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Meeting Minutes Transmittal

324 REC/HLV CLOSURE PLAN
Project Manager's Meeting
3763 Building Conference Room
Richland, Washington

February 6, 1997
3:30 p.m. to 4:30 p.m.

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

R. X. Gonzalez Date: 3/13/97
R. X. Gonzalez, Project Manager, RL

J. J. Wallace w/changes Date: 3/13/97
J. J. Wallace, Project Manager, Washington State Department of Ecology

324 REC/HLV Closure Plan, BWHC Concurrence

David E Rasmussen Date: 3/13/97
D. E. Rasmussen, Contractor Representative, BWHC

Purpose: Discuss Permitting Process

Meeting Minutes are attached. The minutes are comprised of the following:

- Attachment 1 - Agenda
- Attachment 2 - Summary of Discussion and Commitments/Agreements
- Attachment 3 - Attendance List
- Attachment 4 - 324 Building Deactivation Brainstorming Session Notes 1/23/97
- Attachment 5 - Draft 324 Sodium Removal Pilot Plant Public Involvement Plan, Version February 5, 1997



Attachment 1

324 REC/HLV
Project Manager's Meeting
3763 Building Conference Room
Richland, Washington

February 6, 1997
3:30 p.m. to 4:30 p.m.

AGENDA

1. Signing previous meeting minutes
2. 324 REC/HLV closure plan status
 - a. Recent closure strategy workshop 1/23/97
 - b. Closure plan status
3. B-Cell cleanout project status
 - a. Budget
 - b. Equipment
4. HLV removal project status
 - a. Sample analysis
 - b. Waste removal
5. 324 pilot plant part A procedural closure
6. Action item review

J. Wallace will investigate the path forward for the sample analysis of the split sample taken from tank 112
7. Other topics/general discussion
 - a. 324 deactivation/transition Project Management Plan (PMP)
 - b. 324 endpoint criteria document
 - c. Silver list issues item resolution
 - d. 340 facility plans, clarify
8. Schedule next meeting

Attachment 2

324 REC/HLV
Project Managers Meeting
3763 Building Conference Room
Richland, Washington

February 6, 1997
3:30 p.m. to 4:30 p.m.

Summary of Discussion and Commitments/Agreements

1. Signing Previous Meeting Minutes

The January 9, 1997, Project Manager Meeting (PMM) minutes were approved. The final Data Quality Objective (DQO) document was attached to the meeting minutes. D. Rasmussen (BHWC) noted that clarifications were made to the January PMM Meeting Minutes regarding the 324 piping, the crib waste system, and the delay of the 340 Facility shutdown until the 327/324 issues are addressed.

2. 324 REC/HLV Closure Plan Status

a. 324 Deactivation/Closure Strategy Workshop 1/23/97

G. LeBaron (BHWC) reported that a technical basis for 324 Building deactivation work and the criteria to be applied in deciding the approach were defined during the workshop. Three main areas were defined as needing either technical evaluation or a trade study: 1) how to proceed with the high level vault; 2) how to address the piping for closure; 3) comparison of the facility radioactive inventory categories after deactivation versus what is there now versus how to proceed with the HVAC system to go into a lower category.

A planning case was established for the 324 Building high-level vault to remove the vessels and piping.

G. LeBaron will provide minutes from the workshop, and they will be incorporated with the 324 PMM minutes (Attachment 4).

b. Closure Plan Status

A. Prignano (RFSH) stated that the closure plan is being drafted, and the planning cases that were established in the 1/23/97 workshop are being incorporated.

J. Wallace (Ecology) asked if there is a concern regarding the management of soil underneath the 324 building. R. Gonzalez (RL) responded that a determination has not been made, if a larger than 1/5 square inch hole is found in the liner, what the next step would be. J. Wallace asked if the issue is being limited to the

324 closure. R. Gonzalez indicated that is the direction RL is taking. R. Gonzalez added that the transition activities would prefer to stop at the floor of the building, and anything under the building would be the responsibility of the environmental restoration contractor (ERC-Bechtel).

3. B-Cell Cleanout Project Status

a. Budget

L. Romine (RL) reported that RL is proceeding with the plans to spend the approximately 6 million dollars for B-Cell cleanout. J. Wallace requested an integrated priority list for select units of analysis. L. Romine agreed to provide J. Wallace a copy. L. Romine stated that he would be the 300 Area facility transition point of contact if J. Wallace had comments on specific units on the priority list.

b. Equipment

P. Weaver (BWHC) reported that during preparation to install the three and a half-ton crane back into B-Cell, some decontamination work was being done in the air lock and a skin contamination occurred. Following corrective action, during the next entry into the air lock there was a second skin contamination. At the present time, a through review and update of procedures for air lock work is being done by BWHC building personnel, and Fluor Daniel Hanford radiological control personnel.

BWHC is continuing to plan for the next rack removal.

R. Gonzalez reported on the laser demo. The operators started cutting in the cold side of the cell on 1/19/97, and are targeting the end of March 1997 to start cutting in the hot environment.

P. Weaver added that there is a question about how long the laser optics can survive the high radiation field, and the possibility that the laser will melt or that clouding will occur as soon as the laser is put in the hot cell. BWHC is considering options for shielding the laser.

4. HLV Removal Project Status

a. Sample Analysis

P. Weaver stated that there are two sets of samples of the last rinse from the final processing and the ion exchange resins containing cesium. The TCLP extraction on the resin samples and the rinsate will be run at the same time, due to the high dose rates.

b. Waste Removal

P. Weaver stated that the metal filters are still in D-Cell, and will be moved to B-Cell following installation of the three and a half-ton crane in the air lock. P. Weaver estimated that activity is expected to take place by the end of February 1997.

5. 324 Pilot Plant Part A Procedural Closure

G. Davis (Ecology) reported that she is in the process writing the acceptance letter for procedural closure. The draft focus sheet has been written and reviewed, and the 30 to 45-day advance notice is scheduled for February 10, 1997. G. Davis provided E. Mattlin (RL) a copy of the expected schedule (Attachment 5).

6. Action Item Review

10/09/96:2, J. Wallace will investigate the path forward for the sample analysis of the split sample taken from Tank 112.

J. Wallace inquired about the time remaining on the clock for sample analysis. S. Johansen (Dames & Moore) responded that the time is 180 days, which is approximately March 31, 1997. S. Johansen confirmed that J. Bartz (Ecology) has not contacted her regarding the path forward for the split sample. This action item remained open.

7. Other Topics/General Discussion

a. 324 Deactivation/Transition Project Management Plan (PMP)

L. Romine reported that PUREX Facility personnel are assisting with preparation of the PMP.

b. 324 Endpoint Criteria Document

L. Romine stated that the draft end points have been assembled for 324, and the 327 end points are in the process of being developed. A copy of the end point criteria for 324 and 327 will be transmitted to J. Wallace in March 1997.

J. Wallace initiated a discussion regarding the identification of 324 as a key, non-key or surplus facility. R. Gonzalez stated that 324 was not identified in RL's long-range decommissioning plan as a key facility; however, the outline of activities for a key facility contained in Section 8 of the Tri-Party Agreement (TPA) will be followed. H. Tilden (PNNL) indicated that the facilities were identified as key or non-key, and 324 is a non-key facility. J. Wallace stated that Section 8 states that stakeholder and regulator input is to be included during the evaluation of the facilities, and that she was not notified of the evaluation.

J. Wallace expressed a concern she generated from reading Section 8 of the TPA that facility transition is not required to do long-term surveillance and monitoring. L. Romine explained that the ERC is responsible for the long-term surveillance and maintenance until the final decontamination and decommissioning (D&D), when the end state land use and an environmental impact statement would be performed. L. Romine stated that facility transition will develop a surveillance and maintenance plan to provide to the ERC, and Ecology will have input in the development of the RCRA-related portions of the plan.

L. Romine stated that he would provide J. Wallace a copy of the flow chart from the TPA outlining the path from operation to disposition.

c. Silver List Issues Item Resolution

J. Wallace stated that she had not reviewed the document that R. Gonzalez transmitted.

d. 340 Facility Plans, Clarify

R. Gonzalez previously clarified that shutdown of the 340 Facility is being delayed until 324/327 issues are resolved. J. Wallace stated that she attended a briefing on 1/7/97, and obtained a list of funding which indicates the 340 Facility would be shut down in 1998. L. Romine reviewed the list and pointed out that the near-term dollars are less, but they increase through 2002. L. Romine stated his understanding of the definition of the 340 shutdown is only the non-RCRA compliant tank enclosure, and it doesn't reduce the cost of the associated 340 function.

8. Schedule Next Meeting

J. Wallace suggested coordinating the 324 REC/HLV PMM with the 300 WATS and 303-K PMMs. The next 324 PMM was scheduled for March 13, 1997.

Attachment 3

Attendance List

Class/Meeting Title 324 Building REC/HLV Project Managers Meeting (PMM)

February 6, 1997

Name	Company	Phone Number
Greta Davis	Ecology	736-3025
Rick Gonzalez	DOE-RL	373-9922
Stephanie Johansen	Dames & Moore	376-5960
Kathy Knox	Knox Reporting	
David Langstaff	DOE-RL	372-4013
Greg J. LeBaron	BWHC	373-1792
Ellen Mattlin	DOE-RL	376-2385
Andrea L. Prignano	RFSH	376-1057
David E. Rasmussen	BWHC	376-3288
Larry Romine	DOE-RL	376-4747
Clint Stuart	Ecology	736-3010
Harold Tilden	PNNL	376-0499
Jeanne Wallace	Ecology	736-3019
Patrick Weaver	BWHC	376-3075

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Attachment 4

Cover Page

Notes from

324 Building Deactivation Brainstorming Workshop Session

Hanford Training Center, Richland, Washington

January 23, 1997

324 Building Deactivation Brainstorming Session Notes
Hanford Training Center
January 23, 1997

Present:

Ernest J. Bitten	Gregory J. LeBaron
Bruce C. Cornwell	Dennis D. Leitch
Edwin N. Dodd	Mike J. Moran Jr
Thomas N. Draper	William A. Peiffer
Robin A. Duncan	Andrea L. Prignano
Mark B. Enghusen	David E. Rasmussen
Robert A. Gregonis	Larry D. Romine
Thomas W. Halverson	Fred A. Ruck
David O. Jenkins	Louis D. Stefanski
Steven D. Landsman	Michael J. Stephenson
David C. Langstaff	Jeanne J. Wallace
	Patrick J. Weaver

The various participants introduced themselves and Mal Wright kicked off the session emphasizing the need to be open and honest. Mal indicated that this is an important step in developing the plans for deactivation.

Performance Measures - measures or criteria to be used by the decision makers and in the follow-on trade studies for selecting deactivation alternatives and end points:

Cost	Environmental
Schedule impacts	Technical maturity
Operability (implementable)	Complexity of interfaces
Maintainability	Risk
Safety	Project values

Project Values - project values to be considered in identifying alternatives and selecting methods to be used during the 324 Building deactivation. These are values that need to be considered and do not necessarily relate to technical activities. However, end points should support the various values.

- Protect the Columbia River
- Realistically manage and preclude ground water contamination
- Do no harm during cleanup or with new development
- Clean up areas of high future use value
- Cleanup to the level necessary to enable the future use options can occur
- Use the central plateau wisely for waste management
- Protect the environment
- Protect public/worker health and safety
- Involve the public in future decisions about the Hanford Site
- Enhance public awareness and acceptance
- Protect rights of Native American Indians
- Establish management practices that ensure accountability efficiency and allocation of funds to high priority items (consider risk and mortgage reduction)

Use a systems approach that keeps end points in mind as intermediate decisions are made
 Ensure compliance with applicable regulations and requirements
 Link economic development opportunities locally
 Enhance technology development but do not rely on unproven technology
 Leverage use of existing technologies (evaluate commercial technologies, improve existing technologies, etc.)
 Use innovative processes
 Optimize use of funds (do more for less)
 Manage waste effectively (waste handling, packaging, shipping, transport waste safely and be prepared, etc.)
 Implement pollution prevention (maximize the recycle of materials and equipment and minimize waste)
 Use open and fair processes
 Seek creative and innovative solutions in all areas

Discuss final building end state (type of closure)

RCRA Closure The RCRA closure options are: 1) clean close, 2) land fill or 3) modified closure.

If a clean closure is performed, we can walk away from the facility with no follow-on actions. Any other type of closure requires environmental and ground water monitoring. The objective is to clean close the 324 Building. A modified closure could allow closure of the building but delay an assessment and closure of the soils. If the facility were stabilized and a closure state, clean closure or land fill, was not achieved, the site would not be in compliance with the regulations and the TPA agreement.

Currently, there is a definite concept for cleaning B-cell; remove the equipment and materials from the cell and examine the liner to determine the liner integrity. If the liner is intact, B-cell and the soils beneath it will be considered clean closed. However, a method for conducting the integrity test and what sampling, if any, is required to demonstrate the cell is clean closed needs to be agreed upon with Ecology (follow-on action).

Pipe lines, including lines ancillary to the high level vault (HLV), need to be closed. A method for closing the lines need to be agreed upon with Ecology (follow-on action).

Radiological Closure Radiological closure categories include: 1) building stabilization (hazard category III), 2) radiological, and 3) industrial.

To become less than a hazard category 3 facility, it is necessary to have less than 8.4 grams of Pu, less than 0.12 grams of Sr and less than 0.69 grams of Cs. It would be possible to segregate the facility so the different areas have less than the identified amounts. However, that would require that the segregated areas be isolated so there is no communication between the areas. It is also possible to fix the contamination to reduce the releasable portion of the contamination. However, at some time, decontamination of the facility will have to be achieved at some point. If not done during deactivation, it will have to be done during D&D. It is necessary to take life cycle costs into account.

Systems Closure options include 1) passive (no active systems), and 2) some active systems (ie HVAC).

Areas of Concern

RCRA Areas Areas are: 1) B-Cell, 2) D-Cell, 3) high level vault (HLV), 4) low level vault (LLV), 5) associated piping, and 6) soil and ground water.

Radioactive Areas Areas are: 1) radiochemical engineering cell (REC) and associated piping including room 146, 2) shielded materials facilities (SMF) area and associated piping including the 3X rooms in the basement, 3) HLV, 4) LLV, 5) gaseous discharges, filters and ductwork, 6) radioactive liquid waste (RLW) systems and 7) balance of building.

System Areas Areas are: 1) gaseous discharges, filters and ductwork, 2) radioactive liquid waste (RLW) systems, 3) other chemical equipment and materials, 4) waste management, 5) ancillary buildings, 6) miscellaneous cold labs, maintenance shops, administrative areas, storage vault, etc., and 7) utility systems.

Alternatives for Deactivation

It is necessary to have a radionuclide inventory of the areas to make a safety evaluation of what needs to be done for deactivation (follow-on action).

HLV The DOE Strategic Plan calls for the facilities in the 300 areas to be reused or removed.

Assume clean closure - There are two options: 1) remove the vessels and the piping, or 2) remove the residues from the vessels and the piping. In either case, the secondary containment will have to be closed and the method for this will have to be negotiated with Ecology (follow-on action).

Remove the tanks and piping from the vault

People were in the vaults in 1977

If removed, it may not be necessary to dispose of the materials as dangerous waste

It may or may not be necessary to flush to reduce contamination before removal:

Remove the tanks whole

Cut up the vessels

Cut vessels and shred/melt/char the pieces

Remove the residues by flushing/cleaning the vessels. To clean close, it is necessary to clean to MTCA residential levels or clean to a visibility clean surface.

Meet the debris standards (ie. sand blasting, water blasting, etc.).

This is desirable because it would not be necessary to negotiate with Ecology.

If flushes are performed, it is necessary to dispose of the flush solutions and negotiate the end point criteria with Ecology.

Requires a statistical sample (90% confidence)

Chemical flushing maybe conducted to remove sufficient radionuclides to permit manned entries

Assume land fill:

- Stabilize the material by grouting the waste in the vessels/in the vault
- Land fill would not meet the TPA expectation
- Land fill would require negotiations with Ecology

The planning case will be to remove the vessels and piping from the cell. The same will be done for the LLV. The objective of the trade study will be to evaluate the planning case versus leaving the vessels in place and removing the dangerous waste residuals (follow-on action). Since it has been determined in the TPA that the facility will be clean closed, the land fill option will not be considered.

Piping

- Wire brush/honing the interior of the pipes. Would still need to verify that the piping is clean via an agreement with Ecology
- Perform chemical flushing and sample rinsate to show the dangerous waste residues have been removed
- Use a water blaster or some other type of technology. Would still need to verify that the piping is clean via an agreement with Ecology
- Meet the debris standards. This would not require any negotiations with Ecology.
- Remove exposed piping and pull buried (buried in concrete) piping
- Remove exposed piping and cap ends of buried piping. Would still need to verify that the buried piping is clean via an agreement with Ecology

Need to identify, pipe-by-pipe, all the pipes that need to be closed (follow-on action). If the vessels, piping, etc. are removed, there is no need to negotiate end point criteria with Ecology and there is no need for sampling other than to designate the waste.

The planning case will be to remove the exposed piping and to cap the ends of the buried piping. The objective of the trade study will be to evaluate the planning alternative with the other alternatives to verify the planning alternative (follow-on action).

B-Cell

In the fifth DQO meeting with Ecology, different methods for conducting the integrity assessment of the liner was discussed. The applicable methods considered include:

- Visual
- Liquid penetrants
- Ultrasonic
- Eddy current

Liquid penetrants was not considered feasible. Other methods were considered but they were not considered either applicable or feasible. A study evaluating the options has already been prepared. However, a method to

perform the integrity test was not agreed upon with Ecology at the DQO meeting (follow-on action).

HVAC

The objective is no active HVAC system. To shut down the fan, need to determine the dose consequences and need to evaluate the consequence of contamination during subsequent activities in the building (follow-on action). There are three options: 1) remove the material, or 2) remove material and fix any remaining material. The other alternative is to leave the system active. If any fan were left operational, it would be the zone #1 exhaust fan.

There are four ventilation systems with the #1 system being the highest contamination area, ventilating the process cells. The #2 system vents the contaminated areas surrounding the cells. The #3 system vents the clean labs and the administrative areas. The #4 vents are the vents directly to the atmosphere (ie. roof vents).

The duct work is the only area that a person, with effort, cannot access to decontaminate. However, once the cells are cleaned, people could go into the ventilation tunnels to decontaminate or fix material. There is little characterization of the material in the ventilation system.

To develop an end point, it is necessary to look at the quantity of dispersible materials, below which, a ventilation system is not required. Samples would have to be taken to determine the amount of material at risk. Materials present can be fixed to reduce the amount of materials at risk. To characterize the amount of radionuclides, it is necessary to look at Sr, Cs, Am and Pu. Samples near the source and near the input to the filters would represent or bound the amount of radionuclides in the ventilation system. Segmentation can occur only if there is seismically qualified isolation. The REC and SMF are connected through the ventilation duct work.

It was decided that determining the end state of the HVAC system is highly dependent on the end states of the other areas. Also, it is not critical to identify the end state of the HVAC at this point because there is only about 70 feet of duct between the most contaminate source, B cell, and the filter.

The planning case will be to shut off all ventilation to the facility for deactivation and a trade study will be prepared to validate the assumption. The objective of a HVAC trade study would be to compare the facility inventory categories after deactivation versus what is there now (location and form) versus what it would take to get to the other categories (follow-on action). Methods would have to be remote, minimize exposure to personnel during implementation, use non-hazardous constituents, optimize the ratio of the volume of waste generated to cost of disposal, leverage use of existing technologies (commercial technologies), etc.

Follow-on Actions

- Prepare statements of work for the trade studies - Bill Peiffer (end January)
 - Remove the vessels versus remove the residuals from the vessels in the HLV and the LLV and compare options with the planning case
 - Remove the piping versus remove the residuals from the piping associated with the HLV and the LLV vessels and compare options with the planning case
 - Compare the facility inventory categories after deactivation versus what is there now (location and form) versus what it would take to get to the other categories to determine the final HVAC end state
- Initiate trade studies - Mal Wright and a 324 Building lead with support of Bill Peiffer
- Continue developing the Closure Plan - Andrea Prignano
- Continue developing end points - Lou Stefanski

- Identify, pipe-by-pipe, all the pipes required to be closed
- Develop a radionuclide inventory around the facility so a safety analysis can be performed
- A method for conducting the integrity test of the B-Cell liner needs to be identified and agreed upon with Ecology
- A method for closing pipe lines needs to be identified and agreed upon with Ecology
- Unless the vessels are removed, a method for closing the vessels in the HLV and LLV needs to be identified and agreed upon with Ecology.
- A method for closing the secondary containment (vaults) will have to be identified and agreed upon with Ecology.

Attachment 5

324 Sodium Removal Pilot Plant
Public Involvement Plan
Version February 5, 1997

30-45-Day Advance Notice Hanford Happenings	Feb. 10
Draft Focus Sheet First Review	Done Done
Draft Display Ad First Review Return Comments	Feb. 7 Feb. 7 Feb. 10
Finalize Focus and Ad	Feb. 10
Final Focus and Ad Review (Tilden, Mattlin, Jarvis, Mcattee, Davis, and other staff) Comments Due	Feb. 11 Feb. 14
Final Final Focus and Ad	Feb. 18
48-Hour Review by TPA PIOs	Feb. 18-20
Place Ad in Tri-City Herald (run dates March 9 and 12)	March 5
Mail Focus Sheet to Highly Interested List (in mail March 3)	Feb. 26
Article in Hanford Update	April 7
Hanford Happenings	Feb. 10 issue
Start 45-Day Public Comment Period	March 12
End Public Comment Period	April 28
Start 30-Day Response Period	April 29
End 30-Day Response Period	May 29

Distribution:

R. C. Bowman	RFSH	H6-24
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R. X. Gonzalez	RL	R3-79
G. P. Davis	Ecology	B5-18
D. C. Langstaff	RL	R3-79
G. J. LeBaron	BWHC	S6-19
E. M. Mattlin	RL	A5-15
S. M. Price	FDH	H6-23
A. L. Prignano	RFSH	H6-24
D. E. Rasmussen	BWHC	N1-47
L. A. Romine	RL	R3-79
J. J. Wallace	Ecology	B5-18
P. J. Weaver	BWHC	L1-02
M. S. Wright	BWHC	L1-02
RCRA Files/JM	BWHC	H6-23

ADMINISTRATIVE RECORD (two copies): 324 REC/HLV Closure Plan, S-3-4
 {Care of EDMC, BWHC (H6-08)}

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