

Meeting Minutes Transmittal

Project W-464 and W-520 Recovery Plan Definitions of Critical Systems and 80% Design
Media
2440 Stevens, Room 1200
Richland, Washington
April 16, 2002
2:00 p.m. – 3:30 p.m.

The undersigned indicate by their signatures that these meeting minutes reflect the actual occurrences of the above dated Immobilized Waste Part B Permit Application Design Drawing Review Meeting.

G. M. Neath

G. M. Neath, DOE-ORP

Date: 07/16/2002

G. P. Davis

G. P. Davis, Washington State Department of Ecology

Date: 6-27-02

CHG Concurrence:

G. L. Parsons

G. L. Parsons, CHG

Date: 6-19-02

K. S. Tollefson

K. S. Tollefson, CHG

Date: 6-26-02

Purpose: Immobilized Waste Part B Permit Application Design Drawing Review Meeting

Attachment 1: Agenda & Action Item List
Attachment 2: Meeting Minutes
Attachment 3: Attendee List
Attachment 4: Distribution List

RECEIVED
JUL 23 2002

EDMC

ENGINEERING DATA TRANSMITTAL

2. To: (Receiving Organization) Distribution	3. From: (Originating Organization) Immobilized Waste Projects	4. Related EDT No.: N/A
5. Proj./Prog./Dept./Div.: Projects W-464 and W-520	6. Design Authority/Design Agent/Cog. Engr.: K. A. Colosi	7. Purchase Order No.: N/A
8. Originator Remarks: Project W-464 and W-520 Recovery Plan Definitions of Critical Systems and 80% Design Media Meeting Minutes from 4/16/2002 are attached for information.		9. Equip./Component No.: N/A
11. Receiver Remarks: 11A. Design Baseline Document? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		10. System/Bldg./Facility: N/A
		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	Approval Designator	Reason for Transmittal	Originator Disposition	Receiver Disposition
1	N/A	N/A	N/A	Project W-464 and W-520 Recovery Plan Definitions of Critical Systems and 80% Design Media Meeting Minutes 4/16/2002	N/A	3		

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

17. SIGNATURE/DISTRIBUTION (See Approval Designator for required signatures)											
(G) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN	(G) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN
		Design Authority		N/A		3		See distribution sheet in minute text for additional names.			
		Design Agent		N/A							
3		Cog. Eng.		K. A. Colosi	L6-75						
3		Cog. Mgr.		G. L. Parsons	L6-75						
		QA		N/A							
		Safety		N/A							
3		Env.		K. S. Tollefson	R1-51						

17. <i>H L Baune</i> 7-17-02 H. L. Baune Signature of EDT Originator Date	18. <i>K. A. Colosi</i> K. A. Colosi 7/17/02 Authorized Representative For Receiving Organization Date	19. N/A ^{TB} Design Authority/Cognizant Manager Date	20. DOE APPROVAL (if required) Ctrl. No. <u>N/A</u> <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/comments <input type="checkbox"/> Disapproved w/comment
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Attachment 1

Project W-464 and W-520 Recovery Plan Definitions of Critical Systems and 80% Design Media

2440 Stevens, Room 1200

Richland, Washington

April 16, 2002

2:00 p.m. – 3:30 p.m.

1. Project W-464 and W-520 Recovery Plan Definitions of Critical Systems and 80% Design Media package review
2. Establish Meeting Time for Follow On Meeting

A follow on meeting was not established. Heather Baune will submit a project availability schedule to Kathy Tollefson. Ms. Tollefson will coordinate the project schedule with Ecology and DOE personnel.

ACTION TRACKING LIST

Action	Assignee	Date Established/Due Date	Status
Provide Project availability schedule to Ms. K. S, Tollefson in order to set up regular meetings with Ecology	H. Baune	05/01/02	Complete
Provide an electronic link of Recovery Plan to Ecology	K. Tollefson	04/17/02	Complete

Attachment 2
Summary of Discussion and Commitments/Agreements

**Project W-464 and W-520 Recovery Plan Definitions of Critical Systems and 80% Design
Media**

2440 Stevens, Room 1200

Richland, Washington

April 16, 2002

2:00 p.m. – 3:30 p.m.

ADMINISTRATIVE ISSUES

None

**PROJECT W-464 AND W-520 RECOVERY PLAN DEFINITIONS OF CRITICAL
SYSTEMS AND 80% DESIGN MEDIA**

Kathy Tollefson – Briefly mentioned the Recovery Plan and explained the purpose of the meeting was to clarify definition of 80% design of critical systems. Ms. Tollefson also presented Project W-464 and W-520 Recovery Plan Definitions of Critical Systems and 80% Design Media (please see attached handout).

Greta Davis – Requested a copy of the Recovery Plan. Kathy Tollefson agreed to provide a copy of the Recovery Plan or an Internet link to the Recovery Plan.

Greg Parsons- Exhibited examples of what Ecology could expect for 80% design of critical systems using drawings from the mixed waste trench. It was indicated 80% design media would vary slightly in that it would not be stamped by a professional engineer.

Greta Davis- Asked whether HEPA filters would be used with the natural convection cooling system. Greg Parsons indicated HEPA filters would not be used for vault cooling but are used for the above deck system.

Robbie Biyani- Inquired if the air flowed inside the tube assembly to cool the canisters. Greg Parsons provided an explanation via a hand drawn sketch describing the tube, plug, and bellows assembly. It was stated that the natural convection system cools the sealed tubes with air passing the outer surface of the tube. Approximately 1" of air separates the internal tube wall from the canister. Mr. Parsons further explained the maximum allowable temperature of the canister is 400 °C and calculations indicate the maximum canister temperature reached is 250 °C.

Robbie Biyani- Queried as to whether the Canister Storage Building (CSB) facility is the only facility to house IHLW and whether future IHLW facilities would have separate Part B Permits. Greg Parsons responded that other IHLW facilities are planned but design has not yet been finalized and the current permit has only been written for CSB.

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Phil LaMont –Phil responded that delisting of IHLW and maybe ILAW will be pursued and future facilities might not need permitting.

Greta Davis- Asked about impact absorber design and whether the absorbers serve in a seismic capacity. Greg Parsons answered with a brief description of the absorbers and stated the tube system is seismically qualified which includes the impact absorbers.

Greta Davis- Had a question regarding overpack. Mr. Parsons responded saying each vault has 6 overpack holes but the CSB will not have overpack capabilities.

Robbie Biyani- Wondered what exactly the FFTF Transloading Pit was. Greg Parsons explained that the pit was one that already exists at the CSB. This pit would be modified by Project W-464 to receive the transportation cask.

NEW TOPICS

None

**Attachment 3
Attendance List**

Meeting Title: Project W-464 and W-520 Recovery Plan Definitions of Critical Systems and
80% Design Media

Date: April 16, 2002

Original included in hard copy

Name	Company	Phone Number
Carol Babel	DOE-ORP	373-9281
Heather Baune	CHG	372-3393
Robbie Biyani	Ecology	736-7018
Dewey Burbank	CHG	372-3356
Kris Colosi	CHG	372-3395
Greta Davis	Ecology	736-3025
Phil LaMont	DOE-ORP	376-6117
Gae Neath	DOE-ORP	376-7828
Greg Parsons	CHG	372-3387
Kathy Tollefson	CHG	373-9120
Ted Wooley	CHG	372-1617

Project W-464 and W-520 Recovery
Plan Definitions of Critical Systems
and 80% Design Media

Tuesday, April 16, 2002

Office of River Protection- Department of Energy
CH2M Hill Hanford Group, Inc.

Agenda

- Recovery Plan Changes to TPA Milestones Language and Dates
- Proposed Critical Systems
- Proposed Definition of 80% Design
- Non-Critical Systems and Activities
- Establish Schedule for Regular Project Meetings with Ecology

Project W-520 (ILAW) TPA Recovery Plan Milestones

Recovery Plan Milestone Language	Recovery Plan Date
M-20-57 Submit ILAW Disposal Facility certified Part B Permit Application to Ecology	06/30/2003
M-90-08 Initiate ILAW Disposal Facility construction. Initiation of construction occurs when DOE or it's contractor (as authorized) issues an approval to start construction and the contractor commences excavation of non-critical systems within the RCRA Disposal Facility.	02/28/2005
M-90-09-T-01 Complete detailed design of ILAW Disposal Facility critical systems to 80%. Detailed design of critical systems includes the A) liner B) leachate collection system and C) leak detection system.	05/30/2003
M-90-10 Initiate placement of ILAW waste canisters in ILAW Disposal Facility (low activity packages placed within these facilities will be retrievable).	8/31/2008

Project W-520 (ILAW) Key Assumptions:

- Non-critical system construction can proceed without a final status permit.
- The proposed Recovery Plan is approved.
- Critical Systems are:
 - Liner System
 - Leachate Collection System
 - Leak Detection System
- Ecology accepts the certified permit application with 80% design completion of critical systems and begins processing the permit application upon receipt.
 - Critical Systems Ready for Final Design Review
 - Will Be Stamped by a Registered Professional Engineer After Final Design Review
- The permitting process will take 2 years to obtain a final status permit.
- A final status permit will be issued in 2005.

Project W-520 (ILAW) Non-Critical Systems and Activities

- Rough Excavation of Trench
- Roadway Construction
- Removal of Steam Line
- Utilities
- Modifications to Existing Water Pipe
- Support Facility
- Lighting
- Clearing and Grubbing of Site
- Perimeter Fencing
- Cask/Transporter System

Project W-520 (ILAW) Critical Systems

- **Liner System** The double liner system is required by WAC 173-303-665(2)(h) and design requirements are found in WAC 173-303-665(2)(h)(i). The liner system functions to prevent the release of hazardous materials to the environment.
- **Leachate Collection System** The leachate collection and removal system is required by WAC 173-303-665(2)(h) and design requirements are found in WAC 173-303-665(2)(h)(ii). The leachate collection system functions to prevent the release of hazardous materials into the environment.
- **Leak Detection System** The leak detection system is required by WAC 173-303-665(2)(h) and design requirements are found in WAC 173-303-665(2)(h)(iii). The leak detection system functions to prevent the release of hazardous materials into the environment.

Project W-520 (ILAW) 80% Design of Critical Systems

- Drawings: Site Plan, Grading Plan, Secondary Admix Contours, Operations Layer Contours, Cross Sections, Liner System Details, Sump Layout, Sump Cross-Sections, Leachate Collection Piping, Side Slope and Vertical Riser Pipes, Leachate Collection Tank and Piping, Sump Pump Details, Electrical System, Leachate Tanker Loadout System
- Specifications: Site Work, including General Excavation and Backfill; Trenching and Backfilling; Admix Production, Placement, Compaction, and Trimming; Granular Drainage Layers; Operations Layer; Geosynthetics; Drainage Facilities; HDPE Pipe and Flatstock; Vertical Riser Pipe; Equipment, including Leachate Pumps; Leachate Temporary Storage Tank

Project W-464 (IHLW) TPA Recovery Plan Milestones

Recovery Plan TPA Milestone Language	Recovery Plan Date
M-20-56 Submit Canister Storage Facility Part B Dangerous Waste Permit Application to Ecology	06/30/2003
M-90-11 Complete Canister Storage Facility Construction. For permitting purposes detailed design of critical systems includes the canister storage tube system.	06/30/2009

Project W-464 (IHLW) Key Assumptions:

- Non-critical system construction can proceed without a final status permit.
- The proposed Recovery Plan is approved.
- Critical System is: Canister Storage Tube System
- Ecology accepts the certified permit application with 80% design of critical systems and begins processing the permit application upon receipt.
 - Critical Systems Ready for Final Design Review
 - Will Be Stamped by a Registered Professional Engineer After Final Design Review
- The permitting process will take two years to obtain a final status permit.
- A final status permit will be issued in 2005.
- Existing CSB design media will not be PE stamped.

Project W-464 (IHLW) Non-Critical Systems and Activities

- **MHM:** The MCO Handling Machine (MHM) is an existing, large, shielded crane used to move the canister from the receiving pit, across the operating deck, and lower it into the tube. The MHM also removes and replaces the cask lid, and places impact absorbers in the tubes. MHM modifications will include grapple change out, and new control system modes to accommodate the canister operation.
- **FFTF Pit:** The FFTF Transloading Pit is used for transfer of the canister from the transportation cask to the MHM. FFTF modifications will include: IHLW cask holding frame, a make-up/shielding ring, and a modest impact absorber
- **Stacks:** Each vault will be designed to allow heat to be removed by natural convection. Appropriately sized intake and exhaust stacks will be constructed and installed to allow cooling air to be drawn through each of the vaults.
- **Cask/Transporter System** consists of a shielded cask, containing an IHLW canister from the Waste Treatment Plant (WTP), mounted on a trailer specifically designed for the cask. The cask will be fitted with a removable lid, and will be secured to the trailer via a tiedown system. The cask/transporter system will be used to shuttle IHLW canisters from the WTP to the CSB
- Any other activities not related to the storage tube system.

Project W-464 (IHLW) Critical Systems

The Canister Storage Tube System consists of:

- Storage Tube
- Lower Impact Absorber
- Upper Impact Absorber
- Bellows
- Shield Plug
- Cover

Project W-464 (IHLW) 80% Design of Critical Systems

- The 80% design package for the IHLW critical system (i.e. Canister Storage Tube System) will include a performance specification with sketches of the critical system. Final calculations and fabrication drawings will not be available at the time of submittal of the Rev 0 part B application. Design media will be ready for final design review, but will not be stamped by a Registered Professional Engineer until the design review is complete.
- Drawings/Sketches: Tube, Lower Impact Absorber, Upper Impact Absorber, Bellows, Shield Plug, and Cover.
- Specifications: Canister Tube System.