Meeting Minutes Transmittal

324 REC/HLV CLOSURE PLAN
Project Managers Meeting
Ecology - Kennewick Office
Room 8
Kennewick, Washington

January 11, 1996
1:00 p.m. to 2:00 p.m.

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

C R DeLannoy Date: 3/7/96
Charles R. Delannoy, Project Manager, RL

Jeanne J. Wallace Date: 3/7/96
Jeanne J. Wallace, Project Manager, Washington State Department of Ecology

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324 REC/HLV Closure Plan, PNL Concurrence

Michael H. Schlender Date: 3/7/96
Michael H. Schlender, Contractor Representative, PNL

Purpose: Discuss Permitting Process

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

Attachment 1 - Agenda
Attachment 2 - Summary of Discussion and Commitments/Agreements
Attachment 3 - Attendance List
Attachment 4 - Action Items
Attachment 5 - Rough DRAFT Comments on Closure Plan
Attachment 6 - Status of DQO Process for Closure Plan Sampling Plan and Analysis
Attachment 7 - cc:mail Message Regarding Shipments to PUREX
Attachment 8 - cc:mail Message Regarding HLV Sump

Attachment 1

324 REC/HLV
Project Managers Meeting
Ecology Kennewick Office, Room 8
Kennewick, Washington

January 11, 1996
1:00 p.m. to 2:00 p.m.

Agenda

1. Approval of Past Meeting Minutes (Ecology/RL/PNNL)
2. Status of 324 REC/HLV Closure Plan (Ecology)
3. Status of DQO Process for Closure Plan Sampling and Analysis (PNNL)
4. PUREX Notice of Construction to Receive REC Wastes (PNNL/RL)
5. Path Forward for Inventory Removal of HLV Tanks (PNNL/RL)
6. Status on Condition d) Establish monitoring and reporting procedures (PNNL/RL/Ecology)
7. Status of Project Management Plan/Feasibility Study Report Comment Summaries (RL/PNNL)
8. Status on M-33 (M-90)(PNNL/RL)
9. Status on HLV Sump (PNNL/RL)
10. Status on funding for 324 activities (RL/PNNL)
11. Status of Action Items

    11-08-95: 1 — Preparation of Integrated Schedule for PNL Units
    ACTION:M. Schlender (PNNL)
    OPEN

    11-08-95: 3 — Obtain status of findings/actions re:DNFSB visit
    ACTION: P. Weaver (PNNL)
    OPEN

    12-07-95: 1 — Ecology Notification Letter Concerning REC Waste Shipments
    ACTION: M. Vargas (RL)
    CLOSED

    12-07-95: 2 — 324 REC/HLV tracking number for the Administrative Record
    ACTION: B. Delannoy (RL)
    OPEN

12. General Discussion (Ecology/RL/PNL)
13. New Action Items
14. Next Project Managers Meeting (Ecology/RL/PNL)
    - Next meeting February 1, 1996
      337 Building, Mt. Hood
    - Proposed topics

Attachment 2

324 REC/HLV
Project Managers Meeting
Ecology Kennewick Office, Room 8
Kennewick, Washington

January 11, 1996
1:00 p.m. to 2:00 p.m.

Summary of Discussion and Commitments/Agreements

1. **Approval of Past Meeting Minutes:** The minutes of the December 7, 1995 PMM were reviewed and approved by Ecology and RL Project Managers.

2. **Status of the REC/HLV Closure Plan:** J. Wallace, Ecology provided a ROUGH DRAFT of preliminary comments on the 324 REC/HLV Closure Plan from various Ecology staff reviewing the document (Attachment 5). She will try to complete her review of the plan by January 31, 1996.

3. **Status of DQO Process for Closure Plan Sampling and Analysis:** T. Hosaka, PNNL, submitted a written status report (Attachment 6). T. Hosaka, PNNL, stated: Ecology received the closure plan on December 22, 1995 and is scheduled to complete the preliminary review before the DQO process starts on January 31, 1966. Three DQO meetings are planned but may need up to four to complete the process. It is hoped that these meetings will be completed in the March time frame. Once the meetings are completed and there is a signed DQO document, PNNL will proceed with revision of the closure plan.

   The chief editor of the closure plan will attend the DQO meetings to begin a parallel effort of revising the plan as DQO issues get resolved. This should reduce the lag time once the DQO is completed before the revised closure plan is submitted. The revised closure plan would become the basis for workshop reviews and finalization. The end of the DQO process and submittal of the revised closure plan is preliminarily planned for the second quarter of '96 but this may change depending on the DQO process.

   C. DeLannoy, RL, asked if it would be possible to give everyone an idea as to the approximate time frames when the DQO meetings would be held and what was expected to be completed at the end of each meeting. T. Hoska, PNNL, stated that at the first DQO meeting this would be an agenda item along with explanations about the DQO meetings, who is going to be involved, their responsibilities, what needs to be brought to the next meeting, etc. M. Miller will be facilitating the DQO process and will monitor the meetings to make sure everything is progressing as it should.

M. Miller will be talking with each participant and explain to them what their roles and responsibilities are. At the first meeting she will explain the process, getting the problem defined and then moving forward with resolving the problem (ex. boundaries). The second meeting will be this and this..the third meeting will be this and this... and then the fourth meeting will be left open.

M. Schlender, PNNL, provided J. Wallace (Ecology), C. DeLannoy (RL), T. Hosaka (PNNL), and D. Lutter (PNNL) with an integrated schedule which listed dates based on T. Hosaka's preliminary schedule and a one week time lag. The dates will need to be reaffirmed with the participants. The main thing is that the participants attend the meetings and come prepared to make decisions.

4. **PUREX Notice of Construction to receive REC wastes:** D. Lutter provided a cc:mail message from Pat Weaver for the record since he could not be present at this meeting (Attachment 7) and reported that January 15, 1996 or 22nd the shipment to PUREX will go out, all approvals were in place, modifications were made to a cask, and DOE-RL approval was all that was needed before the wastes could be shipped. This is the third shipment and the first mixed waste shipment. C. DeLannoy, RL, asked if the third shipment was the one with the filters. G. Sevigny, PNNL, said he was sure the third shipment was the first mixed waste shipment and thought it was the filters. The other two were not mixed waste. The shipments are estimated to be on schedule.

   C. DeLannoy, RL, added that M. Vargas, RL, had been working with Jim Mecca on approval to send the glass logs that are in the bottom of B-Cell to PUREX. These were included in the initial Washington Department of Health assessment and they are included in the permit, NOC, and everything else.

5. **Path forward for inventory removal of HLV Tanks: G. Sevigny reported: PNNL got approval at the last PMM from DOE-RL and Ecology to proceed, permits were out, and the equipment should come in next month, February, except for a couple of long lead time items before assembly. PNNL is doing all the procedures plus checking out the existing jet stations and transfer stations between the tanks and up to B-Cell Tank 112 so a sample can be taken before actual processing to allow some time for analysis.**

   C. DeLannoy, RL, questioned if a review of the need for taking a sample was considered. G. Sevigny, PNNL, said a sample would be taken but what analysis to run is the issue. An extensive analysis probably isn't justified. C. DeLannoy, RL, commented that process knowledge is pretty good on contents of the tank.

J. Wallace, Ecology, wanted some verification sampling because only process knowledge was being used. G. Sevigny, PNNL, provided information that samples of the tank contents had been conducted in 1986 and 1990. The analysis was not everything you analyze for but that the analysis was fairly complete. One tank was sampled and partial analysis was done to verify it was similar to the other tank, the analysis indicated they should be the same, J. Wallace, Ecology, wanted to pass this by one of Ecology's Chemists to make sure that assumption was kosher and to avoid any problems later.

G. Sevigny, PNNL, went on to say that right now PNNL is proceeding with getting set up to take the sample. Transfer of the solutions to B-Cell for sample collection will be by using existing transfer stations so it will end up being a mini-assessment for DOE to use for approval of the process transfers plus to make sure the layout is good and the equipment is in good shape.

J. Wallace, Ecology, asked G. Sevigny, PNNL, if he had been involved with the Department of Health or the Air people. G. Sevigny, PNNL, reported that originally back in September, G. Simiele, PNNL, had met with the Department of Health to talk about the NOC for processing operations. G. Simiele had presented the information and asked he had asked for approval to proceed. M. Schlender, PNNL, said PNNL is aware that an NOC will need to be in place and activities are being carried out to do that at this time. B. Day, PNNL, provided additional information regarding a meeting G. Simiele, PNNL, had with A. Conklin, Washington Department of Health (WDOH), where G. Simiele explained the process and A. Conklin had given verbal approval to go ahead and get the equipment ready, etc. G. Sevigny, PNNL, stated that what WDOH told PNNL was that PNNL didn't have the approval to go ahead with processing the liquid but that it was O.K. to go ahead and assemble and install the equipment. B. Day, PNNL, in other words, the NOC is in the works.

G. Sevigny, PNNL, went on to say that PNNL was working on the procedures Ecology had requested in their letter approving the processing of liquids from the HLV Tanks.

6. **Status on Condition d) Establish monitoring and reporting procedures:** G. Sevigny, PNNL, summarized that there were four items, three of which were pretty well drafted, and the monitoring and reporting procedure. PNNL is looking to Ecology to finalized what will meet their needs. J. Wallace, Ecology, said she would set up a meeting with herself, an Ecology Chemist, and P. Weaver and G. Sevigny, both PNNL, to sit down and clarify what Ecology's expectations are.

7. **Status of Project Management Plan/Feasibility Study Report Comment Summaries:** C. DeLannoy, RL, reported that he had not seen either of the two packages and that he would check on this for the next PMM.

8. **Status on M-33 (M-90):** H. Tilden, PNNL, updated everyone on the December 31st Tri-Party Agreement (TPA) milestone to submit a package of new milestones dealing with various waste issues, radioactive waste forms at Hanford. The Milestone was met by submittal on the 29th of a signed change package by DOE to Ecology and EPA. Ecology has been reviewing it and negotiations are set to start on January 25, 1996.

   J. Wallace, Ecology, asked what exactly are they negotiating. H. Tilden, PNNL, provided that the negotiations are going to deal with items in the change package and what the ultimate milestones will be. The change package has been signed only by DOE and it is the kickoff point for negotiations to determine what the actual milestones and time frames will be. There are a lot of TBD Milestone due dates in the current package along with a lot of target milestones.

   J. Wallace, Ecology, asked if H. Tilden, PNNL, knew who was Ecology's lead and if he could speculate on how the 300 Area or PNNL's facilities would be impacted. H. Tilden, PNNL, thought Moses was the lead for Ecology and the current negotiation agenda calls for LMD to take the lead in negotiating that portion of the M-90 milestone package, which deals with 300 Area waste. He would expect J. Wallace, Ecology, would be consulted or asked to participate in that phase of the negotiations. The change package is pretty well broken down into classes of milestones because they all deal with different types of waste forms. The 300 Area ones have been pushed off to the side as one category waste forms so there will be some 300 Area specific negotiations as well as some generic ones dealing with site wide waste forms. C. DeLannoy, RL, stated that M. Vargas, RL, will be participating in those negotiations.

9. **Status on HLV sump:** D. Lutter, PNNL, provided a cc:mail message from Pat Weaver, PNNL, for the record. There were no liquids in the sump. No more discussion was needed.

10. **Status on funding for the 324 activities:** M. Schlender, PNNL, stated that nothing had changed.

11. **Status of Action** Items:

    11-08-95:1 Preparation of integrated schedule for PNL Units.

    CLOSED. M. Schlender provided a limited distribution integrated schedule at this PMM. It is a workload planning tool and intended for inclusion in the PMM minutes.

    11-08-95:3 Obtain status of findings/actions re:DNFSB visit.
    CLOSED. Item addressed on cc:mail message from P. Weaver at this PMM.

12-07-95:1 Ecology notification letter concerning REC waste. CLOSED. M. Vargas, RL, had confirmed this letter went out November 14, 1995.

12-07-95:2 324 REC/HLV tracking number for the Administrative Record. CLOSED. H. Tilden, PNNL, provided a TPA type number and explained his reasoning. D. Lutter, PNNL, had verified with D. Isom, Administrative Record, that it was available and appropriate to use. The number has been added to these PMM minutes.

12. **General Discussion:** T. Hosaka, PNNL, and J. Wallace, Ecology, discussed Ecology's preparation of comments on the closure plan, using the comments for basis of DQO process, and a second review cycle as opposed to going through two rounds of NODs. J. Wallace, Ecology, wanted a copy of the PMP and FS comment response summaries before a final decision was made. More than likely this will be brought to the DQO process of discussion. C. DeLannoy, RL, approved the submittal of DRAFT responses to the PMP and Feasibility Study to Ecology in an effort to get these to Ecology prior to the DQO process with RL to follow up with the final response summaries fairly quickly. D. Lutter, PNNL, agreed to hand deliver them the following day, January 12, 1996.

13. **New Action Items:**

01-11-96:1 Meet to discuss Ecology expectations for monitoring and reporting procedures associated with the processing of HLV Tanks liquids.
ACTION: J. Wallace (Ecology)/ P. Weaver and G. Sevigny (PNNL)

01-11-96:2 Check with Ecology Chemist regarding the 1989 and 1990 analysis of HLV Tanks. ACTION: J. Wallace (Ecology)

01-11-96:3 Delivery of DRAFT PMP and FS response summaries. ACTION: D. Lutter (PNNL)

01-11-96:4 Status of Project Management Plan and Feasibility Study Comment Response Summaries.
ACTION: C. DeLannoy (RL)

14. **Next PMM Meeting:**
February 1, 1996
Mt. Hood, 337 Building, 2nd Floor
Richland, Washington

Proposed Topics: None.

Attachment 3

324 REC/HLV Closure Plan
Project Managers Meeting
Ecology Kennewick Office, Room 8
Kennewick, Washington

January 11, 1996
1:00 p.m. to 2:00 p.m.

Attendance List

Name	Organization	Phone Number
Herbert F. Sutter	PNL - EC	376-5631
Terry Hoska	PNL - EC	372-6502
Gary Sevigny	PNL - EC	376-0395
Joanne Wallace	Ecology	736-3019
Bob DeLannoy	DOE	373-9017
Brian J. Day	PNL - EC	376-3835
Michael Schlender	PNNL	376-8795
Harold Tilden	PNNL	376-0499

Attachment 4

324 REC/HLV
Project Managers Meeting
Ecology - Kennewick Office, Room 8
Richland, Washington

January 11, 1996
1:00 p.m. to 2:00 p.m.

Action Items

Action Item #	Description
11-08-95:1	Preparation of Integrated Schedule for PNNL Units Action: M. Schlender (PNNL) CLOSED 1/11/96
11-08-95:3	Obtain status of findings/actions re:DNFSB visit ACTION: P. Weaver (PNNL) CLOSED 1/11/96
12-07-95:1	Status of Ecology notification letter concerning REC Waste Shipments (dispersibles) ACTION: M. Vargas (RL) CLOSED 11/14/95
12-07-95:2	324 REC/HLV tracking number for Administrative Record ACTION: B. Delannoy (RL) CLOSED 1/11/96
12-07-95:3	Move "New Action Items" after "General Discussion" ACTION: D. Lutter (PNNL) CLOSED 1/11/96
01-11-96:1	Meet to discuss Ecology expectations for monitoring and reporting procedures associated with the processing of HLV Tank liquids. ACTION: J. Wallace (Ecology)/ P. Weaver and G. Sevigny (PNNL)
01-11-96:2	Check with Ecology Chemist regarding the 1989 and 1990 Analysis of HLV Tanks. ACTION: J. Wallace (Ecology)
01-11-96:3	Delivery of DRAFT PMP and FS comment response summaries. ACTION: D. Lutter (PNNL)
01-11-96:4	Status of PMP and FS comment response summaries transmittal to Ecology. ACTION: C. DeLannoy (RL)

Attachment 5

324 REC/HLV CLOSURE PLAN
Project Managers Meeting
Ecology - Kennewick Office, Room 8
Kennewick, Washington

January 11, 1996
1:00 p.m. to 2:00 p.m.

Rough DRAFT Comments on Closure Plan

DRAFT
4/11/96 PMM

324 Building REC and HLV Tank Closure Plan
(M-20-55 Submit closure plan for Non-Permitted Mixed Waste Units
located in the 324 Building REC B-Cell, D-Cell and HLV)
Submitted December 22, 1995 Review due
Department of Ecology Notice of Deficiency
January 1996

State Environmental Checklist is not included WAC 197-11-960.

Format and terminology not consistent with standard Hanford closure plan format.

Does not describe the Hanford Site (one id number WA890008967).

Omits discussion of DOE/PNNL owner operator relationship. The executive summary only refers to the U.S. Army Corps of Engineers which could be interpreted as the owner/operator of this unit/facility.

Fails to address why this closure is being handled independently and uniquely from the Hanford Site Permit.

Part A not available for review because unit is a non-compliant TSD.
*****

Chapter 1.0, Introduction

Does not address operational or permitting/compliance history specific to the unit being closure.

Does not describe the Hanford Site (one id number WA890008967).

Omits discussion of DOE/PNNL owner operator relationship.

Fails to address why this closure is being handled independently and uniquely from the Hanford Site Permit.

Fails to address lack of interim status/Part A.

Page 1-1, line 4. The 324 REC (especially) and HLV have not been distinguished from the rest of the 324 Building, or the rest of the REC. The units relationship to the rest of the Hanford Site has not been presented.

Page 1-1, lines 7. Specify which B-Cell Safety Cleanout Project (BCCP) plans. Only one was submitted for regulatory review.

Page 1-1, lines 4-23. It is not appropriate for the closure plan to rely on referenced documents for completeness. The referenced documents (B-Cell Safety Cleanout Project (BCCP) plans, the 324 Building REC HLV Interim Waste Management Plan (IWMP), the Project Management Plan for Nuclear Facilities Management 300 Area Compliance Program, land the 324 High Level Vault Interim Removal Action Project (project management plan (PMP)) were submitted to fulfill TPA milestones associated with an Ecology compliance action again the facility. The milestones were proposed to minimize risk, to achieve compliant management of waste, and to ensure long term protection of human health and the environment. The documents do not circumvent the requirement to fulfill WAC 173-303-610(3). Please revise to incorporate applicable information into the closure plan. The following is provided as guidance.

The documents were not processed in accordance with ...
therefore cannot fulfill the requirements

The closure plan must fulfill WAC 303-840 Procedures for decision making. In this, case the closure plan is managed analogous to the permit referred to in this regulation.
The department must assure the approved closure plan is consistent with WAC 173-303-610 (2), (3), (4), (5), and (6), and requirements specific to the type of unit. In order to make this determination the following information is required by WAC 173-303-610(3). The closure plan must at least:

- The closure plan must identify steps necessary to perform partial and or final closure of the facility at any point during its active life,
- description of how each dangerous waste management unit will be closure in accordance with WAC 173-303-610(2)
- maximum extent of operation,
- maximum inventory,
- detailed description of the methods for removing, transporting, treating, storing, or disposing of all dangerous wastes, and identification of the off-site dangerous waste management units to be used, etc.,
- detailed description of the steps needed to remove or decontaminate all dangerous waste residues and contaminated containment streams components, equipment, structures, and soils during partial and final closure, ...
- detailed description of other activities necessary to satisfy the closure performance standards, and
- a schedule for closure.

Page 1-1, line 25. The 324 REC (especially) and HLV have not been distinguished from the rest of the 324 Building, or the rest of the REC. It has not been demonstrated that the other hot cells of the REC and airlock are not part of the unit. Revise closure plan accordingly

Page 1-1, line 31. Tank 106 is subject to closure until it is demonstrated to the departments satisfaction that the tank never managed waste. In addition, the plan fails to address the containment system or ancillary equipment of the HLV tanks. Revise closure plan accordingly.

********** **********

Chapter 2.0, Facility Description and General Provisions

Page 2-1, line 43. The terminology used in this section is so laden with industry specific jargon it has little meaning to the non-health physicist. The term "technical studies" is so vague it is meaningless. Specify if such studies involve waste regulation by the Dangerous Waste Regulations. Other vague or unquantified terms include natural background, full-process levels, basic and applied data, serious safety and environmental incidents. Please include a definition/description into the closure plan.

Page 2-2, line 1. Please provide a copy of the Hanford Plant Standard Criteria 4.1 Revision 2, 1959.

Page 2-2, line 15. Explain how the aqueous and solid radioactive and hazardous materials were managed regulatorially. What regulations were imposed on this material.

Page 2-2, line 21. Describe the entire REC complex boundary. Present logic for not including the entire complex in the unit for closure, addressing each component individually. In developing the logic for defining the boundary of the unit consult WAC 173-303-610 (3)(a)(ii), (iii) and (v), 173-303-610(5) and 173-303-640.

Page 2-2, line 23. The figures do not clearly delineate the REC complex from the rest of the 324 Building, or a proposed boundary of the unit to be closed from the complex. A legend would also be helpful. Please revise figures or provide additional figures for clarity.

Please include a definition/description into the closure plan. Please describe/explain electrostatic precipitator, high-efficiency particulate air (HEPA) filter, high-dose of ionizing radiation, present radioactive material inventory.

Explain, either here or reference other section of plan, the relationship and history of the BCCP to the closure of the unit.
This section fails to address the relationship and/or regulatory distinction of the airlock and hot cells A and C from those portions of the REC addressed for closure. this section provides information necessary to establish the boundary of the unit to be closed. A complete regulatory history of the entire complex would be a good first step.

Page 2-2, line 37. Specify regulations applicable to air emissions from the REC and explain briefly how such regulations are fulfilled, including RCRA Air Emission regulations (40 CFR 265 Subpart AA, BB, and CC).

Page 2-3. The closure plan fails to describe A Cell or the rationale for omitting it from closure.

Page 2-3, line 9. If process knowledge is to be used to limit constituents to be analyzed then detailed process descriptions must be provided. The process history must include all activities conducted in the unit.

Page 2-3, line 9. Define "high activity", "highly contaminated", cell waste, and radioactive material.

Page 2-3, line 14. Describe potential accident scenarios which could lead to a release of materials contained in B Cell.

Page 2-3, line 19. Describe methods to be implemented to verify that underlying soils have not been impacted **********

Page 2-3, line . The description of B Cell as presented implies that the operating galleries and sample hood is to be part of B Cell closure. Please clarify and provide logic.

Page 2-3, line 32. Provide the alarm levels of the sump alarm in B Cell and explain how liquid is removed from the sump, designated and disposed.

Page 2-3, line 35. Provide a list and detailed description of ANY occurrence in which negative pressure was not maintained in the cell. Discuss the potential to bring contamination into the cell via the ventilation inlets and service penetrations.

Page 2-3, line 42. Specify regulations applicable to air emissions from the REC and explain briefly how such regulations are fulfilled, including RCRA Air Emission regulations (40 CFR 265 Subpart AA, BB, and CC).

Page 2-4. The closure plan fails to describe C Cell or the rationale for omitting it from closure.

Page 2-4, line 1. Provide the operational history of D Cell. Explain if, or how, C and D Cell are connected or separated. Describe any effluents or emissions which can exit D Cell.

Page 2-4. This section fails to address how the hot cell are connected, separated, common utilities, ancillary equipment and how stuff moves into and out of the cells. *******Develop more*****

Draft 1/11/96 PMM

January 9, 1996

To: Jeanne Wallace

From: Pat Svoboda

Subject: Comments on 324 Building REC and HLV Closure Plan

The following are my comments as a Kennewick Compliance Team member on the 324 Building Closure Plan. I appreciate being provided the opportunity to work with you as my knowledge on these issues increases. The comments listed directly below are separated by regulatory cocnerns and specific comments. There will likely be overlap in the comments.

Regulatory Concerns

1. Does not have language to return land to prvious appearance WAC 173-3030610(2)(a)(iii)
2. Does not reference MTCA cleanup levels WAC 173-303-610(2)(b)(i)
3. Does not address how equipement will be closed WAC 173-303-610(3)(a)(ii)
4. Verification if the actual volumes are the maximum inventory ever on-site of the **active** life of the facility. WAC 173-303-610(3)(a)(iii)
5. Does not provide detail on methods used for treating dangerous wastes including mixed wastes WAC 173-303-610(3)(a)(iv)
6. Does not address management of equipment used for closure WAC 173-303-610(3)(v)
7. Does not address the pipes, if they will be closed or not and how they will be managed WAC 173-303-610(3)(v)
8. Inadquate time schedules. Does not have specific time schedules for anticipated closure activities WAC 173-303-610(3)(vii)

2.3.1 General Description of the REC Complex

1. Provide ranges of ionizing radiation in the present radioactive material inventory . The plan sates that all normal operations in the REC's are performed remotely due to the high dose rate of ionizing radiation. 2.3.1 lines 41-43.
2. List the remote equipment in detail used in the operations. Are there more than one? If so list them with the function they provide.
3. State the future use of the equipment . Will the remote equipment be closed or reused?

2.3.2 Description of B-Cell

1. Designate all the materials. The B-cell only has mixed waste and dispersible radioactivity. Were other materials present? If yes which ones and how will the wastes be managed? If no, what process was used for verification?
2. When will the dispersible radioactivity be removed or containerized?
3. Under what process will the dispersible radioactivity be removed or containerized?
4. Has wastes accumulated in the B-Cell?

Are the HEPA filters included in the closure? Is so, they will need to be designated and managed accordingly.

2.4.1 Tank: 104

1. . When did the hydrostatic test occur?
2. When did the leak test occur?

2.4.2 Tank 105

1. When did the hydrostatic test occur?

Draft

2. When did the leak test occur?

2.4.3 Tank 107

1. Why was the tank subject to dye-penetration testing and not leak testing and hydrostatic testing like the other tanks? This is a question of concern considering that wastes from Tank 107 can be transferred to Tank 104 and the B-cell tanks.
2. Was solution ever transferred from Tank 107 to Tank 104? If yes, please provide quantities, dates, and types of solutions.

2.4.4 Ancillary Equipment

1. Have the pipes been recently tests for integrity and pressure? Testing was great in 1965. If the pipes are going to be used for closure, recent testing or validation of integrity and pressure is needed.

3.1.1 Waste Solidification Engineering Prototypes

1. Do real or estimated quantities of waste exist by tank and process. Please provide individual waste quantities generated annually and collectively.

3.1.3 Fabrication of Cesium and Strontium Heat and Radiation Sources Program (FRG Program)

1. Was there any bv-product in the production of heat sources? If yes, individually list the amounts by source and how they were managed.

3.1.4 Present Conditions

1. What solutions are contained in the vault tanks? Please list quantities by solution and in which tank.

4.1.1 REC Waste Inventory and Characteristics

1. What was the estimated amounts of the 1986 spill? Was the spill remediated or contained? Please describe actions taken to contain and remediate the spill. Where was the waste sent upon remediation?
2. Are these current quantities in Table 4.1. Please provide a historical accumulation of the wastes,
3. List any additional waste streams which exist. Also list how they have been designated and have or are being managed.

4.1.1.1 Dispersible Debris

1. List all the radioactive sources.
2. Provide a range of radioactivity from high to low.

4.1.1.5 Oil-Absorption Material

1. Was was the mixed waste managed?
2. What is the quantity of waste generated/
3. When did the leak occur, when was it fixed, Has the leaking window been fixed so no new additional wastes are being generated?

4.1.2 HLV Tank Waste Inventory and Characteristics

1. Has these tanks ever contained and managed multiple products generating different waste streams. How were these streams managed?

4.1.2.1 Tanks 104 and 105

1. Are the waste streams the same as in 1990? If not, have samples been taken more recently?

4.1.2.2 Tanks 106 and 107

1. What process was used to designate the wastes in Tank 106?

4.1.2.3 Process of Compiling Waste Characterization Information

1. What were the results of the Project Reports?

4.2.1 REC Waste-Treatment Plans

Draft

Provide detailed steps of decontamination. What equipment will be used? What is the capacity of the equipment? How will the equipment be managed upon completion of decontamination?

4.2.2 HLV Tank-Waste Treatment Plans
1. What is the estimated rate of evaporation?
2. Provide the process for isotope separation- What equipment is needed, estimated time for isotope separation, how will the isotope separation occur, etc...
3. Where will the wastes slated for disposal go?
4. Where will the recyclable material go?

5.0 Groundwater
1. What about soils? What steps have been taken to verify that wastes do not have contamination?

6.1 Closure Strategy
Need integrity assessment of pipes undergoing closure and those being used to transfer wastes (assuming those in transfer are not undergoing closure and will be reused for other purposes)
6.2 General Closure Activities
1. Define decontaminate and include all the steps intended to be used for decontamination
2. What equipment will be used?
3. Will additional wastes be generated?
4. How will the equipment and additional wastes be managed.
5. If remote equipment will be used, please specify the type
6. Provide the physical actions from set up to clean closure to management of all existing and newly generated wastes through closure operations

6.2.1 Closure Activities for B-Cell
1. What are the testing types? Who evaluates the testing.?
2. Provide the actual physical steps of clean closure

6.2.3 Closure Activities for HLV Tank
1. Attach 324 HLV IRA Project Map
2. Provide the actual physical steps intended for closure
3. Provide the steps to determine the extent of contamination of leaking tanks.
4. List the additional necessary decontamination steps if tanks have leaked.

6.3 Minimize the Need for Future Maintenance
1. Be specific to which cleanup level.
2. To which radioactive standard will the radioactive portion of the mixed waste be decontaminated to.? Rad standards are currently being developed. Will the site remain contaminated with radioactive wastes or residues?
3. How will the land be returned to previous appearance, will trees be planted, ect?

6.6 Compliance with Closure Requirements
1. Cleanup levels are not negotiated .

7.2.1 324 Building B-Cell Safety Cleanout Project
1. Need to designate and characterize Suspect mixed waste to determine how the waste will be managed.
2. What equipment will be remotely operated? Describe physical steps of how equipment will be operated.
3. What safety precautions are being taken.

7.2.1.1.2 Dried Melter Felter
1. What type of treatment is anticipated?
2. When will the treatment occur?
3. List the appropriate permitted storage location.

DRAFT

7.3.11.2
1. Need to mark the hazards of the wastes in the SAA.
2. How will wastes be designated in SAA's.
3. How will the SAA be under control of the operator/owner?

7.3.11.3
1. Are the training records, contingency plan where the closure is occurring.

7.5 Integrity Assessment of the Units
1. Describe the integrity assessment of the pipes.

7.11 Schedule for Closure
1. Provide additional detail on the timing for steps involved in the closure.

If there are any additional questions or concerns, you can contact me at (509)736-5709.

DRAFT

324 Building REC and HLV Tank Closure Plan
(M-20-55 Submit closure plan for Non-Permitted Mixed Waste Units located in the 324 Building REC B-Cell, D-Cell and HLV)
Submitted December 22, 1995 Reveiw due
Department of Health (Randy Acselrod) Comments
January 9, 1996

A Notice of Construction must be submitted prior to conducting evaporation treatment process in D Cell.

The closure plan lacks detail, such as source term, contaminated equipment, partical size, etc.

Analytical waste charaterization necessary. Process knowledge is not adequately described.

Containerized feed tank heal must be describe and source term provided.

Provide acceptable handling limits for waste treatment.

Regulatory limits must be explained.

If operational approval is required from EPA regarding radioactive emissions then DOH must also be provided with a copy.

Please provide a copy of the HASP manual which is said to be the standard for Hanford Site radioactive work.

Need more information regarding the radiation limit. Note, WHC knows requirements (Appendix A information).

Attachment 6

324 REC/HLV CLOSURE PLAN
Project Managers Meeting
Ecology - Kennewick Office, Room 8
Kennewick, Washington

January 11, 1996
1:00 p.m. to 2:00 p.m.

Status of DQO Process for Closure Plan Sampling Plan and Analysis

9613404.1701

324 REC/HLV Project Manager Meeting
January 11, 1996

Status of 324 REC/HLV Closure Plan

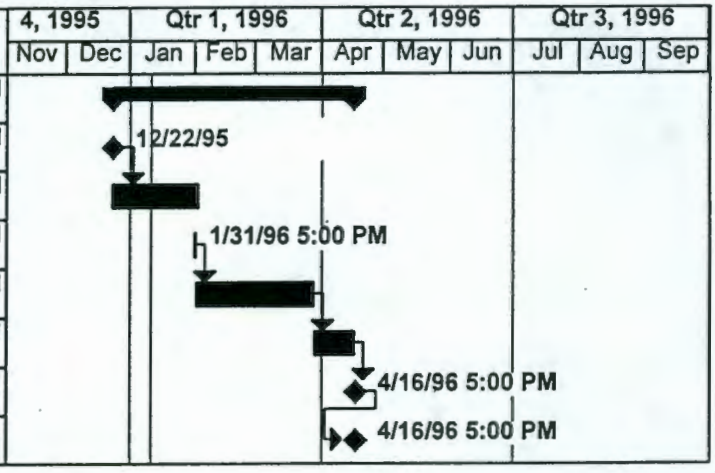
Per our original schedule a final draft of the closure plan was delivered to the Ecology office on December 22, 1995. The Closure Plan will be modified in accordance to agreements which come out of the DQO Process (see below). Upon completion of the DQO process, a revised Closure Plan will be issued and be used as the basis for workshop reviews/finalization. A concrete schedule has not been established for this final review process, however, it is anticipated to begin in the second quarter of CY 1996.

Status of DQO Process

The DQO process is scheduled to begin on January 31, 1996. Three to four meetings will be required to complete the DQO for the 324 REC/HLV. The final schedule for each of the subsequent meeting will be decided at the kick-off meeting on 1/31/96. It is anticipated that the process will be completed some time in March 1996 (See baseline schedule below).

DQO - Baseline Schedule

ID	Task Name	Duration
1	324 REC/HLV	83d
2	Closure Plan Delivered	0d
3	Closure Plan Review	30d
4	DQO Kick-off	1d
5	DQO Process	40d
6	Closure Plan Revision	14d
7	Submit Revised Closure Plan	0d
8	Begin Closure Plan Review	0d



Attachment 7

324 REC/HLV CLOSURE PLAN
Project Managers Meeting
Ecology - Kennewick Office, Room 8
Kennewick, Washington

January 11, 1996
1:00 p.m. to 2:00 p.m.

cc:Mail Message Regarding Shipments to PUREX

Author: Patrick J Weaver at ~PNL88
Date: 1/4/96 1:35 PM
Priority: Normal
Receipt Requested
TO: Jeanne J Wallace at ~TPA1
CC: Charles R (Bob) DeLannoy at ~DOE13
CC: Maria C Vargas at ~DOE20
CC: Michael H Schlender at ~PNL97
CC: Delores K Lutter at ~PNL97
Subject: Re[2]: Follow up on DNFSB Information
---------- Message Contents ----------

Jeanne,

I was going to give you a run down at the PMM next week, but since you asked here is a quick update.

We have completed two shipments of NON mixed waste to PUREX. Each shipment has consisted of remote handled TRU HEPA filters. We are planning to make the first shipment of mixed waste to PUREX the week of January 15 or January 22, depending on the timing with PUREX.

Pat

Reply Separator

Subject: Re: Follow up on DNFSB Information
Author: Jeanne J Wallace at ~TPA1
Date: 1/4/96 1:13 PM

Pat,

How are the shipments out of 324 going. Please brief me.

Jeanne

Reply Separator

Subject: Follow up on DNFSB Information
Author: Patrick J Weaver at ~PNL88
Date: 1/4/96 11:03 AM

Jeanne,

I was just sending a ccmail to follow up on our discussions at the last PMM (and to close out an action with my name on it).

You had requested to get the report for the DNFSB assessment conducted at the 324 Building in late October. When looking for the report, I learned that the DNFSB assessment was a Hanford Site Wide review with very little conducted at 324. The assessment focused on Radiological Control. The only direct reference to PNL in the draft report was "K East Basin and PNL have had recent upgrades in their Rad Engineering staffs".

If you have any questions, please feel free to call me at 376-3075.

Pat

Attachment 8

324 REC/HLV
Unit Managers Meeting
Ecology Nuclear Waste Program Offices, Room 8
Kennewick, Washington

January 11, 1996
1:00 p.m. to 2:00 p.m.

cc:mail Message Regarding HLV Sump

9613404.1705

Author: Patrick J Weaver at ~PNL88
Date: 1/4/96 8:56 AM
Priority: Normal
Receipt Requested
TO: Delores K Lutter at ~PNL97
Subject: HLV Sump

---------- Message Contents ----------

Delores,

Here is the only notification that I did. It was to Bet and we decided to mention it at the PMM in December (which I promptly forgot).

Please note that the sump was empty on November 27th.

pat

---------- Forward Header ----------

Subject: HLV Sump
Author: Patrick J Weaver at ~PNL88
Date: 11/30/95 3:59 PM

Bet,

How would you like this documented. A letter to DOE to Ecology or just mention it at the next unit manager's meeting. As a hint to the direction I think we should take, the next unit manager's meeting is on Thursday December 7th (a week from today).

Pat

---------- Forward Header ----------

Subject: HLV Sump
Author: David O Jenkins at ~PNL88
Date: 11/30/95 11:51 AM

On November 22, 1995, the reading recorded during tank status for the HLV was 0.5 inches. On November 27, 1995, the level was recorded at 0.0 indicating the remainder of the liquid evaporated over the weekend.

Distribution:

M. A. Barnard	RL	L4-40
R. C. Bowman	WHC	H6-24
R. M. Carosino	RL	A4-52
C. E. Clark	RL	A5-15
B. J. Day	PNL	P7-79
C. R. Delannoy	RL	A5-15
G. H. Fess	PNL	P7-79
G. D. Hendricks	GSSC	B1-42
T. Y. Hosaka	PNL	K7-98
D. K. Lutter	PNL	P7-79
S. M. Price	WHC	H6-23
M. H. Schlender	PNL	P7-79
H. T. Tilden II	PNL	P7-79
M. C. Vargas	RL	K8-50
J. J. Wallace	Ecology	B5-18
P. J. Weaver	PNL	P7-35
RCRA Files/GHL	WHC	H6-23

ADMINISTRATIVE RECORD (Two Copies): 324 REC/HLV Closure Plan, S-3-4
[Care of EDMC, WHC (H6-08)]

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

Please send comments on distribution list to D. K. Lutter (P7-79), (509) 376-5631.