Drawing #:
Zone Location:

Reviewer Identification: SWAN
Rev Comment #: 252
Comment Category: 2
Sheet #:

COMMENT

The UBC building occupancy classifications has been changed to NFPA 101 "special purpose industrial" occupancy classification based on the understanding that no ignitables or reactives in excess of the exempt amounts specified by UFC/UBC will be allowed in the facility. There is no statement as to how these materials will be removed from WRAP 2A, and/or where they will be stored, treated, or disposed of.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 5
Comment Status: 0

WHC to revise source term documents per operations directions. Comment to be addressed in WHC meeting with Solid Waste Project Integration, Restoration Projects, Fire Protection and RCRA Unit Permits. Additionally, the intent of this document is not to address disposition of all wastes on the Hanford site. A detailed overview of the Solid Waste Operations Complex can be provided upon request.

Reviewer Signature: _____ ESQ Review Number:

Final Disposition

A-E Lead Engineer: Basu

Final Category: 5

ROM Cost Impact:

Construction Package Number:

See response to comment 356. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 3.4.1
Drawing #:
Zone Location:

Reviewer Identification: LECLAIR
Rev Comment #: 253
Comment Category: 3
Sheet #:

COMMENT

The Value Engineering Assessment was conducted in October 1993 not in 1994 as written.

JUSTIFICATION

Inherent!

RECOMMENDATION

Change the date to 1993.

WHC DISPOSITION

Assigned WHC Cog: LECLAIR
Date Assigned: February 8, 1994
Reviewer Signature: MD deClair

Assigned Category: 3
Comment Status:
ESQ Review Number: N/A

Incorporate recommended change.

03/02/94

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised date to 1993.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 7.2.10.3.2.a
Drawing #:
Zone Location:

Reviewer Identification: LECLAIR
Rev Comment #: 254
Comment Category: 3
Sheet #:

COMMENT

To be consistent, the third FDC citation in this section should be in italics.

JUSTIFICATION

The use of italics helps to emphasize that this is a direct quote from the FDC.

RECOMMENDATION

Change font on this FDC 2.2.2.1 text to italics.

WHC DISPOSITION

Assigned WHC Cog: LECLAIR
Date Assigned: February 8, 1994
Reviewer Signature: M.D. LeClair

Assigned Category: 3
Comment Status:
ESQ Review Number: N/A

Incorporate recommendation.

03/02/94

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Text changed to italics.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 7.2.10.3.b
Drawing #:
Zone Location:

Reviewer Identification: LECLAIR
Rev Comment #: 255
Comment Category: 1
Sheet #:

COMMENT

The sampling schedule provided in the interpretation on page 1-96 is not accurate when compared to the numbers provided on drawing H-2-140633.

JUSTIFICATION

There should not be inconsistencies between two part of the ACDR documentation.

RECOMMENDATION

Change the schedule in the ACDR to reflect a maximum of 39 sample per shift being sent to external analytical facility and a maximum of 12 samples per shift being analyzed within the SMA.

WHC DISPOSITION

Assigned WHC Cog: LECLAIR
Date Assigned: February 8, 1994
Reviewer Signature: MA LeClair

Assigned Category: 1
Comment Status:
ESQ Review Number: N/A

Agree with recommendation.

03/02/94

Final Disposition

A-E Lead Engineer: Voke

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Sample schedule and section 7.2.10.3.b revised for consistency.

WRAP 2A ACDR Review ,
Design Review Comment Submittal

Document Title: WRAP 2A ACDR Reviewer Identification: LECLAIR
Volume #: IIIA Rev Comment #: 256
Section Paragraph #: Appendix B, SMA PFD H-2-140633 Sht 1 Comment Category: 3
Drawing #: Equipment Data Sht, Item GB-05-601 A & B Sheet #: 1 of 1
Zone Location: unit load size

COMMENT

The unit load size of 1 liter (minimum) samples in shielded sample bombs is sufficient. The "1000 gal" also shown on this line of the data sheet appears to be a typo.

JUSTIFICATION

1000 gal unit load size is far in excess of what is required.

RECOMMENDATION

Remove reference to 1,000 gal.

WHC DISPOSITION

Assigned WHC Cog: LECLAIR Assigned Category: 3
Date Assigned: February 8, 1994 Comment Status:
Reviewer Signature: MD Leclair ESQ Review Number: N/A

Agree with recommendation.

03/02/94

Final Disposition

A-E Lead Engineer: Basu Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Removed reference to 1000 gallon.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR Reviewer Identification: LECLAIR
Volume #: IIIA Rev Comment #: 257
Section Paragraph #: Appendix B, SMA PFD H-2-140633, Sht. 1 Comment Category: 3
Drawing #: Equipment Data Sht, Item GB-05-601 C & D Sheet #: Page 1 of 1
Zone Location: Unit Load Size

COMMENT

The unit load size of "1 liter (minimum) samples" is sufficient and reference to 1,000 gal should be deleted.

JUSTIFICATION

The 1000 gal unit load size appears to be a typo.

RECOMMENDATION

Correct Unit Load Size text as appropriate.

WHC DISPOSITION

Assigned WHC Cog: LECLAIR Assigned Category: 3
Date Assigned: February 8, 1994 Comment Status:
Reviewer Signature: MD. LeClair ESQ Review Number: N/A

Agree with recommendation.

03/02/94

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Removed reference to 1000 gallon.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #:
Drawing #: H-2-140633, sht 1 of 2
Zone Location: 8

Reviewer Identification: LECLAIR
Rev Comment #: 258
Comment Category: 3
Sheet #: 1

COMMENT

It could be argued that the sludge/particulate in grout and sludge/particulate in polymer processes are actually microencapsulation processes. It is confusing to refer to the product samples from the two processes (forming stream 19 on the PFD) as "macroencapsulated product."

JUSTIFICATION

Macroencapsulation is used to refer to vibro-grouted product also. Since vibro-grouted product will not be sampled, the use of the term "macroencapsulated product" is misleading and confusing.

RECOMMENDATION

Delete "macroencapsulated" from title for both streams contributing to stream #19 on the PFD.

WHC DISPOSITION

Assigned WHC Cog: LECLAIR
Date Assigned: February 8, 1994
Reviewer Signature: MS LeClair

Assigned Category: 3
Comment Status:
ESQ Review Number: N/A

Agree with recommendation.

03/02/94

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Removed reference to "macroencapsulated product".

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #:
Drawing #: H-2-140633
Zone Location: 8F

Reviewer Identification: LECLAIR
Rev Comment #: 259
Comment Category: 3
Sheet #: 1 of 2

COMMENT

Should refer to "active sample/Box Breakdown Area" instead of "active sample size reduction area" which is shown specifically on drawing H-2-140628 sht 4 of 4.

JUSTIFICATION

The sample associated with this description is shown on drawing H-2-140628, sheet 4 of 4, which is the PFD for the Box Breakdown Area.

RECOMMENDATION

Change title of sample associated with drawing H-2-140628 to "active sample Box Breakdown Area" and make reference to "sht 4 of 4" in association with the drawing.

WHC DISPOSITION

Assigned WHC Cog: LECLAIR

Date Assigned: February 8, 1994

Reviewer Signature: M. LeClair

Assigned Category: 3

Comment Status:

ESQ Review Number: N/A

Agree with recommendation.

03/02/94

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Incorporated drawing text changes as recommended.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #:
Drawing #: H-2-140628
Zone Location: 3E

Reviewer Identification: LECLAIR
Rev Comment #: 260
Comment Category: 3
Sheet #: 4 of 4

COMMENT

The sample exiting the Box Breakdown Area is sample # W2A-S00, not W2A-S03 as shown.

JUSTIFICATION

Sample W2A-S03 on the Sample Management Schedule (H-2-140633, sht. 2 of 2) is associated with the waste feed hopper for the polymer line. Sample W2A-S00 is the sample number associated with the Box Breakdown Samples as specified on the Sample Management Schedule (H-2-140633, sht. 2 of 2).

RECOMMENDATION

Change sample W2A-S03 to W2A-S00 on drawing H-2-140628, sht. 4 of 4 so that it is consistent with the Sample Management Schedule (H-2-140633, sht 2 of 2).

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: February 8, 1994
Reviewer Signature: M.S. DeClan

Assigned Category:
Comment Status: Closed
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Corrected sample no. as recommended.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #:
Drawing #: H-2-140628
Zone Location: 2E

Reviewer Identification: LECLAIR
Rev Comment #: 261
Comment Category: 3
Sheet #: 4 of 4

COMMENT

Samples from the Box Breakdown Area are routed to the Sample Management Area (drawing H-2-140633), not to the Special Waste Treatment (H-2-140650) as indicated.

JUSTIFICATION

The Special Waste Treatment area is not equipped to manage samples obtained from other plant process areas.

RECOMMENDATION

Change drawing number associated with sample to H-2-140633 (replacing the reference to drawing H-2-140650):

WHC DISPOSITION

Assigned WHC Cog: HORGOS

Date Assigned: February 8, 1994

Reviewer Signature: MD. LeClair

Assigned Category:

Comment Status: Closed

ESQ Review Number:

03/02/94
Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Corrected drawing no. as recommended.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #:
Drawing #: H-2-140633
Zone Location: 8F

Reviewer Identification: LECLAIR
Rev Comment #: 262
Comment Category: 3
Sheet #: 1 of 2

COMMENT

Drawing H-2-140727, in association with "active sample/HVAC Exhaust" is not part of the drawing package.

JUSTIFICATION

I am unable to verify the cross reference to the HVAC Exhaust sample as the reference drawing is not in this review package.

RECOMMENDATION

The drawing number H-2-140727 should be verified and it should be confirmed that the correct drawing references an active HVAC Exhaust sample going to the Sample Management Area as a cross-referencing mechanism between drawings.

WHC DISPOSITION

Assigned WHC Cog: LECLAIR
Date Assigned: February 8, 1994
Reviewer Signature: MS. Leclair

Assigned Category: 3
Comment Status:
ESQ Review Number: N/A

Agree with recommendation.

03/02/94

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Removed reference to H-2-140727.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #:
Drawing #: H-2-140633
Zone Location: 8E

Reviewer Identification: LECLAIR
Rev Comment #: 263
Comment Category: 3
Sheet #: 1 of 2

COMMENT

The active waste samples from Special Waste Area are shown on Drawings H-2-140649, 650, and 651.

JUSTIFICATION

Drawing H-2-140649 shows samples being routed from the sort table, drawing H-2-140650 shows these same Special Waste samples (#'s W-2A-S13 and W-2A-S02) being routed to the Sample Management Area and Drawing H-2-140651 scrubber samples (#'s W2A-S34 and W2A-S35) being routed from Special Waste Off-Gas to the Sample Management Area. Therefore, all three drawings make reference to active waste samples being routed directly (or indirectly) to the SMA.

RECOMMENDATION

Add in a reference to Drawing H-2-140650 on Section 8E of Drawing H-2-140633 sht. 1 of 2.

WHC DISPOSITION

Assigned WHC Cog: LECLAIR
Date Assigned: February 8, 1994
Reviewer Signature: MS. LeClair

Assigned Category: 3
Comment Status:
ESQ Review Number: N/A

Agree with recommendation.

03/02/94

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Added reference to H-2-140650 .

2-263

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #:
Drawing #: H-2-140628
Zone Location: 3D

Reviewer Identification: LECLAIR
Rev Comment #: 264
Comment Category: 3
Sheet #: 1 of 4

COMMENT

The sample shown on the condensate pump (C-05-522) should be deleted.

JUSTIFICATION

There is no basis for requiring this sample and it is inconsistent with the sampling schedule shown on drawing H-2-140633 sht. 2 of 2.

RECOMMENDATION

Delete all reference to a sample on the condensate pump on drawing H-2-140628 sht. 1 of 4.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
Date Assigned: February 8, 1994
Reviewer Signature: MD Leclair

Assigned Category:
Comment Status: closed
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Deleted sample reference on PFD as recommended. Sample points for troubleshooting will be identified during Title design.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #:
Drawing #: H-2-140633
Zone Location: 3E/3F

Reviewer Identification: LECLAIR
Rev Comment #: 265
Comment Category: 3
Sheet #: 1 of 2

COMMENT

Both the inactive and active samples from the Liquid Waste Area (referred to as "Secondary Waste Area" on the drawing index) are shown on drawing H-2-140657 not H-2-140659 as documented.

JUSTIFICATION

There is no drawing number H-2-140659 in this drawing set, and reference to "Liquid Waste Area" is inconsistent with the "Secondary Waste Area" term used elsewhere.

RECOMMENDATION

Change both references to drawing H-2-140659 to read H-2-140657 and use consistent terms to refer to the area where these samples are being taken.

WHC DISPOSITION

Assigned WHC Cog: LECLAIR
Date Assigned: February 8, 1994
Reviewer Signature: MS DeClair

Assigned Category: 3
Comment Status:
ESQ Review Number: N/A

Agree with recommendation.

03/02/94

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Corrected drawing references as recommended.

D-270

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #:
Drawing #: H-2-140633
Zone Location: 8A

Reviewer Identification: LECLAIR
Rev Comment #: 266
Comment Category: 3
Sheet #: 2 of 2

COMMENT

The frequency for product samples (Sample Management sample W2A-S12) should be "non-routine (only used when analysis of samples acquired on-line are inconclusive)" as compared to the 10% rate specified.

JUSTIFICATION

The 10% sampling of product will be conducted on-line. Additional sampling in the case of inconclusive analysis results will be on a non-routine basis.

RECOMMENDATION

Delete frequency of "10% of lot (max)/(Note 1)" and replace with the following for sample W2A-S12: "non-routine (only used when analysis of samples acquired on-line are inconclusive)"

WHC DISPOSITION

Assigned WHC Cog: LECLAIR
Date Assigned: February 8, 1994
Reviewer Signature: MS. LeClair

Assigned Category: 3
Comment Status:
ESQ Review Number: N/A

Agree with recommendation.

03/02/94

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised drawing per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: IV
 Section Paragraph #:
 Drawing #: H-2-140633
 Zone Location: 7F

Reviewer Identification: LECLAIR
 Rev Comment #: 267
 Comment Category: 3
 Sheet #: 2 of 2

COMMENT

Delete sample W2A-S03.

JUSTIFICATION

This sample is an in-process sample which requires a 2 week turnaround. This is an unacceptable operational approach and did not fly for the sludge/particulate conditioning area. Similar samples in the sludge/particulate conditioning area were removed in the last round of ACDR review.

RECOMMENDATION

Delete the W2A-S03 sample block from drawing H-2-140633.

WHC DISPOSITION

Assigned WHC Cog: LECLAIR

Assigned Category: 3

Date Assigned: February 8, 1994

Comment Status:

Reviewer Signature: MD Leclair

ESQ Review Number: N/A

Agree with recommendation.

03/02/94

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Sample W2A-S03 deleted. Sample points for troubleshooting will be identified and added during Title design.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #:
Drawing #: H-2-140633
Zone Location: 6/7-E/F

Reviewer Identification: LECLAIR
Rev Comment #: 268
Comment Category: 3
Sheet #: 2 of 2

COMMENT

For both samples W2A-S20 and W2A-S21, the "turn-round time" should be 2 weeks and the "category" should be A.

JUSTIFICATION

Neither of these samples require a quick turnaround on analysis. In addition, melt index and impurities determinations cannot be performed in the SMA. An external facility analysis is required and the associated turnaround time is 2 weeks.

RECOMMENDATION

For both samples W2A-S20 and W2A-S21, "turn-round time" should be 2 weeks as compared to "< 1 hr" and the category should be A instead of "B."

WHC DISPOSITION

Assigned WHC Cog: LECLAIR
Date Assigned: February 8, 1994
Reviewer Signature: M.D. LeClair

Assigned Category: 3
Comment Status:
ESQ Review Number: N/A

Agree with recommendation.

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised drawing per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #:
Drawing #: H-2-140633
Zone Location: 3/4F

Reviewer Identification: LECLAIR
Rev Comment #: 269
Comment Category: 3
Sheet #: 2 of 2

COMMENT

Sample numbers W2A-S13 and W2A-S02, appearing in both the "Special Waste" block and in the "WRAP 2A Sample Requirements" matrix should be switched.

JUSTIFICATION

The sample numbering sequence used here is sequenced based on the stage of the process where the samples are acquired. For example, all incoming waste samples are numbered using the first number set in the series (W2A-S01, -S02), and all product samples are denoted by a second number set in the series (W2A-S10, -S11, -S12). Therefore, it is a typo to identify the Special Waste incoming waste sample as W2A-S13 and to identify the Special Waste product sample as W2A-S02. These two are reversed.

RECOMMENDATION

Use W2A-S02 as the Special Waste incoming waste sample designator and use W2A-S13 as the Special Waste product sample designator.

WHC DISPOSITION

Assigned WHC Cog: LECLAIR
Date Assigned: February 8, 1994
Reviewer Signature: MG LeClair

Assigned Category: 3
Comment Status:
ESQ Review Number: N/A

Agree with recommendation.

03/02/94

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised drawing per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #:
Drawing #: H-2-140633
Zone Location: 2E

Reviewer Identification: LECLAIR
Rev Comment #: 270
Comment Category: 3
Sheet #: 2 of 2

COMMENT

Reference to drawing H-2-140650 should be made in association with samples W2A-S02 and W2A-S13 on the WRAP 2A Sample Requirements matrix.

JUSTIFICATION

Drawing H-2-140649 does not specifically refer to sample numbers W2A-S02 and W2A-S13.

RECOMMENDATION

On the first and second row of the WRAP 2A Sample Requirements matrix, change PFD from H-2-140649 to H-2-140650.

WHC DISPOSITION

Assigned WHC Cog: LECLAIR
Date Assigned: February 8, 1994
Reviewer Signature: [Signature]

Assigned Category: 3
Comment Status:
ESQ Review Number: N/A

Agree with recommendation.

03/02/94

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised drawing per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: IV
 Section Paragraph #:
 Drawing #: H-2-140633
 Zone Location: 1E

Reviewer Identification: LECLAIR
 Rev Comment #: 271
 Comment Category: 3
 Sheet #: 2 of 2

COMMENT

On the WRAP 2A Sample Requirements matrix, an incorrect equipment item reference is made for samples W2A-S01 and W2A-S12.

JUSTIFICATION

Equipment item #GB-05-600 is not shown on the associated drawing (H-2-140633 sht 1 of 2).

RECOMMENDATION

Make the equipment item numbers associated with samples W2A-S01 and W2A-S12 on both the WRAP 2A Sample Requirements matrix (H-2-140633, sht 2 of 2) and on H-2-140633 sht 1 of 2 consistent with one another.

WHC DISPOSITION

Assigned WHC Cog: LECLAIR Assigned Category: 3
 Date Assigned: February 8, 1994 Comment Status:
 Reviewer Signature: MD. Seclair ESQ Review Number: N/A

Agree with recommendation.

03/02/94

Final Disposition

A-E Lead Engineer: Basu Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Removed reference to GB-05-600.

2-276

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #:
Drawing #: H-2-140633
Zone Location: 3E

Reviewer Identification: LECLAIR
Rev Comment #: 272
Comment Category: 3
Sheet #: 2 of 2

COMMENT

Should use the term "sludge/particulate grout product" instead of simply "grout product" in association with sample W2A-S11.

JUSTIFICATION

The term "grout product" is too general and may be confused with vibro-infilled grout product.

RECOMMENDATION

Replace "grout product" with "sludge/particulate grout product" as the material to be sampled for sample W2A-S11 in the WRAP 2A Sample Requirements matrix.

WHC DISPOSITION

Assigned WHC Cog: LECLAIR
Date Assigned: February 8, 1994
Reviewer Signature: MD LeClair

Assigned Category: 3
Comment Status:
ESQ Review Number: N/A

Agree with recommendation.

03/02/94

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text to read "sludge/particulate grout product".

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: IV
 Section Paragraph #:
 Drawing #: H-2-140633
 Zone Location: 3/4D

Reviewer Identification: LECLAIR
 Rev Comment #: 273
 Comment Category: 3
 Sheet #: 2 of 2

COMMENT

Add a note to the sample frequency description for sample W2A-S33 to clarify that analysis occurs on a "twice per month" basis but that sampling of the HVAC exhaust is performed on a continuous basis.

JUSTIFICATION

In most cases, sampling frequency and analysis frequency are the same. In the case of the HVAC exhaust sample, this is not the case, so when a frequency is provided, the reader is not certain whether it applies to the analysis or the sample acquisition.

RECOMMENDATION

For the sample W2A-S33 frequency, reference a "Note 3." Add a Note 3 to the drawing which reads something like: "HVAC exhaust is sampled continuously but analysis of accumulated sample media occurs only two times per month."

WHC DISPOSITION

Assigned WHC Cog: LECLAIR
 Date Assigned: February 8, 1994
 Reviewer Signature: ME. LeClair

Assigned Category: 3
 Comment Status:
 ESQ Review Number: N/A

Agree with recommendation.

03/02/94

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised drawing per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #:
Drawing #: H-2-140633
Zone Location: 3A/B

Reviewer Identification: LECLAIR
Rev Comment #: 274
Comment Category: 3
Sheet #: 2 of 2

COMMENT

For sample W2A-S26, add Bulk Specific Gravity as a third determinant.

JUSTIFICATION

Bulk specific gravity is an indicator of the homogeneity of the liquid grout and translates to performance of the grout mixing system. This is viewed as a process monitoring determination.

RECOMMENDATION

Add "Bulk Specific Gravity" as the third determinant for sample W2A-S26 in the Grout sample block. The associated turn-round time is "< 1 hr"; frequency is "10/day"; and category is "B."

WHC DISPOSITION

Assigned WHC Cog: LECLAIR
Date Assigned: February 8, 1994
Reviewer Signature: Mr. J. L. Cain

Assigned Category: 3
Comment Status:
ESQ Review Number: N/A

Agree with recommendation.

03/02/94

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised drawing per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #:
Drawing #: H-2-140633
Zone Location: 5B

Reviewer Identification: LECLAIR
Rev Comment #: 275
Comment Category: 3
Sheet #: 2 of 2

COMMENT

In the Grout sample block, reference is made to equipment item number T-05-213A/B in association with sample W2A-S11, which is inconsistent with the equipment item number provided on drawing H-2-140638.

JUSTIFICATION

Inconsistency exists between two drawings in the ACDR package.

RECOMMENDATION

Change the equipment number used in association with sample W2A-S11 of the Grout samples block to "T-05-214 A & B."

WHC DISPOSITION

Assigned WHC Cog: LECLAIR

Assigned Category: 3

Date Assigned: February 8, 1994

Comment Status:

Reviewer Signature: [Signature]

ESQ Review Number: N/A

Agree with recommendation.

03/02/94

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised equipment no. to read T-05-214 A/B.

WRAP ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #:
Drawing #: H-2-140633
Zone Location: 1/2D

Reviewer Identification: LECLAIR
Rev Comment #: 276
Comment Category: 3
Sheet #: 1 of 2

COMMENT

Need to include solids content as an additional analytical capability of the SMA.

JUSTIFICATION

Sample W2A-S32 requires a solids content determination in "< 1 hr" time frame. The only way this can be accomplished is to conduct this analysis in the SMA. This has already been recognized as indicated by the information included in the Secondary Waste sample block on drawing H-2-140633 sht 2 of 2. This capability should be provided for in the SMA.

RECOMMENDATION

In note 7 of H-2-140633 sht 1 of 2, add "solids content" in the listing of analytical capabilities in the SMA.

WHC DISPOSITION

Assigned WHC Cog: LECLAIR
Date Assigned: February 8, 1994
Reviewer Signature: M.D. LeClair

Assigned Category: 3
Comment Status:
ESQ Review Number: N/A

Agree with recommendation.

Final Disposition

A-E Lead Engineer: Basu

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: IV
 Section Paragraph #:
 Drawing #: H-2-140713
 Zone Location: B/C-4

Reviewer Identification: PAULY
 Rev Comment #: 277
 Comment Category: 1
 Sheet #: 1

COMMENT

In the current layout, the removal of used SWP laundry requires that such laundry pass right by the lunchroom on the way to the soiled laundry room.

JUSTIFICATION

Having soiled laundry pass right by the lunch room on a routing basis is unacceptable from a co-mingling perspective.

RECOMMENDATION

Change layout so that soiled laundry can be removed fromn the facility without passage near administrative areas (especially lunch rooms and normally occupied areas).

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
 Date Assigned: February 8, 1994
 Reviewer Signature: [Signature]

Assigned Category: 1
 Comment Status:
 ESQ Review Number:

Final Disposition

A-E Lead Engineer: Bowlin

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Renamed laundry rooms to clarify SWP from non-SWP. Additional exterior provided for removal of SWP laundry from Zone II Area without passing near administrative areas.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IIIA
Section Paragraph #: App D
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 278
Comment Category: 2
Sheet #:

COMMENT

Fire Hazards Analysis - Consider using a pre-action sprinkler for the enclosures, or perhaps a limited volume automatic system.

JUSTIFICATION

Improved Fire Protection.

RECOMMENDATION

Evaluate identified alternatives.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 2
Comment Status: closed

See WHC recommendation.

Reviewer Signature:

ESQ Review Number:

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree. Added a paragraph to section 4.3 to state that preaction or limited volume sprinkler system will be evaluated in Title design for probable use in specific process enclosures where wet pipe sprinkler systems and/or large volumes of water could pose clean up or criticality problems.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 6.2.2.3
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 279
Comment Category: 4
Sheet #:

COMMENT

The current building has R14 wall panels and R21 roof panels. Consideration should be given to using higher R value construction.

JUSTIFICATION

Energy conservation.

RECOMMENDATION

The Title 1 Energy Conservation Report should contain a Life Cycle analysis of higher R value construction methods.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 8, 1994
Reviewer Signature: [Signature]

Assigned Category: 4
Comment Status:
ESQ Review Number:

Final Disposition

A-E Lead Engineer: Bowlin

Final Category: 4

ROM Cost Impact:

Construction Package Number:

This is a Title I design activity. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #:
Drawing #: H-2-140657
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 280
Comment Category: 1
Sheet #:

COMMENT

The FDC requires removal of flammable vapors upstream of Heaters - the CDR did not comply in the waste tank system where tank exhaust could have significant concentrations of organic vapors. It cannot be determined whether the ACDR configuration has resolved this issue.

JUSTIFICATION

Fire/explosion prevention.

RECOMMENDATION

Demonstrate that ACDR configuration has resolved this issue.

WHC DISPOSITION

Assigned WHC Cog: PAULY Assigned Category:
Date Assigned: February 8, 1994 11/18/94 Comment Status:
Reviewer Signature: TRP ESQ Review Number:

Final Disposition

A-E Lead Engineer: Chapin

Final Category: 4

ROM Cost Impact:

Construction Package Number:

CDR basis was VES polymer where volatile organics were much more likely to get into the liquid waste tanks. Risk of organics with sufficient volatility to threaten HVAC systems with flammable vapors is very low for the ACDR design (i.e., polyethylene). Also, current view is that heaters are likely not required in HVAC. To be verified during Title design. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: IV
Drawing #: H-2-140657
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 281
Comment Category: 1
Sheet #: 1

COMMENT

The HEPA filters on the Tank exhausts could be susceptible to early pluggage from condensation of high humidity air.

JUSTIFICATION

Plant operability.

RECOMMENDATION

Provide technical justification that moisture condensation on the Tank exhaust HEPAs will not be a problem.

WHC DISPOSITION

Assigned WHC Cog: PAULY Assigned Category:
Date Assigned: February 8, 1994 9/18/94 Comment Status:
Reviewer Signature: PAULY ESQ Review Number:

Final Disposition

A-E Lead Engineer: Gehret

Final Category: 4

ROM Cost Impact:

Construction Package Number:

No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 1
 Section Paragraph #: 6.3.3
 Drawing #:
 Zone Location:

Reviewer Identification: PAULY
 Rev Comment #: 282
 Comment Category: 1
 Sheet #:

COMMENT

The CDR HVAC system had a bag filter serving the shredder/pugmill enclosures. It cannot be ascertained whether the ACDR HVAC system also has a bag filter, but a disposable filter would be preferable to a bag filter.

JUSTIFICATION

Changing a bag filter is an onerous and difficult task.

RECOMMENDATION

Identify whether the current design configuration has a bag filter; provide justification for using a bag filter rather than a disposable type filter.

WHC DISPOSITION

Assigned WHC Cog: HORGOS
 Date Assigned: February 8, 1994
 Reviewer Signature: 7N2 3/4/94

Assigned Category:
 Comment Status: over cat 4
 ESQ Review Number:

Final Disposition

A-E Lead Engineer: Gehret

Final Category: 4

ROM Cost Impact:

Construction Package Number:

No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 5.9.4
Drawing #:
Zone Location:

Reviewer Identification: PAULY
Rev Comment #: 283
Comment Category: 1
Sheet #:

COMMENT

There is a concern that mercury could condense in the ducting from the mercury evaporator and that mercury could be corrosive to the ducting.

JUSTIFICATION

Plant operability & maintainability.

RECOMMENDATION

Provide justification that mercury condensation and corrosion due to mercury will not be detrimental to the facility or harmful to personnel.

WHC DISPOSITION

Assigned WHC Cog: PAULY

Assigned Category:

Reviewer Signature: PAULY

Comment Status:

ESQ Review Number:

Final Disposition

A-E Lead Engineer: Nelson

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree. Revised section 5.9.3.2. to state that diverter gate will be set to route shredded waste based on visual observation of the waste prior to shredding.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: APP. D
Drawing #: LOGIC DIAGRAM
Zone Location:

Reviewer Identification: PENNALA
Rev Comment #: 284
Comment Category: 2
Sheet #:

COMMENT

Duration for activity 1122AA0006 (KEH BID PKG PREP/IFA/RFQ) is excessive. If definitive design is completed by January 26, 1996, then KEH bid package preparation including Bid & Award Contract should extend from December 1, 1995 through May 4, 1996 (98 work days).

JUSTIFICATION

Scope of work for activity 1122AA0006 not clearly defined.

RECOMMENDATION

Provide separate activities for "Bid Pkg Prep" and "Bid & Award General Construction Contract". Revise duration for "Bid Pkg Prep" to complete on 2/16/96. Add activity "Bid & Award General Construction Contract" to complete on 5/4/96. Revise milestone 1122AA0007 to "Award WRAP 2A General Construction Contract" to complete on 5/4/96.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature:

Assigned Category: 2
Comment Status:
ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 2

ROM Cost Impact:
Package Number:

Construction

Accept WHC disposition. UE&C will revise the schedule.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: II
 Section Paragraph #: APP. D
 Drawing #: LOGIC DIAGRAM
 Zone Location:

Reviewer Identification: PENNALA
 Rev Comment #: 285
 Comment Category: 2
 Sheet #:

COMMENT

Schedule should include activities for administrative and technical submittals.

JUSTIFICATION

We are assuming this activity, including approval, would be for about 12 weeks (60 work days) and would yield a mobilization date at the job site (1123CA0001) of approximately July 27, 1996.

RECOMMENDATION

Revise schedule to reflect submittal requirements.

WHC DISPOSITION

Assigned WHC Cog: SWITA
 Date Assigned: February 8, 1994
 Reviewer Signature:

Assigned Category: 2
 Comment Status:
 ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 2.

ROM Cost Impact:
 Package Number:

Construction

UE&C to revise schedule to show adequate durations for submittals after award of Construction contract to GCC.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: APP. D
Drawing #:
Zone Location:

Reviewer Identification: PENNALA
Rev Comment #: 286
Comment Category: 2
Sheet #:

COMMENT

Activity "Bid & Award Subcontract," 1123CA0010 is not clearly defined.

JUSTIFICATION

This item is not required as the General Contractor would have already received subcontractor bids during the sealed bid process or within days of the award. Without activity 1123CA0010, identified successor activities would immediately follow submittal approvals (added above).

RECOMMENDATION

Provide clarification for this activity or delete.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature: *[Signature]*

Assigned Category: 2
Comment Status:
ESQ Review Number: N/A

Accept recommendation. Twelve weeks for submittal may be substituted if this activity is deleted (see comment #285).

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 2

ROM Cost Impact:
Package Number:

Construction

Accept WHC disposition. Schedule will be revised to clarify in accordance with discussion on 2/17/94.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: APP. D
Drawing #: LOGIC DIAGRAM
Zone Location:

Reviewer Identification: PENNALA
Rev Comment #: 287
Comment Category: 2
Sheet #:

COMMENT

Item 1125CF0011 (install transformer and switchgear) and other electrical activities would not be on critical path as long as contractor could get started after approval of product submittals in July.

JUSTIFICATION

Unclear logic relationships may cause inaccurate critical path restraints.

RECOMMENDATION

Provide clarification to "Subcontract" comment #286 above, and revise schedule as required.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature: *[Signature]*

Assigned Category: 2
Comment Status:
ESQ Review Number: N/A

Accept recommendation. UE&C to re-evaluate critical path.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 2

ROM Cost Impact:
Package Number:

Construction

Accept WHC disposition. Schedule will be revised based on discussions with WHC on 2/17/94.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: APP. D
Drawing #: LOGIC DIAGRAM
Zone Location:

Reviewer Identification: PENNALA
Rev Comment #: 288
Comment Category: 2
Sheet #:

COMMENT

Under the process equipment area we do not understand the activities, (typically shown as three months in length), called out as "procure" the equipment.

JUSTIFICATION

The successor to these activities is usually the fabrication and delivery. If the general contractor could start his subcontractors to fabricate approximately three months after award, it would allow for more time in the field for installation, testing and final buyout.

RECOMMENDATION

Provide clarification to "procure equipment" to determine realistic schedule impact. Revise schedule as required.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature:

Assigned Category: 2
Comment Status:
ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 2

ROM Cost Impact:
Package Number:

Construction

Accept WHC disposition. Schedule clarified in discussions with WHC 2/17/94. Schedule will be revised.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: II
 Section Paragraph #: APP. D
 Drawing #: LOGIC DIAGRAM
 Zone Location:

Reviewer Identification: PENNALA
 Rev Comment #: 289
 Comment Category: 2
 Sheet #:

COMMENT

Activity 1129PS0001 "procure computer systems" is again a five months activity that can be started immediately after award and should not be on the critical path, (reference "Bid & Award Subcontract" comment #286 above).

JUSTIFICATION

Unclear logic relationships may cause inaccurate critical path restraints.

RECOMMENDATION

Provide clarification to "Subcontract" comment above, and revise schedule as required.

WHC DISPOSITION

Assigned WHC Cog: SWITA
 Date Assigned: February 9, 1994
 Reviewer Signature:

Assigned Category: 2
 Comment Status:
 ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 2

ROM Cost Impact:
 Package Number:

Construction

Accept WHC disposition. Clarification provided in discussions with WHC 2/17/94. Schedule will be revised.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: APP. D
Drawing #: LOGIC DIAGRAM
Zone Location:

Reviewer Identification: PENNALA
Rev Comment #: 290
Comment Category: 2
Sheet #:

COMMENT

Activity 1125CF0099, "Checkout and Commission Power and Instrumentation Systems" lasts for a full 24 weeks which seems excessive for the amount of manhours in the actual installation. Scope of work for this activity is unclear. If other activities are included (ATPs, punchlist, as-builts, etc...), they should be identified and further considered.

JUSTIFICATION

Duration of six months could be reduced to two months for "checkout and commission...", but duration may be justified for other project completion activities.

RECOMMENDATION

Clarify scope of work for this activity and revise schedule as required.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature:

Assigned Category: 2
Comment Status:
ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 2

ROM Cost Impact:
Package Number:

Construction

Accept WHC disposition. Discussed with WHC 2/17/94. Schedule will be revised to clarify this activity.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: APP. D
Drawing #: LOGIC DIAGRAM
Zone Location:

Reviewer Identification: PENNALA
Rev Comment #: 291
Comment Category: 2
Sheet #:

COMMENT

Based upon knowledge of WRAP 1, we probably need more than the 24 months that has been allotted for construction of Module 2A.

JUSTIFICATION

Comparing the relative complexities of the two projects, WRAP 2A should take longer to construct. Effort must be made to expedite initiation of construction and maximize construction durations.

RECOMMENDATION

If September 30, 1998 is the official TPA milestone for construction completion, improve date for "award of contract" to May 4, 1996 to allow 29 months for construction.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature:

Assigned Category: 2
Comment Status:
ESQ Review Number: N/A

Accept recommendation. Changes to schedule may result in additional construction duration. 29 months is TBD.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 2

ROM Cost Impact:
Package Number:

Construction

Accept WHC disposition: Award date now 3 May 1996.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: APP. D
Drawing #: LOGIC DIAGRAM
Zone Location:

Reviewer Identification: LEE
Rev Comment #: 292
Comment Category: 2
Sheet #:

COMMENT

Activity 1123CA0010, "BID & AWARD SUBCONTRACT" is not defined. If project is to be constructed under one General Construction Contract, what activity is anticipated to be subcontracted here. This activity appears to be tied to "Site Prep" and "Procure Computer Systems", but it is not obvious why a separate 4 mo "subcontract" activity is required.

JUSTIFICATION

The "logical" relationship of this activity is not obvious. Until clarification is provided, the critical path may be inaccurately reflected.

RECOMMENDATION

Provide clarification to this activity. Project position must be established for: one GCC vs. several construction contracts; anticipated subcontracts to GCC; impact to follow-on activities (electrical, mechanical, process equipment...)

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature: J. H. Rell

Assigned Category: 2
Comment Status:
ESQ Review Number: N/A

Accept recommendations. See other similar comments. Design & construction package approach will be discussed in Denver the week of 2/14/94.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 2

ROM Cost Impact:
Package Number:

Construction

Accept WHC disposition. See comments 289 & 286. Schedule will be revised.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: APP. D
Drawing #: LOGIC DIAGRAM
Zone Location:

Reviewer Identification: LEE
Rev Comment #: 293
Comment Category: 2
Sheet #:

COMMENT

Equipment procurements identified in activities 1127XXX do not distinguish between types of procurements. Significantly different procurement durations are required for off-the-shelf equipment compared to design/build items. Need to identify major design/build equipment and reflect on schedule to accommodate for additional time required for "design/review/approve" cycles.

JUSTIFICATION

Identification of major design/build equipment and additional procurement activities required may redefine project critical path. Speculation is that the existing critical path shown through the electrical equipment is incorrect.

RECOMMENDATION

Revise equipment procurement schedule to identify major design/build equipment and the required "design/review/approve" activities.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature: F. H. Lee

Assigned Category: 2
Comment Status:
ESQ Review Number: N/A

Accept recommendation. See other similar comments. The Design and construction package approach will be discussed in Denver the week of 2/14/94.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 2

ROM Cost Impact:
Package Number:

Construction

Accept WHC disposition. Schedule will be revised. Procurement will schedule consistent with design classification (Ref. Comment #164).

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #: 3.0
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 294
Comment Category: 1
Sheet #:

COMMENT

3.5 INDIRECTS, OVERHEADS & EXPENSES

UE&C as the responsible contractor for production of the project estimate has this obligation.

JUSTIFICATION

UE&C's contract with WHC.

RECOMMENDATION

All comments concerning KEH supplying of having responsibility for Fixed Price mark-up needs to be deleted.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature: A Chadwick

Assigned Category: 1
Comment Status:
ESQ Review Number: N/A

UE&C to revise statement to indicate that estimate was built with input from KEH on certain rates which are based on historical data at Hanford. UE&C to indicate that rates are adequate. Any open issues are to be resolved between UE&C and KEH estimating.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 1

ROM Cost Impact:
Number:

Construction Package

All references to Kaiser will be taken out. (Also applies to comments #310, 311, 376)

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #: 3.0
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 295
Comment Category: 1
Sheet #:

COMMENT

3.6.3 Construction Management and Administration
The estimate basis states that construction management includes warehousing -
this is not correct.

JUSTIFICATION

KEH Estimating Factors FY1994.

RECOMMENDATION

Strike Statement.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature: B Chadwick

Assigned Category: 5/2
Comment Status:
ESQ Review Number: N/A

Accept recommendation. Strike warehousing.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 5/4

ROM Cost Impact:
Number:

Construction Package

UE&C assumed this was in fixed price markups - temporary facilities (it is not
in direct costs). WHC to check.

Warehousing requirements will be defined during Title design; however,
statements pertaining to Kaiser will be deleted.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #: 5.0
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 296
Comment Category: 1
Sheet #:

COMMENT

Table 5-2 PROJECT COSTS BY DOE CODE OF ACCOUNTS
WBS 110000 Definitive Design Title I & II:
Title I & II are escalated at the same rates.

JUSTIFICATION

DOE 4700

RECOMMENDATION

These are two different phases of work and should be escalated separate.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994 -
Reviewer Signature: *Chadwick*

Assigned Category: 2
Comment Status:
ESQ Review Number: N/A

UE&C will check 4700 requirement. Since definitive design (Title I & II) is one UE&C contract task, WHC concurs with escalating as one activity.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 2

ROM Cost Impact:
Package Number:

Construction

No change to ACDR after review by UE&C and WHC.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 2
 Section Paragraph #: 5.0
 Drawing #:
 Zone Location:

Reviewer Identification: CHADWICK
 Rev Comment #: 297
 Comment Category: 1
 Sheet #:

COMMENT

TABLE 5-2 PROJECT COSTS BY DOE CODE OF ACCOUNTS
 WBS 330000 Operating Contractor Support -
 This has been placed into the 000 Engineering Code of Account. Section 3.6.4.1 of the estimate basis states that these costs includes electrical tie-ins, HVAC vent and balancing, and load testing. These are construction activities.

JUSTIFICATION

DOE RL 5700.3.

RECOMMENDATION

Move to DOE Cost Code "501" (Buildings)

WHC DISPOSITION

Assigned WHC Cog: <u>SWITA</u>	Assigned Category: 1
Date Assigned: February 8, 1994	Comment Status:
Reviewer Signature: <u>A Chadwick</u>	ESQ Review Number: N/A
Accept recommendation and include as line item in estimate detail for "501"	

Final Disposition

A-E Lead Engineer: McClendon	Final Category: 1
------------------------------	-------------------

ROM Cost Impact:	Construction
Package Number:	

UE&C will move the \$140,000 from DOE Account 330000 Operating Contractor Support to Summary Account 501.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 5.0
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 298
Comment Category: 1
Sheet #:

COMMENT

TABLE 5-2 PROJECT COSTS BY DOE CODE OF ACCOUNTS
WBS 500000 OTHER PROJECT COSTS
Other Project Costs are not shown with contingency applied.

JUSTIFICATION

Current direction from DOE-HQ requires that contingency be applied.

RECOMMENDATION

Also, the cost to date should be broke out somewhere in the estimate along with the rest of the OPC cost detail.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature: L Chadwick

Assigned Category: 5
Comment Status:
ESQ Review Number: N/A

OPC cost detail is maintained by WHC, as such, UE&C is not required to include in their estimate.

During the WRAP-2A ICE review, DOE-RL advised DOE-HQ ICE team that contingency is not applied to OPC's at this site. ICE team advised that a HQ action would be recommended to revisit OPC definitions because of the inconsistencies between the projects at various DOE sites. WRAP & Solid Waste Projects has not been directed by DOE-RL to apply contingency to OPC's.

Final Disposition

A-E Lead Engineer: MccClendon

Final Category: 5

ROM Cost Impact:
Package Number:

Construction

Accept WHC disposition and no change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #: 5.0
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 299
Comment Category: 1
Sheet #:

COMMENT

TABLE 5-3 PROJECT SUMMARY BY UE&C CODE OF ACCOUNTS
The KEH G&A rate is not a flat 3% of contract total. It is 7% on the first \$1 million and 3% thereafter. Also, the rate applies to each fixed price contract not by total fixed price work.

JUSTIFICATION

KEH Estimating Factors.

RECOMMENDATION

Use correct rate.

WHC DISPOSITION

Assigned WHC Cog: SWITA

Date Assigned: February 8, 1994

Reviewer Signature: Chadwick

Assigned Category: 1

Comment Status:

ESQ Review Number: N/A

Accept recommendation. Apply addition 4% (\$40K) to first \$1.0M of single general construction contractor (GCC).

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 1

ROM Cost Impact:

Construction

Package Number:

Accept WHC disposition, UE&C will revise the KEH G&A rate to 7% of the first million to 3% thereafter.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #: 5.0
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 300
Comment Category: 1
Sheet #:

COMMENT

TABLE 5-3 PROJECT SUMMARY BY UE&C CODE OF ACCOUNTS
WBS 210000 CONTRACT MANAGEMENT & ADMIN
The 8.1% applied for Project Management is not correct.

JUSTIFICATION

KEH Estimating Factors.

RECOMMENDATION

Refer to KEH Estimating Factors FY 1993 which has been supplied to WHC and UE&C.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature: *Chadwick*

Assigned Category: 4
Comment Status:
ESQ Review Number: N/A

Construction Manager determined that 8.1% is adequate at this stage of the project for construction management and administration. Detailed CM&A estimate will be prepared and evaluated as part of CM plan during Title I design.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 5/4

ROM Cost Impact:
Package Number:

Construction

WHC/KEH to re-evaluate C/M costs during title design and advise UE&C if different rate should be applied.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 2
 Section Paragraph #: 5.0
 Drawing #:
 Zone Location:

Reviewer Identification: CHADWICK
 Rev Comment #: 301
 Comment Category: 1
 Sheet #:

COMMENT

TABLE 5-4

The 24% Contingency applied to Title I & II appears high for a project at this stage, since the A-E has planned the work.

JUSTIFICATION

DOE RL 5700.3.

RECOMMENDATION

Suggest separating out Title I which should be well defined and reducing the contingency to 15% or lower.

WHC DISPOSITION

Assigned WHC Cog: SWITA

Date Assigned: February 8, 1994

Reviewer Signature: [Signature]

Assigned Category: 2

Comment Status:

ESQ Review Number: N/A

UE&C and WHC to re-evaluate contingency based on risk and WRAP-1 experience.
 Revise accordingly.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 4

ROM Cost Impact:

Construction

Package Number:

UE&C recommends leaving contingency as is until Title Design is underway, at which time it should be re-evaluated.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 302
Comment Category: 1
Sheet #:

COMMENT

APPENDIX A & B

There is no need to insert the Stabilization Agreement and Hanford Escalation Study into the estimate.

JUSTIFICATION

These documents should only be referenced and not included in estimate.

RECOMMENDATION

This would save the project reproduction cost.

WHC DISPOSITION

Assigned WHC Cog: SWITA

Date Assigned: February 8, 1994

Reviewer Signature: *Chadwick*

Assigned Category: 3

Comment Status:

ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 3

ROM Cost Impact:

Package Number:

Construction

These documents will not be included in further issues.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 303
Comment Category: 3
Sheet #:

COMMENT

APPENDIX C
6.0 PRICING
Vendor Quote should be included with estimate.

JUSTIFICATION

This would add validity to estimate and make review easier.

RECOMMENDATION

Add Vendor Quotes

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature: *Chadwick*

Assigned Category: 3
Comment Status:
ESQ Review Number: N/A

UE&C will add words to ACDR stating that vendor quotes are available from UE&C upon request. Inclusion in ACDR would result in unnecessary reproduction costs.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 3

ROM Cost Impact:
Package Number:

Construction

Information is available at UE&C, but has been omitted from the reprint due to volume.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 304
Comment Category: 1
Sheet #:

COMMENT

APPENDIX C
9.0 ESCALATION

The estimate basis states that the escalation has been applied based on the 1992 Hanford Escalation Study.

JUSTIFICATION

Should use current approved study.

RECOMMENDATION

The 1993 Escalation Study should have been used. In fact the 1994 Hanford Escalation Study is expected to be issued by the end of February.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature: *L Chadwick*

Assigned Category: 3
Comment Status:
ESQ Review Number: N/A

FY-1993 study is the correct application. FY-1994 study will not be used. UE&C to confirm that the FY-1993 study was used to prepare the estimate.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 3

ROM Cost Impact:
Package Number:

Construction

UE&C will revise words to reference the FY 1993 study (issued February 1993) which was based on 1992 data.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 305
Comment Category: 1
Sheet #:

COMMENT

APPENDIX C

10.0 UE&C SERVICES

The estimate basis states the value for Definitive Design is \$10,340,000 W/O Contingency. This figure also does not include escalation. The escalation and contingency application to the TEC can be found elsewhere, but fee cannot. The UE&C fee is required to be included into the estimate because it is part of the capital cost. Offsite A-E fee is normally included into the hourly liquidation rates.

JUSTIFICATION

DOE 4700 and DOE-RL 5700.3

RECOMMENDATION

Include Fee.

WHC DISPOSITION

Assigned WHC Cog: SWITA

Date Assigned: February 8, 1994

Reviewer Signature: *[Signature]*

Assigned Category: 1

Comment Status:

ESQ Review Number: N/A

Accept recommendation. UE&C to determine what is included in the \$10,340,000 and respond. Revise the ACDR accordingly.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 1

ROM Cost Impact:

Package Number:

Construction

The Engineering Estimate does include fee.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 306
Comment Category: 1
Sheet #:

COMMENT

APPENDIX C

16.1 This is a total project estimate and all costs should be included.

JUSTIFICATION

DOE 4700

RECOMMENDATION

Include all costs.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature: *Li Chadwick*

Assigned Category: 2
Comment Status:
ESQ Review Number: N/A

UE&C will delete 16.1.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 2

ROM Cost Impact:
Package Number:

Construction

UE&C will delete statement.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 307
Comment Category: 3
Sheet #:

COMMENT

APPENDIX C

16.2 These costs are included in WHC Operating Contractor Support.

JUSTIFICATION

Should not be an exclusion.

RECOMMENDATION

Strike Statement.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature: *L Chadwick*

Assigned Category: 3
Comment Status:
ESQ Review Number: N/A

UE&C to clarify wording and move to Section 17.0, assumptions and clarifications.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 3

ROM Cost Impact:
Package Number:

Construction

Statement will be moved to Section 17 Assumptions & Qualifications.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 308
Comment Category: 3
Sheet #:

COMMENT

APPENDIX C

16.9 These costs should be covered by WHC.

JUSTIFICATION

RECOMMENDATION

Review to assure cost is covered.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature: L Chadwick

Assigned Category: 5/3
Comment Status:
ESQ Review Number: N/A

WHC to review. Costs are included under OPC.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 5/3

ROM Cost Impact:
Package Number:

Construction

WHC has verified that these costs are included in the OPC; therefore, the statement will be deleted.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 309
Comment Category: 3
Sheet #:

COMMENT

APPENDIX C

16.14 All fiber cable costs for HLAN & communication within 5' of building boundary should be included.

JUSTIFICATION

DOE 4700.

RECOMMENDATION

Include costs within building boundary.

WHC DISPOSITION

Assigned WHC Cog: SWITA

Date Assigned: February 8, 1994

Reviewer Signature: *Chadwick*

Assigned Category: 3

Comment Status:

ESQ Review Number: N/A

UE&C to clarify wording. Costs for this equipment inside the building are included, per UE&C.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 3

ROM Cost Impact:

Construction

Package Number:

UE&C will revise wording to indicate support of cable to within 5" of building boundary.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 310
Comment Category: 3
Sheet #:

COMMENT

APPENDIX C

17.0 Assumptions and Qualifications

17.1 KEH has not monitored this project as far as what Fixed Price mark-ups to use.

JUSTIFICATION

This is UE&C's requirement.

RECOMMENDATION

Strike statement.

WHC DISPOSITION

Assigned WHC Cog: SWITA

Date Assigned: February 8, 1994

Reviewer Signature: *Chadwick*

Assigned Category: 3

Comment Status:

ESQ Review Number: N/A

UE&C to revise the statement. See other similar comments.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 3

ROM Cost Impact:

Package Number:

Construction

Statement will be deleted.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 311
Comment Category: 3
Sheet #:

COMMENT

APPENDIX C

17.2 All indirect cost increases are the responsibility of the project.

JUSTIFICATION

RECOMMENDATION

Strike statement.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature: Chadwick

Assigned Category: 3
Comment Status:
ESQ Review Number: N/A

UE&C to revise the statement. See other similar comments.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 3

ROM Cost Impact:
Package Number:

Construction

Statement will be deleted.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 312
Comment Category: 1
Sheet #:

COMMENT

APPENDIX C

17.6 KEH is not aware of any estimate for Contract Administration having been provided to WHC or UE&C for this project.

JUSTIFICATION

RECOMMENDATION

Use KEH Estimating Factors.

WHC DISPOSITION

Assigned WHC Cog: SWITA

Date Assigned: February 8, 1994

Reviewer Signature: *Chadwick*

Assigned Category: 3

Comment Status:

ESQ Review Number: N/A

Revise words to read "Costs for CM&A were included (as a %) as provided by KEH Construction Manager based on WRAP-1 experience. Also see comment #300.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 3

ROM Cost Impact:

Construction

Package Number:

UE&C will adopt the suggested wording revision.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 313
Comment Category: 1
Sheet #:

COMMENT

APPENDIX C

17.25 All environmental costs should be accounted for by the project.

JUSTIFICATION

DOE 4700.

RECOMMENDATION

Review costs and strike statement.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature: *Chadwick*

Assigned Category: 1
Comment Status:
ESQ Review Number: N/A

Accept recommendation. UE&C to confirm that they will strike statement.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 1

ROM Cost Impact:
Package Number:

Construction

UE&C will delete statement. WHC has verified that these costs are accounted for elsewhere.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 314
Comment Category: 3
Sheet #:

COMMENT

APPENDIX C ESTIMATE DETAIL - The following UE&C rates appear high compared to rates experienced at Hanford.

Concrete: Formwork/Footing	UE&C = .18 MH/SF	KEH .08 MH/SF
Finegrade/Footing	UE&C = .036 MH/SF	KEH .01 MH/SF
Formwork/Wall	UE&C = .18 MH/SF	KEH .02 MH/SF

JUSTIFICATION

RECOMMENDATION

Review rates.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature: *A Chadwick*

Assigned Category: 3/4
Comment Status:
ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 4

ROM Cost Impact:
Package Number:

Construction

Rates will be re-evaluated during the Title I estimate update.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 315
Comment Category: 3
Sheet #:

COMMENT

ESTIMATE DETAIL (Continued)

PIPING: 8"	PIPE/HANDLING	UE&C = .47 MH/LF	KEH .43 MH/LF
6"	PIPE/HANDLING	UE&C = .41 MH/LF	KEH .32 MH/LF
4"	PIPE/HANDLING	UE&C = .34 MH/LF	KEH .21 MH/LF
2"	PIPE/HANDLING	UE&C = .28 MH/LF	KEH .11 MH/LF
1.5"	PIPE/HANDLING	UE&C = .25 MH/LF	KEH .11 MH/LF
1"	PIPE/HANDLING	UE&C = .21 MH/LF	KEH .08 MH/LF

JUSTIFICATION
RECOMMENDATION

Review rates.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature: A Chadwick

Assigned Category: 3/4
Comment Status:
ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 4

ROM Cost Impact:
Package Number:

Construction

Rates include erection and tack welding only--not field welds. Rates will be re-evaluated during Title I estimate update.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 316
Comment Category: 3
Sheet #:

COMMENT

APPENDIX C - MECH EQUIPMENT:

SILO: In one area the estimate has 120MH to set and another are 16. Both appear to be the same size judging by the weight.

JUSTIFICATION

RECOMMENDATION

Review rates.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature: *G Chadwick*

Assigned Category: 3
Comment Status:
ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 3

ROM Cost Impact:
Package Number:

Construction

The Waste Encapsulation Silo (120 MH) is part of a system inside the building (and difficult to get at). The silicone grout silos are part of a system outside the building (much easier to get to - and are also part of a set of 4 silos set at the same time).

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #:
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 317
Comment Category: 3
Sheet #:

COMMENT

APPENDIX C - MECH EQUIPMENT:
SOLENOID VALVES: 16MH'S/EA. SEEMS HIGH, WOULD EXPECT 2 TO 4MH'S/EA. DEPENDING
ON SIZE.

JUSTIFICATION

RECOMMENDATION

Review rates.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 8, 1994
Reviewer Signature: *Chadwick*

Assigned Category: 3/4
Comment Status:
ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 3/4

ROM Cost Impact:
Package Number:

Construction

Rates reflect the difficulty of access to installation location on erected
equipment.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 318
Comment Category: 3
Sheet #:

COMMENT

APPENDIX C - PORTABLE BREATHING AIR:
Assuming that these are on carts, 16 mh's each is very high.

JUSTIFICATION

RECOMMENDATION

Review rates.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature: *Chadwick*

Assigned Category: 3
Comment Status:
ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 3

ROM Cost Impact:
Package Number:

Construction

The carts not 100% mobile - but have a station base tied into airlines.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 2
 Section Paragraph #:
 Drawing #:
 Zone Location:

Reviewer Identification: CHADWICK
 Rev Comment #: 319
 Comment Category: 1
 Sheet #:

COMMENT

APPENDIX C - Mech equip commissioning, startup and checkout: The 4,000 mh's in the estimate is 43% of the equipment installation cost. This is extremely high for ATP and checkout.

JUSTIFICATION

WHC should have start-up costs included in the OPC costs.

RECOMMENDATION

Review and justify.

WHC DISPOSITION

Assigned WHC Cog: SWITA
 Date Assigned: February 8, 1994
 Reviewer Signature: *A Chadwick*

Assigned Category: 5/4
 Comment Status:
 ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 4

ROM Cost Impact:
 Package Number:

Construction

UE&C has assumed (in accordance with WRAP I construction philosophy) that the Contractor is responsible for delivering a working system. WHC to decide if the described product from the contractor is a working system. Will be re-evaluated during the Title I estimate update.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 320
Comment Category: 3
Sheet #:

COMMENT

APPENDIX C - HVAC: The installation for the Air Handling Units are high if they are package units as stated in estimate basis.

Admin Area	UE&C = 286 MH's	KEH = 40 MH's
Control Rm	UE&C = 55 MH's	KEH = 12 MH's
Ship/Rec	UE&C = 248 MH's	KEH = 32 MH's
Process	UE&C = 290 MH's	KEH = 40 MH's
Equip Rm	UE&C = 241 MH's	KEH = 48 MH's
Change Rm	UE&C = 88 MH's	KEH = 40 MH's

JUSTIFICATION

RECOMMENDATION

Review rates.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature: *Chadwick*

Assigned Category: 3/4
Comment Status:
ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 4

ROM Cost Impact:
Package Number:

Construction

The UE&C design engineers intend to specify these units delivered in multiple pieces that will be field assembled & internally connected by power & utility lines. (More is involved than equipment set). Will be re-evaluated during Title I estimate update.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 321
Comment Category: 3
Sheet #:

COMMENT

APPENDIX C - HVAC (Continued) The installation for the Air Clean Up Trains are high if they are package units as stated in estimate basis.

PROCESS ZN II	UE&C = 1370 MH'S	KEH = 200 MH'S
EXH ZN I FAN	UE&C = 165 MH'S	KEH = 48 MH'S
ZN I EXH, 2 STGE	UE&C = 320 MH'S	KEH = 48 MH'S
ZN I EXH, 2 STGE	UE&C = 200 MH'S	KEH = 40 MH'S

JUSTIFICATION

RECOMMENDATION

Review rates.

WHC DISPOSITION

Assigned WHC Cog: SWITA

Date Assigned: February 8, 1994

Reviewer Signature: Chadwick

Assigned Category: 3/4

Comment Status:

ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 4

ROM Cost Impact:

Construction

Package Number:

UE&C engineers envision multiple pre-assembled packages for each train. Large fans will require assembly of major components. Will be re-evaluated during Title I estimate update.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 322
Comment Category: 3
Sheet #:

COMMENT

APPENDIX C - HVAC
Zone I Enclosures, ETC: UE&C has applied an allowance of 2,200 mhr. This should be justified

JUSTIFICATION

RECOMMENDATION

Review rates.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature: [Signature]

Assigned Category: 3
Comment Status:
ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 4

ROM Cost Impact:
Package Number:

Construction

Zone I enclosures include multiple pieces such as filters, manifolds, valves etc. that will need to be field assembled. The allowance is consistent with UE&C experience for large complex HVAC systems. Will be re-evaluated during Title I estimate update.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 2
 Section Paragraph #:
 Drawing #:
 Zone Location:

Reviewer Identification: CHADWICK
 Rev Comment #: 323
 Comment Category: 3
 Sheet #:

COMMENT

APPENDIX C - HVAC (Continued) CHILLED WATER SYSTEM:
 Water Chillers UE&C = 516 MH'S KEH = 68 MH'S
 Cooling Tower UE&C = 165 MH'S KEH = 80 MH'S

JUSTIFICATION

RECOMMENDATION

Review rates.

WHC DISPOSITION

Assigned WHC Cog: SWITA
 Date Assigned: February 8, 1994
 Reviewer Signature: *E Chadwick*

Assigned Category: 3/4
 Comment Status:
 ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 4

ROM Cost Impact:
 Package Number:

Construction

There is minor sub-assembly required beyond just setting a box for cooling towers & chillers. These units are consistent with UE&C job experience. Will be re-evaluated during Title I estimate update.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 2
 Section Paragraph #:
 Drawing #:
 Zone Location:

Reviewer Identification: CHADWICK
 Rev Comment #: 324
 Comment Category: 3
 Sheet #:

COMMENT

APPENDIX C - HVAC (Continued)

The rates for SST Duct is enough to cover leak testing, therefore the 500 hours applied for testing should be deleted.

JUSTIFICATION

RECOMMENDATION

Review rates.

WHC DISPOSITION

Assigned WHC Cog: SWITA

Date Assigned: February 8, 1994

Reviewer Signature: *Chadwick*

Assigned Category: 3

Comment Status:

ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 4

ROM Cost Impact:

Construction

Package Number:

If someone else (other than the Contractor) will be responsible for leak testing (and any repairs) then this could be deleted. UE&C feels this allowance is required for Contractor delivery of a working system. Recommend leaving as is. Will be re-evaluated during Title I estimate update.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 2
 Section Paragraph #:
 Drawing #:
 Zone Location:

Reviewer Identification: CHADWICK
 Rev Comment #: 325
 Comment Category: 1
 Sheet #:

COMMENT

APPENDIX C - HVAC (Continued)
 Ductwork balancing; the operating contractor already has cost for balancing in their operating contractor support WBS.

JUSTIFICATION

See estimate basis.

RECOMMENDATION

Delete cost in one area of Estimate and review rates.

WHC DISPOSITION

Assigned WHC Cog: SWITA
 Date Assigned: February 8, 1994
 Reviewer Signature: *L. Chadwick*

Assigned Category: 5
 Comment Status:
 ESQ Review Number: N/A

UE&C has specific specification section for construction contractor to balance. Effort may require a joint WHC and contractor team. Recommend that contractor \$ be left in estimate for now. WHC will evaluate.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 5

ROM Cost Impact:
 Package Number:

Construction

Accept WHC disposition.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 2
Section Paragraph #:
Drawing #:
Zone Location:

Reviewer Identification: CHADWICK
Rev Comment #: 326
Comment Category: 1
Sheet #:

COMMENT

APPENDIX C - HVAC (Continued): HVAC equipment commissioning, start-up & checkout: 1,200 hours should be justified, since WHC will perform start-up.

JUSTIFICATION

DOE 4700.

RECOMMENDATION

Review rates.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 8, 1994
Reviewer Signature: *H Chadwick*

Assigned Category: 4
Comment Status:
ESQ Review Number: N/A

HVAC system not adequately designed at this stage to address comment. Will be reviewed and closed in Title I design.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 4

ROM Cost Impact:
Package Number:

Construction

Again, UE&C assumed Contractor to provide a working system. Recommend leaving as is. Will be re-evaluated during Title I estimate update.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: 2
 Section Paragraph #:
 Drawing #:
 Zone Location:

Reviewer Identification: CHADWICK
 Rev Comment #: 327
 Comment Category: 3
 Sheet #:

COMMENT

APPENDIX C - Electrical: In general electrical appear approximately 20% high.

JUSTIFICATION

RECOMMENDATION

Review rates.

WHC DISPOSITION

Assigned WHC Cog: <u>SWITA</u>	Assigned Category: <u>3</u>
Date Assigned: February 8, 1994	Comment Status:
Reviewer Signature: <u>[Signature]</u>	ESQ Review Number: <u>N/A</u>

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon	Final Category: <u>3</u>
------------------------------	--------------------------

ROM Cost Impact:	Construction
Package Number:	

No change, electrical rates are in line with UE&C construction job experience on complex projects such as this one.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IIIA, PFHA
Section Paragraph #: Table 2
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 328
Comment Category: 1
Sheet #:

COMMENT

Note 1 indicates that "it is assumed that cadmium, manganese, and zirconium are not present, based on WHC-SD-W100-FDC-001." If there is a conflict between the FDC and the source term documents, the means of complying with the FDC should be determined, or the FDC revised to reflect the actual feed streams.

JUSTIFICATION

WHC-SD-W306-TI-001.

RECOMMENDATION

Recommend deleting the assumption made or provide the rationale for not considering these materials as provided by the approved source term document.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 17, 1994

Assigned Category: 5
Comment Status: 0

WHC to revise source term documents per operations directions. Comment to be addressed in WHC meeting with Solid Waste Project Integration, Restoration Projects, Fire Protection and RCRA Unit Permits.

Reviewer Signature: C. B. Evans ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 5

ROM Cost Impact:

Construction Package Number:

WHC action. No change to ACDR.

(Comment shall be resolved during Title I design).

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IIIA, PFHA
Section Paragraph #: 4.3
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 329
Comment Category: 1
Sheet #:

COMMENT

Item 3, NFPA 231C does not apply to the cure storage area if the drawing H-2-140631, Sheet 6 is accurate. This shows that there will be only single-level storage (55 container positions) of the containers. NFPA 231C applies only to rack storage over 12 feet in height.

JUSTIFICATION

NFPA 231C.

RECOMMENDATION

Recommend that H-2-140631, Sheet 6 be reviewed and NFPA 231C be re-assessed for applicability.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 1
Comment Status: 0

See WHC Recommendation.

Reviewer Signature: C.B. Evans ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Deleted NFPA 231C reference and added NFPA 231.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IIIA, PFHA
Section Paragraph #: 4.3
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 330
Comment Category: 1
Sheet #:

COMMENT

Item 5 states that the MPFL should be less than \$150M based on the WRAP 1 MPFL. The WRAP 1 source term material is substantially different, which makes using the WRAP 1 MPFL as a basis very questionable. There is no TRU waste in WRAP 2A (of significant quantity) and this may reduce the facility cleanup estimate, but mixed waste constituents have handling costs associated with them as well, and the environmental cleanup estimate may be much greater for WRAP 2A because the environmental remediation estimate cannot be based on LLW cleanup as was done with WRAP 1.

JUSTIFICATION

WRAP 1 MPFL; WRAP 2A waste constituents.

RECOMMENDATION

Recommend that the comparison to WRAP 1 be deleted or substantially qualified.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 1
Comment Status: 0

See WHC Recommendation.

Reviewer Signature: C. B. Evans

ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Added clarification to text to say that the current assumption is based on engineering judgement, and lower anticipated levels of radioactive and hazardous contamination. The basis for this is the source term documentation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IIIA. PFHA
Section Paragraph #: 4.3
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 331
Comment Category: 1
Sheet #:

COMMENT

Item 8, the Hanford Fire Department does not provide redundant protection though they nmay form part of the redundant protection system. In this case, automatic detection tied to the alarm system would provide the "front end" of the redundant system.

JUSTIFICATION

DOE 5480.7A, see definition of Fire Protection System for description of redundant protection.

RECOMMENDATION

Revise to include a description of the redundant system components.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 1
Comment Status: 0

See WHC Recommendation.

Reviewer Signature: C. B. Evans ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Revised text to describe the redundant system components.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IIIA, PFHA
Section Paragraph #: 4.4
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 332
Comment Category: 1
Sheet #:

COMMENT

Ignitable materials have a flash point of <140 F per WAC-173-303. Therefore, Section 79 of the UFC would also be applicable to WRAP 2A for combustible and flammable liquids (e.g., acetone) per 80.304. There are exempt quantities identified for these materials (contrary to Table 3).

JUSTIFICATION

UFC 80.304 refers to Article 79 for storage of flammable or combustible liquids.

RECOMMENDATION

Include 80.304 as part of the "Good Practices" discussion.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 5
Comment Status: 0

WHC to revise source term documents per operations directions. Comment to be addressed in WHC meeting with Solid Waste Project Integration, Restoration Projects, Fire Protection and RCRA Unit Permits.

Reviewer Signature: C. B. Evans ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 5

ROM Cost Impact:

Construction Package Number:

WHC action. No change to ACDR.

(Comment shall be resolved during Title I design).

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IIIA, PFHA
Section Paragraph #: 4.5
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 333
Comment Category: 1
Sheet #:

COMMENT

The roof and wall panels may have combustible insulation as they do in WRAP 1. If so the vulnerability of the wall or roof panels (over and above their FM testing) will have to be assessed in the fire hazards analysis.

JUSTIFICATION

Versawall™ Panel Specifications indicate urethane modified isocyanurate foam insulation used for wall and roof panels.

RECOMMENDATION

Include the wall and roof panel insulation as a potential combustible which could become involved in a fire.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 1
Comment Status: 0

Add note to the ACDR, section 4.5, similar to the following:

"The potential for the foam insulation in the wall/roof panels to add to the combustible loading for any fire will be addressed in the Title I FHA."

Reviewer Signature: C. B. Evans

ESQ Review Number: FPP-93-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IIIA, PFHA
Section Paragraph #: 4.6
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 334
Comment Category: 1
Sheet #:

COMMENT

Item 1 assumption of no UBC classification is at risk, based on available documentation per previous comments.

JUSTIFICATION

WHC-SD-W306-TI-001 and WRAP 2A SDRD.

RECOMMENDATION

Recommend that this be identified as an issue to be resolved, and plan on the UFC/UBC classification until it is resolved.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 5
Comment Status: 0

WHC to revise source term documents per operations directions. Comment to be addressed in WHC meeting with Solid Waste Project Integration, Restoration Projects, Fire Protection and RCRA Unit Permits.

Reviewer Signature: A. B. Evans ESQ Review Number: FPP-93-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 5

ROM Cost Impact:

Construction Package Number:

WHC action. No change to ACDR.

(Comment shall be resolved during Title I design).

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: IIIA, PFHA
 Section Paragraph #: 4.8
 Drawing #:
 Zone Location:

Reviewer Identification: EVANS
 Rev Comment #: 335
 Comment Category: 1
 Sheet #:

COMMENT

Item 1.c indicates that an analysis may be required to justify construction features of the ducting. Not clear on the intent of this analysis; duct protection is required when fire dampers cannot be used. As stated in previous comments, the justification in question is to show why fire dampers should not be required since the ducting is not required to operate continuously during a DBE or DBF.

JUSTIFICATION

DOE 6430.1A, 1530-99.0.

RECOMMENDATION

Incorporate fire dampers in exhaust ducting. If adequate justification per DOE 6430.1A, Section 1530-99.0, is provided to waive this requirement, the ducting must be protected to 1-1/2 hours with a fire rated barrier.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
 Date Assigned: February 8, 1994

Assigned Category: 5
 Comment Status: 0

Solid Waste Project Integration to provide Fire Protection with complete description of HVAC Passive Shutdown system.

Reviewer Signature: C. B. Evans ESQ Review Number: FPP-93-138

Final Disposition

A-E Lead Engineer: Tagge.

Final Category: 5

ROM Cost Impact:

Construction Package Number:

WHC action. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IIIA, PFHA
Section Paragraph #: 4.8
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 336
Comment Category: 1
Sheet #:

COMMENT

Item 4.c indicates that the deviation from the 0111-99.0.1 criteria will "determine the final approach used by RE&C on this building construction issue." This is inappropriate, since the fire hazards analysis is the basis for demonstrating those fire protection criteria of DOE 6430.1A from which a deviation is justified.

JUSTIFICATION

Deviation is project-specific.

RECOMMENDATION

Revise this section to indicate that the WRAP 1 deviation request is relevant only if the FHA demonstrates the basis for a deviation and it is still not approved.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 1
Comment Status: 0

Delete from "RE&C has submitted..." to section 4.9. Add prose similar to "If substantiated by appropriate justification, RE&C may submit a deviation request as early in the process as possible.

Reviewer Signature: C. B. Evans ESQ Review Number: FPP-93-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: IIIA, PFHA
 Section Paragraph #: 4.9
 Drawing #:
 Zone Location:

Reviewer Identification: EVANS
 Rev Comment #: 337
 Comment Category: 1
 Sheet #:

COMMENT

The FHA will have to assess the transfer corridor as an avenue impacting fire separation between facilities. The size of the corridor has been increased, providing a greater potential for fire spread between fire areas.

JUSTIFICATION

EH-31.3 guidance on FHAs (11/7/91), identifies fire spread between fire areas as a consideration in the FHA.

RECOMMENDATION

Identify as an item to be considered in the FHA.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
 Date Assigned: February 8, 1994

Assigned Category: 1
 Comment Status: Closed

WRAP 2A is located 420 feet west of WRAP 1 which exceeds the minimum requirements for area separation by NFPA 80A. WRAP 2A is being designed as a "stand-alone" facility which may or may not be connected with project W-112 (i.e. transfer corridor). As the transfer corridor is a part of Project W-112, area separation will be addressed in the W-112 Fire Hazards Analysis.

Reviewer Signature: C. B. Evans ESQ Review Number: FPP-93-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: N/A

ROM Cost Impact:

Construction Package Number:

This is a closed comment. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: IIIA, PFHA
 Section Paragraph #: 4.10
 Drawing #:
 Zone Location:

Reviewer Identification: EVANS
 Rev Comment #: 338
 Comment Category: 1
 Sheet #:

COMMENT

Item 2 indicates "that a DBF based on processed waste drums as the primary fuel is not valid. The contents of the drums, however, do need to be considered as potential fuel for a maximum possible (or credible) fire." One fire event per fire area is considered as the basis for the FHA. Unless some analytical methods are employed, all of the combustible materials in the fire area will be included in the DBF/MPFL.

JUSTIFICATION

WRAP 1 Technical Exchange of 5/7/92 documented agreement by WHC, UE&C, and RL as to the approach used for the FHA. This assumes that the total fuel loading in a fire area "includes all sources which are not 'rated' by a nationally recognized laboratory."

RECOMMENDATION

Revise to implement the FHA approach agreed to in 1992.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
 Date Assigned: February 8, 1994

Assigned Category: 1
 Comment Status: 0

RE&C to address issue in the Fire Hazards Analysis. As all fire analyses are Project Specific, the WRAP 1 Technical exchange of 5/7/92 is not applicable to WRAP 2A. Additionally, RE&C to change the wording to read prose similar to "...that a DBF will not originate in the processed waste box area. The contents of the process waste boxes may, however, require consideration as a potential fuel for the DBF, MCFL and/or MPFL."

Reviewer Signature: C.B. Evans ESQ Review Number: FPP-93-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC disposition.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #:
Drawing #: H-2-140599
Zone Location: C/D/E-7

Reviewer Identification: EVANS
Rev Comment #: 339
Comment Category: 1
Sheet #: 1

COMMENT

Placement of silos adjacent to the building make them an exposure hazard.
Will need to address in the FHA.

JUSTIFICATION

NFPA 80A.

RECOMMENDATION

Note in the preliminary fire hazards assessment that this shall be addressed
in the FHA.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 4
Comment Status: 0

Area separation with specific respect to the silos shall be addressed in the
Fire Hazards Analysis in accordance with NFPA 80A.

Reviewer Signature: C. B. Evans ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #:
Drawing #: H-2-140713, 714, 716, 717
Zone Location: All

Reviewer Identification: EVANS
Rev Comment #: 340
Comment Category: 1
Sheet #: 1

COMMENT

Indicate the structural members that will be protected in order to attain fire rated separations for the process HVAC, the administration areas, and others shown.

JUSTIFICATION

Vol I: 3.3.3.3, Item 6 and 4.2 Item 8. Definition of a fire area in DOE 5480.7A.

RECOMMENDATION

Provide information on the drawings indicated.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 4
Comment Status: 0

Agree. However, the level of design (ACDR) is not the appropriate design vehicle to review for specific details as such. These details will be available for review during Title I.

Reviewer Signature: C. B. Evans ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

**WRAP 2A ACDR Review
Design Review Comment Submittal**

Document Title: WRAP 2A ACDR Volume I
Volume #: 1
Section Paragraph #: 2.1
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 341
Comment Category: 1
Sheet #:

COMMENT

Item 13, statement is made that the facility design criteria per SDC 4.1 is appropriate for a low hazard facility. Please verify that the facility hazard classification per WHC-CM-4-46 is not used synonymously with the Facility Use Category of SDC 4.1 and UCRL-15910. These are not the same. Item should be revised to reflect the distinction. See also 6.3.3.3, 1.d. third bullet where this confusion is also evident.

JUSTIFICATION

SDC-4.1 or UCRL-15910; WHC-CM-4-46, Section 4.0.

RECOMMENDATION

Recommend that item is revised to state "...Standard Design Criteria SDC 4.1 as appropriate for a Low Hazard Category facility." Recommend that 6.3.3.3, 1.d. third bullet strike the words "...as prescribed in WHC 4.1 [sic] for a 'low hazard' classification Radioactive Solid Waste facility."

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 1
Comment Status: 0

Replace "low hazard" with "low hazard use category" in any sentence where "low Hazard is used in conjunction with SDC 4.1.

Reviewer Signature: C.B. Evans ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Revised text per WHC recommendation.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 2.4
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 342
Comment Category: 1
Sheet #:

COMMENT

Change of UBC building occupancy classification is not in accordance with the Supplemental Design Requirements Document which identifies facility as a H-3/H-7 occupancy.

JUSTIFICATION

WHC-SD-W100-SDRD-001, Section 4.2.3.c states that "this facility is classified in accordance with the Uniform Building Code as Group H, Division 3 and Division 7." Also, current documentation does not support exempting the UFC criteria.

RECOMMENDATION

Appropriate building classification should be revised to indicate H-3/H-7 in accordance with the UBC.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 5
Comment Status: 0

The Supplemental Design Requirements document will be revised deleting this requirement as it currently has no technical basis.

Reviewer Signature: *A. B. Evans* ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 5

ROM Cost Impact:

Construction Package Number:

WHC action. No change to ACDR.

(Comment shall be resolved during Title I design).

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 3.3.3.2
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 343
Comment Category: 1
Sheet #:

COMMENT

Item 1 indicates one definition of hazardous material for the purpose of identifying exempt amounts of ignitive or reactive materials. Either the reactive and ignitive waste should be identified apart from being hazardous by this particular definition, or the definition should be correlated with the WAC definition of dangerous waste.

JUSTIFICATION

The State of Washington imposes WAC-173-303 which in turn imposes the Uniform Fire Code for ignitive and reactive wastes. It is not assured that the State law is met without using the State's own criteria for applicable waste.

RECOMMENDATION

Identify all ignitive and reactive materials which meet the criteria of the WDOE for imposition of WAC-173-303.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 1
Comment Status: 0

WHC to revise source term documents per operations directions. Comment to be addressed in WHC meeting with Solid Waste Project Integration, Restoration Projects, Fire Protection and RCRA Unit Permits. RE&C to revise ACDR to specifically address ignitable and reactive wastes as defined and required by the WAC 173-303-630, and subsequently Article 80 of the UFC.

Reviewer Signature: C. B. Evans

ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Tagge.

Final Category: 1/5

ROM Cost Impact:

Construction Package Number:

Agree. The term "hazardous material", both in Volume I (section 3.3.3.2.1) and in Volume III, the PFHA, changed to "ignitable and reactive materials". Also clarified that the definition of "ignitable and reactive" will be in accordance with WAC-173-303; the actual revision of tables etc. to reflect this refinement of definition will take place early in Title I design, after WHC provides clarification of which waste stream components (feed stream spec.) classification of streams as ignitable or reactive.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 3.3.3.3
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 344
Comment Category: 1
Sheet #:

COMMENT

Conclusion Item 1 is not supported by the existing documentation. Furthermore, the intent of WAC-173-303 to impose state requirements on ignitive and reactive waste is not met, nor is the current State permit according to Brett Barnes, the WRAP permitting officer.

JUSTIFICATION

WHC-SD-W306-TI-001, source term document identifies waste materials which exceed the exempt amounts of the Uniform Fire Code. The State permit invokes the Uniform Fire Code.

RECOMMENDATION

Impose provisions of the UFC for ignitable/reactive wastes.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 5
Comment Status: 0

WHC to revise source term documents per operations directions. Comment to be addressed in WHC meeting with Solid Waste Project Integration, Restoration Projects, Fire Protection and RCRA Unit Permits.

Reviewer Signature: C. B. Evans ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 5

ROM Cost Impact:

Construction Package Number:

WHC action. No change to ACDR.

(Comment shall be resolved during Title I design).

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 3.3.3.3
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 345
Comment Category: 1
Sheet #:

COMMENT

Conclusion Items 2-5 must be substantiated by the Fire Hazards Analysis and not taken as assumptions.

JUSTIFICATION

The function of the FHA is to assess the risk from fire to the facility.

RECOMMENDATION

Do not take the conclusions of the Fire Hazard Assessment as input assumptions of the Fire Hazards Analysis.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 1
Comment Status: 0

Note in item #9 that the Preliminary Fire Hazards Assesment is a tool to help focus the Title I Fire Hazards Analysis on the possible facility issues (conclusions noted in items 1-8) and that final conclusions shall be drawn and substantiated in the Title I Fire Hazards Analysis.

Reviewer Signature: C. B. Evans ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Tagge.

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Revised item 9 to read: The PFHA is a tool to help focus the Title I fire hazards analysis on the possible facility issues. Final conclusions including final occupancy classifications and building construction types will be established and substantiated in the Title I Fire Hazard Analysis.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 3.3.3.3
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 346
Comment Category: 1
Sheet #:

COMMENT

Conclusions Item 6; Type II-000 building construction does not meet DOE 6430.1A fire resistance requirements for a nuclear facility.

JUSTIFICATION

DOE 6430.1A, Section 0111-99.0 and Section 1530-99.0.

RECOMMENDATION

Provide fire resistive building construction which is commensurate with the combustible loading of the facility as required by DOE 6430.1A.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 4
Comment Status: 0

Building construction type will be finalized and substantiated during Title I design.

Reviewer Signature: C. B. Evans ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Tagge.

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

**WRAP 2A ACDR Review
Design Review Comment Submittal**

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 3.3.3.3
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 347
Comment Category: 1
Sheet #:

COMMENT

Conclusions Item 7 indicates that fire dampers will not be used for duct penetrations of fire walls. Fire dampers are required by DOE 6430.1A, Section 1530-99.0 unless "the loss of confinement might pose a greater threat than the spread of fire." This has not been stated or substantiated. Comment also applies to 6.3.3.4, Item 1.f. Other parts of the ACDR indicate that the confinement function is not required to be maintained during the DBE and DBF, which would support the incorporation of fire dampers to the design.

JUSTIFICATION

DOE 6430.1A, Section 1530-99.0.

RECOMMENDATION

Provide substantiation for loss of confinement presenting a greater threat than the spread of fire as stated in DOE 6430.1A, or provide fire dampers in ducting penetrating fire walls as otherwise required.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 1
Comment Status: 0

Provide substantiation for loss of confinement presenting a greater threat than the spread of fire as stated in DOE 6430.1A.

Reviewer Signature: C.B. Evans

ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Tagge.

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Revised item 7 to read: Additional study and assessment, possibly including limited fire modeling, will be required during Title design to determine if the loss of confinement poses a greater threat than the spread of fire, and the adequacy of HVAC duct penetrations through fire walls, if fire dampers are not provided. Also revised section 6.3.3.4.1.f accordingly.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 4.2
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 348
Comment Category: 1
Sheet #:

COMMENT

Item 5 indicates that the facility has a confinement function. The secondary confinement system (building shell and secondary ventilation system) is not designed with a fire rating, and so will not withstand design basis accidents which involve a severe fire.

JUSTIFICATION

DOE 6430.1A, Section 1530-99.0.

RECOMMENDATION

Provide a confinement system which is designed in accordance with DOE 6430.1A.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 4
Comment Status: 0

Facility is currently designed to withstand DBA's, including severe fires in accordance with graded approach associated with the hazard classification/ Safety Class designation and limitations provided in DOE Order 6430.1A, Section 1300-1.4.2. RE&C to fully address and substantiate this position, with WHC assistance, in the FHA. If the FHA can not substantiate this position, then the FHA will be required to recommend the appropriate design changes.

Reviewer Signature: C.B. Evans

ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 4.2
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 349
Comment Category: 1
Sheet #:

COMMENT

Item 8 indicates that there will be a 2-hour separation between the process and administrative areas. Paragraph 3.3.3.3 identifies a 2-hour separation of the process HVAC from the rest of the facility. Please indicate whether these are true separations or if they are supported by unprotected structural steel.

JUSTIFICATION

These separations do not constitute fire rated separations if their structural members are not equivalently protected.

RECOMMENDATION

All fire-rated separations must be structurally protected or they will not provide a barrier to fire.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 4
Comment Status: 0

Agree. However, the level of design (ACDR) is not the appropriate design vehicle to review for specific details as such. These details will be available for review during Title I.

Reviewer Signature: C.B. Evans ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 6.1.2
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 350
Comment Category: 1
Sheet #:

COMMENT

Item 1 indicates that WRAP 2A will be immediately west of WRAP 1. Please identify whether a fire separation will be established between the two buildings per NFPA 80A, or if a loss-limiting fire wall will be installed.

JUSTIFICATION

DOE 6430.1A, Section 0110-6.4.

RECOMMENDATION

Establish adequate separation between WRAP 2A and WRAP 1 to preclude a hard fire barrier requirement.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 3
Comment Status: 0

WRAP 2A is located 420 feet west from WRAP 1, beyond the minimum distance required by NFPA 80A. RE&C is directed to delete the word "immediately".

Reviewer Signature: C.B. Evans ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Agree. Deleted the word "immediately".

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 6.2.3.1
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 351
Comment Category: 1
Sheet #:

COMMENT

Item 2, last sentence is misstated. The hazard classification of the facility does not determine the design of the confinement system. The secondary confinement system (except for the final filters) is not currently designed to withstand fire, independent of whether it is supposed to mitigate releases to the site boundary.

JUSTIFICATION

WHC-CM-4-46, Section 4, paragraph 3.0, purpose of hazard classification.

RECOMMENDATION

Strike the last sentence of item 2.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 1
Comment Status: 0

See WHC Recommendation.

Reviewer Signature: C.B. Evans

ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Deleted sentence as suggested.

350

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 6.2.3.1
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 352
Comment Category: 1
Sheet #:

COMMENT

Item 8, the hazard classification of the facility is not the appropriate basis for design decisions. The metal building system design is at risk because there is currently no basis for this type of construction.

JUSTIFICATION

WHC-CM-4-46; DOE 6430.1A.

RECOMMENDATION

Document an appropriate basis for the current structural and secondary confinement design or provide the proper design requirements applicable to a nuclear facility.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 4
Comment Status: 0

Building construction type will be finalized and substantiated during Title I design.

Reviewer Signature: C. B. Evans ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 6.3.2
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 353
Comment Category: 1
Sheet #:

COMMENT

Item 3 states that office and administrative area sprinkler systems shall be designed to meet NFPA Ordinary Hazard Group 1 occupancy. This is probably sufficient for this area (given that it is separated from the process areas by 2-hour fire-rated construction), but the SDRD document states that the fire sprinkler density shall conform to NFPA 13 Group 2 minimum.

JUSTIFICATION

WHC-SD-W100-SDRD-001.

RECOMMENDATION

Revise the ACDR to Group 2 or revise the SDRD.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 5
Comment Status: 0

WHC to revise the SDRD based on specific recommendation by WHC Fire Protection.

Reviewer Signature: C.B. Evans

ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 5

ROM Cost Impact:

Construction Package Number:

WHC action. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 6.3.3.3
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 354
Comment Category: 1
Sheet #:

COMMENT

1.c indicates that the confinement system maintains "containment" during postulated design basis accidents and states that this is a low hazard facility. Statement is erroneous as the confinement system is designed to go static during a DBE or DBF. Irrelevant this is a low hazard facility.

JUSTIFICATION

Confinement system is not designed to maintain its function following a DBE or DBF.

RECOMMENDATION

Strike last part of sentence "...and maintains containment during postulated design basis accidents." Strike last sentence.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 5
Comment Status: 0

Solid Waste Project Integration and Fire Protection to discuss methodology and design criteria for HVAC systems designed to "passive shut-down" requirements prior to further WHC guidance to RE&C.

Reviewer Signature: C.B. Evans ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Gehret/Tagge

Final Category: 1/5

ROM Cost Impact:

Construction Package Number:

Revised text to clarify.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: 1
Section Paragraph #: 7.3.1
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 355
Comment Category: 1
Sheet #:

COMMENT

Item 3 states that air changes will be kept to a minimum to minimize particulate dispersion. It was previously stated that Zone 1 would require 8 air changes per hour.

JUSTIFICATION

Consistency.

RECOMMENDATION

Clarify whether the 8 air changes per hour is minimizing the number of air changes as indicated.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 1
Comment Status: 0

Change the sentence "Air changes will...to avoid material/ particulate suspension." to something similar to "The design basis of 8 air changes per hour will be utilized to provide adequate ventilation and to minimize material/particulate suspension."

Reviewer Signature: C.B. Evans ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Gehret/Tagge

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Revised item 3 to add: The HVAC design criteria of 8 air changes per hour is used to size fans and ducts, and does not necessarily indicate the operating mode of the system.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IIIA, PFHA
Section Paragraph #: 2.0
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 356
Comment Category: 1
Sheet #:

COMMENT

No substantiation that the reactive waste materials will not exceed the UFC exempt limits. The phrase in 1.d "...based on the understanding that ammonium nitrate and sodium oxide, as specific compounds, will not be allowed in the WRAP 2A facility in sufficient quantity..." is somewhat ambiguous. A discussion with Brett Barnes, the WRAP permitting officer, indicated that the project may be violating the intent of the permit and the WAC in attempting to skirt the Uniform Fire Code requirements for ignitable and reactive waste.

JUSTIFICATION

WHC-SD-W306-TI-001, WAC-173-303-630, State permit for WRAP.

RECOMMENDATION

Recommend meeting with the regulators to verify that the approach being used by the project meets the intent of the WAC, the permit, and can be technically accomplished given the uncertainties of the waste streams and the ambiguity implied by 1.d. by referring to "specific compounds."

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 5
Comment Status: 0

WHC to revise source term documents per operations directions. Comment to be addressed in WHC meeting with Solid Waste Project Integration, Restoration Projects, Fire Protection and RCRA Unit Permits.

Reviewer Signature: C. B. Evans ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 5

ROM Cost Impact:

Construction Package Number:

WHC action. No change to ACDR.

(Comment shall be resolved during Title I design).

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IIIA, PFHA
Section Paragraph #: 3.0
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 357
Comment Category: 1
Sheet #:

COMMENT

Item 1 is not supported by the source term documentation. UFC/UBC will apply unless a substantial change of the waste stream, the addition of the product materials to the waste stream, and the interpretation of the permit and WAC indicate otherwise.

JUSTIFICATION

WHC-SD-W306-TI-001.

RECOMMENDATION

Indicate potential for UFC/UBC code applicability.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 5
Comment Status: 0

WHC to revise source term documents per operations directions. Comment to be addressed in WHC meeting with Solid Waste Project Integration, Restoration Projects, Fire Protection and RCRA Unit Permits.

Reviewer Signature: C. B. Evans ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 5

ROM Cost Impact:

Construction Package Number:

WHC action. No change to ACDR.

(Comment shall be resolved during Title I design).

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IIIA, PFHA
Section Paragraph #: 3.0
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 358
Comment Category: 1
Sheet #:

COMMENT

Item 6 draws a conclusion which supports noncombustible, unrated building construction. This conclusion is not supported by the preliminary assessment of fire hazards or HVAC confinement assessment.

JUSTIFICATION

Section 4.0 of this assessment plus the HVAC confinement assessment indicate that approved deviations from several DOE 6430.1A requirements are necessary before such construction could be considered.

RECOMMENDATION

The project should pursue necessary deviations before planning on a design which does not meet DOE Order requirements.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 4
Comment Status: 0

RE&C shall consider appropriateness of design type in accordance with fire analyses during Title I. If RE&C determines there is justification for requesting a waiver/deviation from DOE Orders, RE&C will put together the necessary documentation to support this action.

Reviewer Signature: C.B. Evans ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 4

ROM Cost Impact:

Construction Package Number:

Agree with WHC disposition. No change to ACDR.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IIIA, PFHA
Section Paragraph #: 4.0
Drawing #:
Zone Location:

Reviewer Identification: EVANS
Rev Comment #: 359
Comment Category: 1
Sheet #:

COMMENT

Item 4 indicates that the entire building is a single fire "zone." Normally, a zone is for fire alarm discrimination, but from the context of this statement, it is taken to mean a fire area. If so, this is incorrect, since there is a callout for the process HVAC and the administration areas to be separated by 2-hour fire-rated construction.

JUSTIFICATION

Vol I: 3.3.3.3, Item 6 and 4.2 Item 8.

RECOMMENDATION

Clarify to indicate the 3 (or more) fire areas if terminology is incorrect.

WHC DISPOSITION

Assigned WHC Cog: HINKLE
Date Assigned: February 8, 1994

Assigned Category: 1
Comment Status: 0

See WHC Recommendation.

Reviewer Signature: C.B. Evans ESQ Review Number: FPP-94-138

Final Disposition

A-E Lead Engineer: Tagge

Final Category: 1

ROM Cost Impact:

Construction Package Number:

Agree. Revised section 4.1.4 to clarify.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: Table 1-1
Drawing #:
Zone Location:

Reviewer Identification: SWITA
Rev Comment #: 360
Comment Category: 1
Sheet #:

COMMENT

The other project cost (OPC) estimate was revised from \$69,065,000 to \$58,000,000.

JUSTIFICATION

This information was provided to UE&C via FAX on 1/6/94.

RECOMMENDATION

Revise the OPC in this table and throughout Volume II to \$58,000,000.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 9, 1994.
Reviewer Signature: W.R. Smith

Assigned Category: 1
Comment Status:
ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 1

ROM Cost Impact:
Package Number:

Construction

UE&C will revise Table per WHC direction.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: <u>WRAP 2A ACDR</u>	Reviewer Identification: <u>SWITA</u>
Volume #: <u>II</u>	Rev Comment #: <u>361</u>
Section Paragraph #: <u>2.2, 2.3, App C, 1.7</u>	Comment Category: <u>2</u>
Drawing #:	Sheet #:
Zone Location:	

COMMENT

Discussion relates to comparison of pre-CDR estimate to preliminary ACDR estimate (of 12/93). Comparison must be between approved and baseline CDR estimate of \$81,068K and 90% ACDR estimate of \$81,068K.

JUSTIFICATION

Pre-CDR and preliminary ACDR estimates are not meaningful from a baseline standpoint. Preliminary ACDR estimate was not formally submitted or reviewed.

RECOMMENDATION

Revise Volume II discussion to compare baseline CDR estimate (100%) to ACDR 90% submittal.

WHC DISPOSITION

Assigned WHC Cog: <u>SWITA</u>	Assigned Category: 2
Date Assigned: February 9, 1994	Comment Status:
Reviewer Signature: <u>W.R. Smith</u>	ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon	Final Category: 2
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ROM Cost Impact:	Construction
Package Number:	

Will revise accordingly.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: Table 2-2, App C
Drawing #:
Zone Location:

Reviewer Identification: SWITA
Rev Comment #: 362
Comment Category: 2
Sheet #:

COMMENT

Inadequate trend detail provided to understand estimate revisions during ACDR (trends 17, 18, 19 and revised CDR cost estimate). Reconciliation prepared by UE&C code of accounts instead of engineering WBS.

JUSTIFICATION

Additional cost estimate reconciliation detail will be required to understand estimate revisions and process project change request to baseline the revised estimate and contingency breakdown.

RECOMMENDATION

Provide "Was"/"Is" matrix by Engineering WBS delineating the significant changes from the baseline CDR estimate to the ACDR 90% estimate. Engineering WBS format is commonly used by WHC and more closely relates to UE&C design to cost discipline leads.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 9, 1994
Reviewer Signature: W.R. Santa

Assigned Category: 2
Comment Status:
ESQ Review Number: N/A

Accept recommendation. UE&C working on addition backup. UE&C advised that code of account/WBS comparison matrix may be confusing to do with engineering WBS.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 2

ROM Cost Impact:
Package Number:

Construction

Reconciliation matrix was prepared and submitted to WHC to evaluate identifying scope changes.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: 3.6.2
Drawing #:
Zone Location:

Reviewer Identification: SWITA
Rev Comment #: 363
Comment Category: 2
Sheet #:

COMMENT

Verify that Title III approach and estimate % is consistent with current philosophy and approach on WRAP 1 and WRAP 2A contracting methods.

JUSTIFICATION

Consistency.

RECOMMENDATION

See comment.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 9, 1994
Reviewer Signature: W.R. Swita

Assigned Category: 2
Comment Status:
ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 2

ROM Cost Impact:
Package Number:

Construction

Will verify and incorporate into 100%.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: 3.6.4.2.1, 2 & 3
Drawing #:
Zone Location:

Reviewer Identification: SWITA
Rev Comment #: 364
Comment Category: 1
Sheet #:

COMMENT

Descriptions of operating contractor (OC) support and OC project management are outdated and require review and revision for consistency with current approved project capital versus expense determinations and revisions to start-up estimates.

JUSTIFICATION

Consistency with project funding determinations and ICE review results.

RECOMMENDATION

WHC provide markup of section 3.6.4, WHC costs (WBS 400,000) for inclusion in the ACDR.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 9, 1994
Reviewer Signature: W.R. Smith

Assigned Category: 5/2
Comment Status:
ESQ Review Number: N/A

WHC will mark-up applicable sections and provide to UE&C for review and inclusion in the ACDR.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 5/2

ROM Cost Impact:
Package Number:

Construction

WHC to provide UE&C with revised wording.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: 3.7.1 & 2
Drawing #:
Zone Location:

Reviewer Identification: SWITA
Rev Comment #: 365
Comment Category: 2
Sheet #:

COMMENT

3.7.2 states that escalation rates are based on FY-1993 and FY-1994 study. Rates from FY-1993 DOE/KEH study only are applicable.

Engineering cost estimate line items should be escalated using rates for Engineering in lieu of construction labor and material as agreed to in ICE review.

JUSTIFICATION

Hanford material and labor escalation study, Feb. 1993 (Appendix B).

RECOMMENDATION

Confirm that FY-1993 escalation study and engineering escalation rates were properly applied as discussed in the comment.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 9, 1994
Reviewer Signature: W.R. Smith

Assigned Category: 3
Comment Status:
ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 3

ROM Cost Impact:
Package Number:

Construction

Remove reference to FY 1994 Study, as FY 1993 data was used in the estimate. Engineering manhours were escalated using engineering rates.

D 370

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: 3.8.2
Drawing #:
Zone Location:

Reviewer Identification: SWITA
Rev Comment #: 366
Comment Category: 1
Sheet #:

COMMENT

Statement "No contingency was added . . . of the advanced conceptual design phase" is incorrect.

JUSTIFICATION

Contingency assessment was performed to reflect valuation and optimization that took place in the ACD.

RECOMMENDATION

Remove the statement.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 9, 1994
Reviewer Signature: W.R. Swite

Assigned Category: 1
Comment Status:
ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 1

ROM Cost Impact:
Package Number:

Construction

UE&C will remove 2nd to last sentence of Section 3.8.2 beginning "No contingency was added..."

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: Table 3-4
Drawing #:
Zone Location:

Reviewer Identification: SWITA
Rev Comment #: 367
Comment Category: 2
Sheet #:

COMMENT

Engineering WBS 1104: Description stating "minimal uncertainties" is inconsistent with 35% contingency applied.

JUSTIFICATION

Consistency

RECOMMENDATION

Re-evaluate assessment for this WBS and revise accordingly.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 1, 1994
Reviewer Signature: W.R. Swita

Assigned Category: 2
Comment Status:
ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 2

ROM Cost Impact:
Package Number:

Construction

Will revise accordingly.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: Table 3-4
Drawing #:
Zone Location:

Reviewer Identification: SWITA
Rev Comment #: 368
Comment Category: 1
Sheet #:

COMMENT

WBS 1113: Building systems contingency of 15% is inconsistent with description provided and does not provide a complete analysis of contingency required for building/building systems, structure and architectural.

JUSTIFICATION

Appendix C, "Discipline contingency development" adds 33% contingency for buildings/architectural.

RECOMMENDATION

Revise Table 3-4 to provide comprehensive assessment of uncertainties and contingencies for the building/structure.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 9, 1994
Reviewer Signature: W.R. Swita

Assigned Category: 2
Comment Status:
ESQ Review Number: N/A

Accept recommendation. UE&C to evaluate and respond

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 2/4 *WR*

ROM Cost Impact:
Package Number:

Construction

UE&C will update Table 3.4 during Title I design.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: Table 5-2
Drawing #:
Zone Location:

Reviewer Identification: SWITA
Rev Comment #: 369
Comment Category: 2
Sheet #:

COMMENT

WBS shows \$43K for NDA.

JUSTIFICATION

NDA deleted from the facility.

RECOMMENDATION

Clarify and revise as necessary.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 9, 1994
Reviewer Signature: W.R. Swita

Assigned Category: 2
Comment Status:
ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 2

ROM Cost Impact:
Package Number:

Construction

UE&C will revise Table 5-2 with new system titles during Title I design.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: Tables 5-2, 5-4
Drawing #:
Zone Location:

Reviewer Identification: SWITA
Rev Comment #: 370
Comment Category: 2
Sheet #:

COMMENT

WBS breakout between these two tables seem inconsistent.

JUSTIFICATION

Consistency.

RECOMMENDATION

Review and clarify/revise as necessary. Consider using revised engineering WBS submitted with definitive design proposal.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 9, 1994.
Reviewer Signature: W.R. Smith

Assigned Category: 2
Comment Status:
ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 2/4

ROM Cost Impact:
Package Number:

Construction

UE&C will revise Table as follows:

Table 5-2: Change Titles to correspond to Table 5-4.
Table 5-4: Revise according to new WBS (to be developed and approved by WHC/UE&C) during Title I Design

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: II
 Section Paragraph #: Table 5-4
 Drawing #:
 Zone Location:

Reviewer Identification: SWITA
 Rev Comment #: 371
 Comment Category: 1
 Sheet #:

COMMENT

Basis for line item contingency for fire code and shielding requires further discussion with WHC.

JUSTIFICATION

Accepted practice is to tie contingency \$ to specific WBS element work scope (see Appendix C, "Discipline contingency development").

RECOMMENDATION

Revise basis and need for this contingency with WHC. Include contingency in the estimate per accepted practice. Revise estimate accordingly.

WHC DISPOSITION

Assigned WHC Cog: SWITA
 Date Assigned: February 9, 1994.
 Reviewer Signature: W R Swita

Assigned Category: 2
 Comment Status:
 ESQ Review Number: N/A

Accept recommendation. UE&C to evaluate for further discussions with WHC.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 2

ROM Cost Impact:
 Package Number:

Construction

UE&C will move the fire code and shielding contingency into the appropriate WBS contingency categories.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: 7.0
Drawing #:
Zone Location:

Reviewer Identification: SWITA
Rev Comment #: 372
Comment Category: 1
Sheet #:

COMMENT

P3 detail logic schedule shows design as a single line activity. Additional detail is required.

JUSTIFICATION

Adequate design detail and logic is required to establish critical path.

RECOMMENDATION

Revise schedule to incorporate detail previously added to CDR schedule to support project critical path assessment.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 9, 1994
Reviewer Signature: W L Swita

Assigned Category: 1
Comment Status:
ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 1

ROM Cost Impact:
Package Number:

Construction

Accept WHC disposition. UE&C will incorporate design detail previously developed for "Critical path assessment". Design will show MFD work Jan. - March 1994 with the start of Title I design 3/15/94.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: Appendix C, 1.0
Drawing #:
Zone Location:

Reviewer Identification: SWITA
Rev Comment #: 373
Comment Category: 2
Sheet #:

COMMENT

1.2 through 1.7 references are vague. Reference to UE&C design to cost program and trends is absent.

JUSTIFICATION

Clarification.

RECOMMENDATION

Provide specific references to letters, conference notes, submittals, etc.

Provide reference to tie-in to design to cost program and trending.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 9, 1994
Reviewer Signature: W.R. Swita

Assigned Category: 2
Comment Status:
ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 2

ROM Cost Impact:
Package Number:

Construction

Will provide more detail and references.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: Appendix C, 8.0
Drawing #:
Zone Location:

Reviewer Identification: SWITA
Rev Comment #: 374
Comment Category: 1
Sheet #:

COMMENT

Design/construction schedule dates are incorrect.

JUSTIFICATION

Dates consistent with the baseline project schedule (and critical path) were provided to UE&C in December 1993.

RECOMMENDATION

Revise the dates as follows:

- Preliminary Design (Title I) 1/94 - 3/95 (100%)
- 90% Detailed Design (Title II) 1/95 - 11/95
- Final Detailed Design (Title II) 11/95 - 1/96 (100%)
- Construction 6/96 (Award) - 9/98

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 9, 1994.
Reviewer Signature: W.R. Swita

Assigned Category: 1
Comment Status:
ESQ Review Number: N/A

Accept recommendation. UE&C to review and respond.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 1

ROM Cost Impact:
Package Number:

Construction

UE&C will be revising the schedule according to Comment 372 and the recommended dates above.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: 9.0
Drawing #:
Zone Location:

Reviewer Identification: SWITA
Rev Comment #: 375
Comment Category: 2
Sheet #:

COMMENT

Incorrect reference to FY-1992 escalation study.

JUSTIFICATION

Correction

RECOMMENDATION

Revise reference to the Appendix B February 1993 escalation study.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 9, 1994.
Reviewer Signature: W. R. Swita

Assigned Category: 3
Comment Status:
ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 3

ROM Cost Impact:
Package Number:

Construction

UE&C will revise 1st paragraph to indicate FY 93 composite rate table.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: 15.0, 16.0, 17.0
Drawing #:
Zone Location:

Reviewer Identification: SWITA
Rev Comment #: 376
Comment Category: 1
Sheet #:

COMMENT

Inclusions, exclusions and assumptions/qualifications contain redundancies and numerous areas requiring discussion and clarification with WHC and KEH.

JUSTIFICATION

Specific areas that need to be addressed are fire/shielding contingency, KEH responsibilities and qualifications and escalation rates.

RECOMMENDATION

Jointly review in detail and revise as necessary.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 9, 1994.
Reviewer Signature: W.R. Swita

Assigned Category: 2
Comment Status:
ESQ Review Number: N/A

Accept recommendation. UE&C/WHC to review and respond.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 2

ROM Cost Impact:
Package Number:

Construction

Estimate basis comments to be revised as follows:

- 1) Section 15.3 & 16.17^{us} will be consolidated in one place as an inclusion.
- 2) Section 17.26 - State used DOE Escalation Study.
- 3) Section 17.27 - State schedule was completely revised.
- 4) Section 17.28 - Delete.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: Appendix C
Drawing #:
Zone Location:

Reviewer Identification: SWITA
Rev Comment #: 377
Comment Category: 2
Sheet #:

COMMENT

"Discipline Contingency Development" table, formatted by UE&C code of accounts, shows four (4) categories of contingency. Definition and basis for the four (4) categories of contingency is not adequately described.

JUSTIFICATION

Contingencies assigned should be based on risks associated with identified uncertainties. Assessments should be provided by Engineering, Estimating and Management.

RECOMMENDATION

Review definition and basis for contingencies and reconcile to uncertainties and risks. Revise ACDR to substantiate contingencies included in the estimate. Consider formatting by Engineering WBS.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 9, 1994
Reviewer Signature: *W. R. Swita*

Assigned Category: 2
Comment Status:
ESQ Review Number: N/A

Accept recommendation. UE&C to review and respond. UE&C advised that it may be too confusing to use Engineering WBS breakout.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 2

ROM Cost Impact:
Package Number:

Construction

UE&C will update to match estimate revision but will omit from future issues of the report.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: II
 Section Paragraph #: Appendix C
 Drawing #:
 Zone Location:

Reviewer Identification: SWITA
 Rev Comment #: 378
 Comment Category: 2
 Sheet #:

COMMENT

"Discipline Contingency Development" Table: Discipline contingency for electrical is very low (10%).

JUSTIFICATION

Appears to be inconsistent with schedule which shows all electrical work on critical path.

RECOMMENDATION

Re-evaluate basis for electrical contingency.

WHC DISPOSITION

Assigned WHC Cog: SWITA
 Date Assigned: February 9, 1994
 Reviewer Signature: W. R. Smith

Assigned Category: 2
 Comment Status:
 ESQ Review Number: N/A

Accept recommendation. UE&C to review and respond.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 3

ROM Cost Impact:

Construction:

This contingency was used after a thorough line-by-line review of the electrical estimate; however, we will be re-evaluating the schedule of all electrical items.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: I
 Section Paragraph #: 7.2.10.2(2b)
 Drawing #:
 Zone Location:

Reviewer Identification: LECLAIR
 Rev Comment #: 379
 Comment Category: 2
 Sheet #:

COMMENT

The last sentence of the subject paragraph is inconsistent with G. F. Boothe guidance (DSI, "PFD Action Items, G. F. Boothe to T. R. Pauly, dated 12/21/93). He states that "...any chemicals that are opened in the hood or even the room must be considered potentially contaminated. All this means is that before disposal of any hazardous waste generated in the Sample Management Area, we should assay the waste for radioactivity, which is a good idea anyway."

JUSTIFICATION

The "hand held monitors" mentioned in the ACDR can only detect surface contamination of a sample container. Hand held monitoring will probably be done in any event. However, per the moratorium/approved Protocol, if a sample is opened within a Radioactive Waste Management Area (RWMA), it must also be assayed to confirm that there is no volume contamination of the sample. Volume contamination cannot be detected with monitors.

RECOMMENDATION

Consider the addition of a separate Zone 3 area to manage (track, repackage, ship) non-radioactive samples. This would eliminate the need to assay non-radioactive samples or manage non-radioactive samples as radioactive samples simply because they were opened in the SMA Zone 2 area.

WHC DISPOSITION

Assigned WHC Cog: LECLAIR
 Date Assigned: February 9, 1994
 Reviewer Signature: MB. LeClair

Assigned Category: 2
 Comment Status:
 ESQ Review Number: N/A

Agree with recommendation.

03/02/94

Final Disposition

A-E Lead Engineer: Voke

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree. See comment 5 for detailed disposition.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #: N/A
Drawing #: H-2-140631
Zone Location: C: 3-6

Reviewer Identification: CARLSON
Rev Comment #: 380
Comment Category: 2
Sheet #: 1 OF 6

COMMENT

Section B (Cut) does not match Elev. Viewon H-2-140632. Cut should go through exactly where items/equipment are, as depicted on the Elevation.

JUSTIFICATION

Cuts and Elevations should match.

RECOMMENDATION

Correct.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 9, 1994
Reviewer Signature: _____

Assigned Category: 2
Comment Status:
ESQ Review Number:

UE&C will provide revised drawing sections.

Final Disposition

A-E Lead Engineer: Wilson

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Disagree - Elevation of this lower level (as shown on dwg. H-2-140632) does agree with the section cut B-B as shown on this drawing.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #: N/A
Drawing #: H-2-140631
Zone Location: Entire

Reviewer Identification: CARLSON
Rev Comment #: 381
Comment Category: 2
Sheet #: 2 of 6

COMMENT

All of the cuts on this drawing are incorrectly marked with the exception of cut A. The other cuts B, C, and D should be drawn or cut through the equipment, as depicted on their respective elevations, shown on drawing H-2-104632.

JUSTIFICATION

Correct.

RECOMMENDATION

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 9, 1994
Reviewer Signature: _____

Assigned Category: 2
Comment Status: _____
ESQ Review Number: _____

UE&C will correct drawing errors.

Final Disposition

A-E Lead Engineer: Wilson

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree - adjusted locations of section marks B-B, C-C & D-D for clarification.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #: N/A
Drawing #: H-2-140631
Zone Location: 4: B - F

Reviewer Identification: CARLSON
Rev Comment #: 382
Comment Category: 2
Sheet #: 3 of 6

COMMENT

Cut section D is incorrectly located. This section should have been cut between column lines 6 and 7.

JUSTIFICATION

Relocate to be consistent to the elevation as depicted on H-2-140632.

RECOMMENDATION

Correct.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 9, 1994
Reviewer Signature: _____

Assigned Category: 2
Comment Status:
ESQ Review Number:

UE&C will correct drawings

Final Disposition

A-E Lead Engineer: Wilson

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree - adjusted location of section mark D-D for clarification.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #: N/A
Drawing #: H-2-140632
Zone Location: 3/E

Reviewer Identification: CARLSON
Rev Comment #: 383
Comment Category: 4
Sheet #: 1 of 5

COMMENT

Narrow Isle Stacker not shown at elevation 134'0".

JUSTIFICATION

Depict as shown on Plan View drawing H-2-140631.

RECOMMENDATION

Correct.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 9, 1994
Reviewer Signature: _____

Assigned Category: 4
Comment Status:
ESQ Review Number:

Address in title design

Final Disposition

A-E Lead Engineer: Wilson

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree - revised drawing to show narrow aisle stacker.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #: N/A
Drawing #: H-2-140632
Zone Location: C: 3 - 5

Reviewer Identification: CARLSON
Rev Comment #: 384
Comment Category: 2
Sheet #: 3 of 5

COMMENT

At elevation 117'0", PE Bin T-05-404, Additive Hopper T-05-521, Additive Hoppers T-05-216A and 216B, and Blended Powder Silo's 215 and 216 are not shown.

JUSTIFICATION

Correct to show as drawn on Plan View, or correct the cut as mentioned above in comment #3.

RECOMMENDATION

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 9, 1994
Reviewer Signature: _____

Assigned Category: 2
Comment Status: _____
ESQ Review Number: _____

UE&C will correct drawings.

Final Disposition

A-E Lead Engineer: Wilson

Final Category: 2

ROM Cost Impact:

Construction Package Number:

No change to this drawing; revised section mark D-D on drawing H-2-140631 sheet 3 to clarify. (Ref. comment No. 382)

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #: N/A
Drawing #: H-2-140649
Zone Location: B/4

Reviewer Identification: CARLSON
Rev Comment #: 385
Comment Category: 4
Sheet #: 1 of 1

COMMENT

Note #24: How is this to be determined at this point in the operation sequence?

JUSTIFICATION

Please clarify.

RECOMMENDATION

WHC DISPOSITION

Assigned WHC Cog: PAULY
Date Assigned: February 9, 1994
Reviewer Signature: *[Signature]*

Assigned Category: 2
Comment Status: 0
ESQ Review Number:

UE&C is requested to revise section 5.9.3 of Volume 1 to indicate that the diverter gate is set to route shredded material to either the mercury evaporator or direct repack based on the particular waste processing campaign being performed.

Final Disposition

A-E Lead Engineer: Nelson

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree. Revised text to state that diverter gate will be set to route shredded waste based on visual observation of the waste prior to shredding.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #: N/A
Drawing #: H-2-140716
Zone Location: Entire

Reviewer Identification: CARLSON
Rev Comment #: 386
Comment Category: 4
Sheet #: 1 of 1

COMMENT

Some minor elevations missing; and at "upper level", column line 8 to 9,
Container/Storage Retrieval station not shown.

JUSTIFICATION

Consistency.

RECOMMENDATION

Please add.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 9, 1994
Reviewer Signature: _____

Assigned Category: 4
Comment Status:
ESQ Review Number:

Address in title design and change drawings in ACDR.

FinalDisposition

A-E Lead Engineer: Wilson

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree - added elevation dimensions.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: IV
Section Paragraph #: N/A
Drawing #: H-2-140717
Zone Location: E: 6 to 8

Reviewer Identification: CARLSON
Rev Comment #: 387
Comment Category: 4
Sheet #: 1 of 1

COMMENT

Missing roof elevation on column 2; and missing roof peak elevation at column line 5.

JUSTIFICATION

Consistency.

RECOMMENDATION

Please add.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 9, 1994
Reviewer Signature: _____

Assigned Category: 4
Comment Status:
ESQ Review Number:

Add to drawings for clarity.

Final Disposition

A-E Lead Engineer: Wilson

Final Category: 2

ROM Cost Impact:

Construction Package Number:

Agree - added elevation dimension at column line 5, (note: roof elevation on column line 2 is already shown).

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 6.1.3.1
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: CARLSON
Rev Comment #: 388
Comment Category: 2
Sheet #: N/A

COMMENT

The pavement limit should be sized to accommodate truck turning movements.

JUSTIFICATION

The design should meet this need.

RECOMMENDATION

Please size as necessary.

WHC DISPOSITION

Assigned WHC Cog: NASH
Date Assigned: February 9, 1994
Reviewer Signature: _____

Assigned Category: 2
Comment Status: _____
ESQ Review Number: _____

Final Disposition

A-E Lead Engineer: Trimbell

Final Category: 2

ROM Cost Impact:

Construction Package Number:

See CDR drawing H-2-140720. The access to the south side of the building has been indicated, but the layout outside of the "limit of work" boundary is by others (to be developed under W-112). Revised paragraph 6.1.3.1 to clarify.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 6.2.1.1
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: CARLSON
Rev Comment #: 389
Comment Category: 4
Sheet #: N/A

COMMENT

General comment: 2A cost will be significantly higher if Project W-112 does not come on line in conjunction with this project in regards to the utilities. Much reference is made to utility systems i.e. sewer system etc. which will be provided by W-112. Consideration should be given timely enough to react should this project not get built in time to support WRAP2A.

JUSTIFICATION

RECOMMENDATION

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 9, 1994
Reviewer Signature: _____

Assigned Category: 5
Comment Status:
ESQ Review Number:

Interface with W112 A/E for addressing the issue.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 5

ROM Cost Impact:

Construction Package Number:

Accept WHC disposition. WHC will interface with W112.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 6.2.3.1.4
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: CARLSON
Rev Comment #: 390
Comment Category: 4
Sheet #: N/A

COMMENT

General comment: Why is WRAP 2A not intended for handicapped occupancy?

JUSTIFICATION

A lot of attention is being addressed by the Equal Employment Opportunities Organization (WHC) to provide work assignments for handicapped individuals based on pre-qualified applicant screening. Could this statement or this project be in any violation of E.E.O. agreements?

RECOMMENDATION

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 9, 1994
Reviewer Signature: _____

Assigned Category: 5
Comment Status:
ESQ Review Number:

Provide handicap requirements in SDRD revision.

Final Disposition

A-E Lead Engineer: Basu

Final Category: 5

ROM Cost Impact:

Construction Package Number:

Refer to CDR Volume I Appendix D as signed by WHC. No change to ACDR.

**WRAP 2A ACDR Review
Design Review Comment Submittal**

Document Title: WRAP 2A ACDR
Volume #: I
Section Paragraph #: 6.2.3.1.11
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: CARLSON
Rev Comment #: 391
Comment Category: 2
Sheet #: N/A

COMMENT

On Figure 6-2, page I-9, the provision for future expansion of the transfer corridor on the south face does not appear to be shown?

JUSTIFICATION

Please indicate where this tie would be made.

RECOMMENDATION

Clarify on sketch, Figure 6-2.

WHC DISPOSITION

Assigned WHC Cog: LAMBERD
Date Assigned: February 9, 1994
Reviewer Signature: _____

Assigned Category: 2
Comment Status:
ESQ Review Number:

UE&C will correct drawings.

Final Disposition

A-E Lead Engineer: Wilson

Final Category: 3

ROM Cost Impact:

Construction Package Number:

Disagreee - text changed for clarity; no drawing change nor Figure change required.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
Volume #: II
Section Paragraph #: Table 1-1
Drawing #: N/A
Zone Location: N/A

Reviewer Identification: CARLSON
Rev Comment #: 392
Comment Category: 2
Sheet #: N/A

COMMENT

Correct the "Subtotal" amount shown and add these numbers to the correct amount down through the TPC or correct the dollar amounts as necessary.

JUSTIFICATION

Appears to be an accounting error?

RECOMMENDATION

Correct these totals.

WHC DISPOSITION

Assigned WHC Cog: SWITA
Date Assigned: February 9, 1994
Reviewer Signature: J.H. (Per TAL (Per TELECOM))

Assigned Category: 2
Comment Status:
ESQ Review Number: N/A

Accept recommendations.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 2

ROM Cost Impact:

Construction Package Number:

UE&C will revise Table 1-1.

WRAP 2A ACDR Review
Design Review Comment Submittal

Document Title: WRAP 2A ACDR
 Volume #: II
 Section Paragraph #: 6.2.1 & 2
 Drawing #: N/A
 Zone Location: N/A

Reviewer Identification: CARLSON
 Rev Comment #: 393
 Comment Category: 1
 Sheet #: N/A

COMMENT

Reference Construction Schedule Figure 7-1: The logic between CWBS 1123, 1124 and 1127 does not tie together. The contractor can't start fabrication and delivery of bldg.'s and or equip. at the same time and "Bid and Award" of contract starts or takes place.

JUSTIFICATION

May require adding more duration to this schedule.

RECOMMENDATION

Re-evaluate this logic.

WHC DISPOSITION

Assigned WHC Cog: SWITA
 Date Assigned: February 9, 1994
 Reviewer Signature: F. H. A. R. R. E. T. A. L.

Assigned Category: 1
 Comment Status:
 ESQ Review Number: N/A

Accept recommendation.

Final Disposition

A-E Lead Engineer: McClendon

Final Category: 1

ROM Cost Impact:
 Package Number:

Construction

Accept WHC disposition. The schedule is being revised.