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Meeting Minutes Transmittal

324 REC/HLV
Project Managers' Meeting
Federal Building/Room 269
Richland, Washington

August 9, 2000
10:00 a.m. to 12:00 a.m.

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

David W Templeton Date: 8/30/00
David W. Templeton, Project Manager, RL

A. B. Stone Date: 8/30/00
A. B. Stone, Project Manager, Washington State Department of Ecology

324 REC/HLV Closure Plan, FH Concurrence

David E Rasmussen Date: 8/30/00
D. E. Rasmussen, Contractor Representative, FH

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 - DRAFT TPA Milestone M-89-02 Checklist
- Attachment 5 - DRAFT Waste Stream Description and Disposition Path for 324 Bldg B-Cell MW and non-MW
- Attachment 6 - Ecology handout regarding use of 90 day MW accumulation area and clarifications regarding M-89-02 milestone performance standard
- Attachment 7 - Rectangular Grout Container (RGC) drawing

Attachment 1

**324 REC/HLV
Project Managers' Meeting
Federal Building/Room 269
Richland, Washington**

**August 9, 2000
10:00 a.m. to 12:00 a.m.**

AGENDA

1. Introduction
2. Previous Meeting Minutes
3. B-Cell cleanout project status
 - a. Recent progress/highlights
 - b. B-Cell mixed waste (MW) and non-mixed waste (non-MW) descriptions
 - c. Use of the 324 Building High-Rad Yard 90-day accumulation area for B-Cell MW
 - d. Use of A-Cell for B-Cell non-MW grout containers
 - e. Milestone M-89-02 actions/performance standards/M-89-02 checklist
4. Action Item Review
5. Other topics/discussion
 - a. Future visits/workshops as appropriate
 - b. Other topics
6. Schedule Next Meeting

Attachment 2

324 REC/HLV Project Managers Meeting Federal Building, Room 269 Richland, Washington

August 9, 2000
10:00 a.m. to 12:00 a.m.

1. **Introduction**

Introductions were made (see attendance list).

2. **Previous Meeting Minutes**

Minor comments were received for the July 13, 2000 meeting minutes and will be incorporated prior to approval.

3. **B-Cell cleanout project status**

a. **Recent progress/highlights**

N. Krohn (FH) reported that a mock-up process for loading mixed waste into the steel waste disposal boxes (SWDB) is ongoing, and the first SWDB is anticipated for loading by the end of August 2000. The size reduction of the shuttle boxes associated with the 2A rack is nearly complete. Lead shield plugs were loaded into rectangular grout containers (RGC) for the mixed waste packaging/containerization campaign. Currently five of the RGCs, which are the inner container for the SWDB, are at various stages of loading in B-Cell. The projection is to have all 14 SWDBs containerized and shipped to the 200 Area by November 30, 2000. D. Rasmussen (FH) noted that the RGCs are actually steel boxes that do not get grouted, but since they have been traditionally called rectangular grout containers, the terminology has been maintained.

b. **B-Cell mixed waste (MW) and non-mixed waste (non-MW) descriptions**

D. Rasmussen provided a six-page handout containing MW and non-MW descriptions (Attachment 5). Mr. Rasmussen stated that the handout indicates that the SWDBs (MW) will be removed from B-Cell and may be staged in the 324 Building 90-day MW accumulation area prior to shipment to the 200 Area. Mr. Rasmussen also stated that the handout indicates that approximately 23 GCs (non-MW) are expected to be present in the A-Cell on November 30, 2000, and shipping will resume in December 2000 after completion of the SWDB (MW) shipments, pending weather constraints.

A lengthy discussion resulted after FH proposed a September 30, 2001, completion date for shipping the GCs (non-MW) to the 200 Area. A. Stone (Ecology) pointed out that the Tri-Party Agreement (TPA) milestone calls for removal of the waste from B-Cell by November 30, 2000, and the expectation was to have the waste moved to a 200 Area compliant storage area by then. Dr. Stone indicated that Ecology was willing to be flexible in its interpretation of the milestone and grant an extension of six months for shipping the non-MW to the 200 Area.

T. Erickson (FH) explained that the current schedule takes into consideration wind and road conditions (during winter).

A. Stone stated he preferred an aggressive schedule with an option to discuss the need for additional extension(s) should unplanned/uncontrolled events occur (e.g., weather limitations, equipment failures, etc.). Dr. Stone stated that discussions for additional extensions would take place on an as-needed basis, if and/or when unplanned/uncontrolled events occur.

Ecology suggested that we take a short meeting break to allow Ecology and RL and FH to caucus to discuss an acceptable milestone completion date. After the break, during which Ecology left the room, a shipping completion date (for the non-MW grout containers) was negotiated with Ecology. The resultant date for shipping the GCs (non-MW) to the 200 Area was identified as July 31, 2001. DOE also committed to establishing an internal programmatic milestone requiring transfer of the non-MW grout containers to the 200 Area by the agreed upon date.

Dr. Stone provided a marked-up handout regarding Ecology's position regarding use of the 90-day MW accumulation area and classifications for the M-89-02 milestone performance standard. Note: The Ecology handout was slightly edited (final) and subsequently transmitted to DOE and FH personnel on August 21, 2000, via email (Attachment 6).

Dr. Stone indicated that the statements in Attachment 6 received Ecology senior management approval.

D. Templeton (DOE-RL) noted that the wording in Ecology's handout indicates that DOE received confirmation of completion of the M-89-02 milestone after July 31, 2001. A. Stone responded that DOE may send a letter after November 30, 2000, stating that M-89-02 has been met, but Ecology will not respond until after the grout containers (non-MW) staged in A-Cell have been moved to compliant storage in the 200 Area.

c. **Use of the 324 Building High-Rad Yard 90-day MW accumulation area for B-Cell MW**

Dr. Stone indicated that Ecology agreed to use regulatory enforcement discretion and allow the transfer of containerized mixed waste from B-Cell to the 90-day MW accumulation area (see Attachment 6). Dr. Stone stated that Ecology's enforcement discretion was limited only to the MW dispositioned from B-Cell under the M-89-02 milestone and does not constitute a precedent for the site.

d. **Use of A-Cell for B-Cell non-MW grout containers**

This topic was addressed under item 3(b) and Attachment 6.

e. **Milestone M-89-02 actions/performance standards/M-89-02 checklist**

A. Stone stated that Ecology received an electronic copy of the draft M-89-02 milestone checklist (Attachment 4). A workshop was set up for August 23, 2000, at 10 a.m. to review the draft checklist in more detail.

4. **Action Item Review**

M. Barnett (FH) was to provide a copy of the 324 Liquid Waste Handling study. The study (HNF-6291, Evaluation of Liquid Waste Handling Options for the 324 Building) was transmitted to Ecology today (August 9, 2000), closing the action. D. Rasmussen noted that the mailing list for agendas and the PMMs has been updated.

Mr. Rasmussen acknowledged that he had a continuing action to provide Ecology with a schedule for the mock-up MW packaging and shipping activities.

5. **Other topics/discussion**

a. Future visits/workshops as appropriate

T. Masterson-Heggen (Ecology) stated that she would be setting up several site visits to become familiar with the 324 facility and its operations.

b. Other topics

D. Templeton initiated a discussion regarding 324 REC MW packaging (see page 1 of Attachment 5). D. Rasmussen stated that 324 Facility management is considering a different waste packaging concept that continues to meet the 200 Area Treatment, Storage and Disposal unit permit conditions, Safety Analysis Review conditions, Safety Analysis Review for Packaging conditions, transportation, etc. The packaging would involve directly loading MW dispersibles into rectangular grout containers (RGC), eliminating the engineered

container (EC). T. Erickson noted that the EC is not considered a containment barrier in the authorization basis documentation. The waste profile will not need to be revised to accommodate direct loading of dispersibles into RGCs. The waste profile for B-Cell MW is being revised to reflect the 200 Area Central Waste Complex dose rate limit (200 millirem/hour) for contact handling of the SWDBs.

A. Stone indicated that as long as the waste acceptance criteria requirements of the 200 Area TSD units are met, the packaging concept (i.e., direct loading of MW dispersibles into RGCs) is acceptable to Ecology.

D. Langstaff (DOE-RL) stated that DOE-RL is expecting to receive a letter from FH making a recommendation based on their evaluation of the issues surrounding achieving the M-89-02 milestone by the formal milestone completion date of November 30, 2000.

Dr. Stone agreed that the 324 REC PMMs should be held monthly, due to the increasing need for frequent communications.

6. **Schedule Next Meeting**

The next meeting was scheduled for September 14, 2000, at 1:30 p.m. at the Federal Building in Richland, Washington.

Attachment 3

Attendance List

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

Date: August 9, 2000

Original included in hard copy.

Name	Company	Phone Number
Jon Perry	FH/RCP	376-4791
T. L. Erickson	FH/RCP	373-0295
D. A. Brown	DOE/FTD	376-8876
Ellen Mattlin	DOE/RL/OSS	376-2385
David Langstaff	DOE/RL/FTD	376-5580
Tina Masterson-Heggen	Ecology	736-5701
Alex Stone	Ecology	736-3018
Deborah Singleton	Ecology	736-5722
J. Matthew Barnett	FH/RCP	373-2928
Eric Vogt	FH/RCP	373-2519
Darrell Riffe	FH/RCP	376-0149
Edward Krohn	FH/324	373-1538
Mal Wright	FH/324	373-5864
Monica Serkowski	FH/324	372-0074
Dave Evans	RL-FTD	373-9278
Dave Templeton	DOE-RL FTD	373-2966
David E. Rasmussen	FH/RCP/324/327	376-3288
Rob E. Piippo	FH/TPA	373-3285
Jon Yerxa	DOE-ORL	376-9628

Attachment 4 – DRAFT TPA Milestone M-89-02 Checklist

324 BUILDING TRI-PARTY AGREEMENT INTERIM MILESTONE M-89-02 CHECKLIST

Action/Requirement/Conditions	Status (Complete (X) In Progress (P))	Status Statement	% Complete	Estimated Completion Date	Actual Completion Date	Documentation Provided to	
						RL	Ecology
<p>1) First Distinct Action</p> <p>Mixed waste (MW) must be containerized, removed from B-Cell and placed in a condition that is compliant with Chapter 173.303 of the WAC</p> <p>Performance standard for First Distinct Action:</p> <ul style="list-style-type: none"> • Removal of MW from REC B-Cell requires collection and containerization of dispersible material from B-Cell • Collection will not include destructive and/or chemical methods (i.e., spalling or decontamination washes) • Dispersible material will be containerized in a compliant (with receipt facility acceptance criteria) container system • Containerized dispersible material will be removed from REC B-Cell and may be moved to an interim storage area 							
1a Perform gross removal of dispersibles through retrieval with a pneumatic clamshell from the B-Cell floor							
1b Remove dispersibles using filtered vacuuming of B-Cell floor							
1c Containerize dispersibles collected by these methods							
1d Move containerized dispersibles to a compliant mixed waste storage area (Continued on next page)							

Action/Requirement/Conditions	Status (Complete (X) In Progress (P))	Status Statement	% Complete	Estimated Completion Date	Actual Completion Date	Documentation Provided to	
						RL	Ecology
1d (Continued)							
1d.1 Remove containerized MW dispersible material from B-Cell. -MW containers may be moved to 324 Building 90-day MW accumulation area after packaging and radiological survey, to await final acceptance/release for shipping to 200 Area Central Waste Complex (CWC). This provides waste management controls commensurate with WAC 173-303 dangerous waste accumulation requirements. Ecology concurrence (through enforcement discretion) is needed since the MW is not newly generated.							
1d.2 Ship containerized MW dispersible material to 200 Area							
2) Second Distinct Action:							
Removal and containerization of excess equipment from the REC B-Cell Table attached to RL letter 00-FTD-006 provides all equipment currently within the REC B-Cell and defines "Excess" versus "Required" equipment (Continued on next page)							

Action/Requirement/Conditions	Status (Complete (X) In Progress (P))	Status Statement	% Complete	Estimated Completion Date	Actual Completion Date	Documentation Provided to	
						RL	Ecology
2) Continued Performance Standard for Second Distinct Action: <ul style="list-style-type: none"> Removal and containerization of all equipment (excluding Spent Nuclear Fuel, SNF) from B-Cell not required for the implementation of further closure actions and/or deactivation endpoints as established in the Closure Plan and the 324/327 Buildings integrated Project Management Plan (PMP), HNF-1289 Excess equipment is defined in Table attached to RL letter 00-FTD-006, which provides the listing of B-Cell and a determination of its disposition status per M-89-02 							
2a Remove following "Excess" equipment from B-Cell:							
2a.1 Rack 2A and remaining portions of previously size reduced racks							
2a.2 2,265-kilogram steel block							
2a.3 Sump trench cover screen, east end of B-Cell floor							
2a.4 Waste containers, i.e., grout containers, engineered containers, and rectangular grout containers							
2a.5 Storage rack (engineered container wagon wheel) used for Special-Case Waste and MW							
2b Remove containerized excess MW equipment from B-Cell							
2c Ship containerized excess MW equipment (SWDBs) to 200 Area							

Action/Requirement/Conditions	Status (Complete (X) In Progress (P))	Status Statement	% Complete	Estimated Completion Date	Actual Completion Date	Documentation Provided to	
						RL	Ecology
2d Remove containerized excess non-MW equipment (grout containers) from B-Cell (to be staged in A-Cell by 11/30/00)							
2e Following "Required" equipment to remain in B-Cell to support closure activities: <ul style="list-style-type: none"> • Cell penetration plugs • West window work tray • 10-ton crane/overhead crane rail • 3-ton crane/overhead crane rail • Two temporary fuel storage racks¹ • Fuel pin storage container (gattling gun)¹, west wall • Fuel thimbles¹, west side of B-Cell in fuel storage racks • Installed electrostatic precipitators and particulate filters, north wall • Installed manipulators • Empty grout containers, lids, engineered containers (Continued on next page)							

¹ SNF currently stored within B-Cell will remain in B-Cell pending availability of the 200 Area Interim Storage Area (ISA). This is a delay in the removal of the fuel out of B-Cell. The former schedule had an interim movement of this fuel out of B-Cell and into A-Cell pending availability of the ISA. The project will benefit by eliminating this interim move within the facility and result in an earlier shipment of SNF out of the 324 Building, and allow for an overall better sequencing of closure activities within the 324 Building.

Action/Requirement/Conditions	Status (Complete (C) In Progress (P))	Status Statement	% Complete	Estimated Completion Date	Actual Completion Date	Documentation Provided to	
						RL	Ecology
2e "Required" equipment (continued) <ul style="list-style-type: none"> • Useable deactivation equipment such as vacuum cleaner/robotic crawler, and end effectors/tools, etc., located on B-Cell floor, including following: <ul style="list-style-type: none"> • Fire protection hoses and nozzles (needed for fire protection) • Installed and functioning camera systems, including pan/tilt heads, mounts, etc. (needed for size reduction of fuel storage equipment, as well as cleanout of pipe trench and D-Cell) • Fixed and portable lights (needed for viewing the cell) • Jib crane (accompanies 3-ton crane) and auxiliary hooks for 10-ton and 3-ton cranes (needed for fuel pin consolidation and size reduction of fuel storage equipment) • Torches and cables (needed for size reduction of fuel storage equipment) • Clamshells (needed for removal of size reduced fuel storage equipment as well as cleanout of pipe trench and D-Cell) • Dispersibles Removal System (DRS) attachments (needed for cleanout of D-Cell particulate material) • Vacuum system and hoses (needed for cleanout of D-Cell and pipe trench material) (Continued on next page)							

Action/Requirement/Conditions	Status (Complete (X) In Progress (P))	Status Statement	% Complete	Estimated Completion Date	Actual Completion Date	Documentation Provided to	
						RL	Ecology
<ul style="list-style-type: none"> Useable deactivation equipment (continued) <ul style="list-style-type: none"> Extension cords and cables. Needed for operating installed equipment including electrostatic precipitators, portable lights, cameras, and DRS system. Labounty shear (needed for size reduction of fuel storage rack, but being reevaluated) Rinsing equipment (needed to support future deactivation packaging and loadout of low-level waste and transuranic waste materials and equipment into 3-82B grout containers) Grouting equipment (needed for grouting future low-level; waste 3-82B grout containers) 							
<p>3) Third Distinct Action:</p> <p>Removal of debris from B-Cell</p> <p>Performance Standard for Third Distinct Action:</p> <ul style="list-style-type: none"> Miscellaneous debris (i.e., tools, metal scrap, manipulator boots) located on B-Cell floor will be removed from B-Cell and packaged for removal Packaged debris will be removed from the REC B-Cell 							
3a Collect debris from B-Cell							
3b Rinse and package debris consistent with the size-reduced equipment removed from B-Cell							

Action/Requirement/Conditions	Status (Complete (X) In Progress (P))	Status Statement	% Complete	Estimated Completion Date	Actual Completion Date	Documentation Provided to	
						RI	Ecology
3c Remove non-MW debris (grout containers) from B-Cell (to be staged in A-Cell by 11/30/00)							

324 BUILDING – TRI-PARTY AGREEMENT MILESTONE M-89-02 CHECKLIST -- BACKGROUND INFORMATION

The Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Milestone M-89-02 is defined in Tri-Party Agreement Change Number M-89-98-03 as “Complete removal of 324 Building REC B-Cell MW and Equipment”. The M-89-98-03 change indicates that containerized MW will be managed in compliance with Chapter 173.303 WAC (Washington Administrative Code, Dangerous Waste Regulations), thereby reducing risks to human health and the environment. It also indicates that any remaining residues will be managed through the final closure process.

The checklist provided consists of a list of the actions and conditions described in the DOE RL letter number 00-FTD-006, “Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Interim Milestone M-89-02, Complete Removal of 324 Building REC B-Cell MW and Equipment, November 30, 2000”. The subject letter was submitted to Ecology on December 08, 1999. The letter provided an Attachment and a Table to provide greater definition for the performance standards to be met by interim milestone M-89-02.

Ecology concurred with RL letter 00-FTD-006 in a response letter (same subject) to RL, dated February 28, 2000.

References:

- 1) TPA Change Number M-89-98-03, for Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement, TPA), regarding Milestone M-89-02, November 1998
- 2) DOE RL Letter No. 00-FTD-006, “Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Interim Milestone M-89-02, Complete Removal of 324 Building REC B-Cell MW and Equipment, November 30, 2000”, dated December 08, 1999
- 3) Ecology letter dated February 28, 2000, same subject as reference (2)
- 4) DOE/RL-96-73, “324 Radiochemical Engineering Cells, High-Level Vault, Low-Level Vault, and Associated Areas Closure Plan”, March 1998
- 5) HNF-1730, Revision 2, “324/327 Buildings Special-Case Waste Assessment and Disposition Alternatives Analysis”, September 1999
- 6) HNF-2570, Revision 1, “324 Facility Special-Case Waste Assessment in Support of 324 Closure (TPA Milestone M-89-05)”, June 1998
- 7) HNF-3590, Revision 1, “Waste Designation Process for 324 Building Radiochemical Engineering Cells and 327 Building Hot Cells”, August 1999

**Attachment 5 – DRAFT Waste Stream Description and Disposition Path
for 324 Bldg B-Cell MW and non-MW**

**Waste Stream Description and Disposition Path for 324 Building
B-Cell Mixed Waste and Non-Mixed Waste – 8/08/00**

Mixed Waste for Staging in 324 Building 90-Day Accumulation Area

This document provides a description of the 324 Building Radiochemical Engineering Cell (REC) B-Cell mixed waste (MW) that will be staged at the 324 Building 90-day MW accumulation area to facilitate cleanout of the 324 Building B-Cell. The 324 Building high-rad yard 90-day MW accumulation area is managed in accordance with and subject to Washington Administrative Code (WAC) 173-303-200 requirements for a less-than-90-day accumulation area.

The MW to be staged at the 324 Building 90-day accumulation area consists of MW streams addressed in the 324 Building REC Closure Plan, Section 4.2 (reference 1). These MW streams are described below. These waste streams are also addressed in references 2 and 3.

The MW in B-Cell is being containerized for shipment to a permitted Resource Conservation and Recovery Act of 1976 (RCRA) treatment, storage, and disposal (TSD) unit in the 200 Area. After containerization, staging of B-Cell MW in the 90-day MW accumulation area will be performed consistent with the Washington State Department of Ecology (Ecology) enforcement discretion to facilitate 324 Building B-Cell cleanout activities. Ecology's enforcement discretion is necessary because the waste is not newly generated.

The 22.5-ton steel waste disposal box (SWDB), which will be used to package the B-Cell highly-radioactive MW, is identified as one of the MW container systems in reference 3 (Appendix E and Table E-1). The initial packaging will take place within B-Cell. Highly radioactive MW is placed in a rectangular grout container (RGC). The RGC is then placed inside a rectangular overpack disposal container (RODC). The RODC is subsequently placed inside a SWDB (located in the REC airlock), for eventual loading into the SWDB overpack for shipment. The SWDB shields the waste package and reduces the surface dose rate of the SWDB to a contact handled level (less than 200 millirem per hour) and may then be placed in the 324 Building 90-day MW accumulation area awaiting shipment.

1. **B-Cell dispersible material:** The dispersible material located in B-Cell is in the process of being packaged/containerized. The B-Cell dispersible material includes the dirt, dust, and process residue collected on the B-Cell floor during years of facility operations. As addressed in reference 1 (Section 4.0), the dispersible material includes one-time or sporadically-spilled feed material that contained heavy metals and radionuclides from past B-Cell processes. Fine dirt particles introduced through the ventilation system inlets during the life of the building are present on the B-Cell floor. Spilled liquid in B-Cell was absorbed by the material on the floor, and eventually evaporated, leaving a crusty, dried mud-like material that, if disturbed,

breaks into dispersible particles. The dangerous waste constituents present are cadmium (D006), chromium (D007), and lead (D008). The dispersible material is addressed in reference 1 (Section 4.2.1, Tables 4-1 and 4-6), reference 2 (Section 4.0), and reference 3 (Section 2.1.1.1).

2. **Equipment/dunnage and sifted debris with visible process residue or dispersible material:** B-Cell rack material, process equipment, tank sections, or sifted debris having visible process residue or dispersible material after rinsing are segregated and placed in a MW container within B-Cell. These waste items are designated as MW due to the presence of visible dispersible material, which carries the dangerous waste codes for cadmium (D006), chromium (D007) and lead (D008). The contaminated debris (with visible dispersible material) is addressed in reference 1 (Sections 4.2 and 7.1.2.1), reference 2 (Section 7.0), and reference 3 (Section 2.1.1.1).
3. **B-Cell lead (Pb):** Items containing lead, such as shielding plugs or counterbalance weights removed during B-Cell processing equipment rack disassembly activities, are located in B-Cell. These lead-bearing waste items include parts of the B-Cell racks that contained lead (Pb) added for balance during rack installation. Elemental lead waste is designated as characteristic for lead (D008) and as extremely hazardous waste (WT01). Lead waste is addressed in reference 1 (Section 4.2.2) and reference 2 (Section 6.0).
4. **Metal filters:** During the 324 Building REC High-Level Vault (HLV) waste treatment process, filters were used to collect heavy metals (e.g., barium, cadmium, chromium, lead). All twenty of these metal filters were moved from D-Cell to B-Cell in July 1997, awaiting disposition, consistent with scheduled B-Cell cleanout activities. These metal filters are located in B-Cell and will be packaged and designated as MW for barium (D005), cadmium (D006), chromium (D007), and lead (008). The filters are addressed in reference 1 (Section 4.2.6), reference 2 (Section 9.0), and reference 3 (Section 2.1.1.4 and Table 2-6).
5. **Strontium filters:** Five strontium filters were used in the 324 Building D-Cell as part of the HLV liquid waste treatment. The Pacific Northwest National Laboratory (PNNL) requested to have the three filters with the highest curie loading for the medical isotope research project. These three filters were transferred to PNNL during January 1998. The remaining filters were moved to B-Cell and are awaiting disposition consistent with scheduled deactivation activities. Filter Sr-4 is designated as MW for cadmium (D006) and chromium (D007). Filter Sr-5 is designated as MW for chromium (D007). One additional strontium filter (which had very little useage and exhibits relatively low radioactivity) is also present in B-Cell from past operations associated with the D-Cell HLV liquid waste treatment, and will be conservatively designated as MW for cadmium (D006) and chromium (D007). The strontium filters are addressed in reference 1 (Section 3.1.4), reference 2 (Section 10.0) and reference 3 (Section 2.1.1.4 and Table 2-6).

6. **Transuranic (TRU) filter/column:** One TRU filter/column was used in the HLV liquid waste treatment to remove alpha residue from the process stream. This TRU filter was part of the D-cell waste treatment skid. This TRU filter/column was moved to B-Cell for packaging using the SWDB container system. The TRU filter/column will be designated as MW due to chromium (D007). The TRU filter/column is addressed in reference 1 (3.1.4), reference 2 (Section 11.0), and reference 3 (Section 2.1.1.4 and Table 2-6).
7. **B-Cell tank heels:** Process tanks in B-Cell were used in the past to support the B-Cell operations. The tanks were drained and a dried heel residue layer was expected in each tank. A visual examination was performed after each tank was dismantled and sectioned. No significant heel or residue layer was observed. The minimal residues observed were rinsed clean, and the tank sections were dispositioned and packaged as non-MW. Per references 1 and 2, any tank sections that exhibited residues after water rinsing would have been segregated and disposed as MW with waste codes D006 (cadmium), D007 (chromium) and D008 (lead). The B-Cell tank heels are addressed in reference 1 (Section 4.2.3 and Table 4-1), reference 2 (Section 5.0), and reference 3 (Section 2.1.1.3).

Facility project status and scheduling activities have estimated that approximately 14 MW containers (SWDBs) will be used during the cleanout and containerization of B-Cell MW. Loading of RGCs within B-Cell has been completed for four RGCs. Two of the RGCs contain metal filters and cylindrical engineered containers (EC). The ECs are filled with B-Cell dispersible material. One RGC contains shielding plugs (with lead material), and one RGC contains MW equipment/dunnage and sifted debris. Additional shielding may be necessary for some of these four RGCs to meet the waste acceptance criteria for the Hanford Central Waste Complex.

Removal and shipping of B-Cell MW (14 SWDBs) is scheduled for completion by November 30, 2000, with shipments expected to begin in the August 2000 time frame and proceed at the rate of approximately one SWDB shipment per week.

Containerization of the B-Cell MW, removal from B-Cell, and shipment to the 200 Area is summarized as follows:

<u>Number of MW Containers</u>	<u>7/31/00 Status</u>	<u>11/30/00 Projection</u>
Containerized and shipped to 200 area	0	14
Containerized and staged in 90-day MW pad	0	0
Containerized and located in B-Cell	4	0
Remaining to be containerized	<u>10</u>	<u>0</u>
Subtotal	14	14

Non-Mixed Waste Associated with B-Cell

This section describes the non-MW that is being removed from the 324 Building B-Cell. This section also addresses the packaging, staging status, and disposal pathway for the B-Cell non-MW, which is containerized in large cylindrical steel containers referred to as grout containers (GC).

The B-Cell non-MW stream consists of B-Cell equipment/dunnage and sifted debris, which contains various non-dangerous waste items, including B-Cell rack material, process equipment, tools, manipulator boots and rings, plasma torch cables, tubing, metal cable and other sifted debris. This waste stream is generated primarily from the size reduction of B-Cell racks. The items in this waste stream are cut into manageable sized pieces for packaging and shipment. These size-reduced pieces are either placed directly into the GC or are allowed to fall to the floor for later collection (as sifted debris). All items having the potential of containing floor dispersible or tank heels material are required to be rinsed of visible dispersible material or tank heel material before being placed into the GC (reference 1, Section 7.1.2.1, and reference 2, Section 7.0). Rinsing of the B-Cell equipment/dunnage and sifted debris waste stream material is performed because the dispersible material exhibits dangerous waste characteristics (reference 1, Section 4.2.1 and Table 4-6).

Using dose profiling characterization information, the curie content in each waste container is calculated and the waste container is then categorized as LLW or TRU waste based on the calculated TRU content.

Facility project status and scheduling activities indicate that approximately 40 GCs will be generated during the containerization of excess B-Cell equipment and sifted debris. Containerization has been completed for 31 GCs as of July 31, 2000.

For the projected 40 GCs, shipping has been completed for 17 GCs during FY 2000 (as of 7/31/00). The 17 GCs shipped during FY 2000 are shown in Table 1.

<u>Table 1 – 324 Building B-Cell Grout Containers Shipped During FY 2000 (as of 7/31/00)</u>		
	Grout container number	Shipped date
1	GC-136	03/22/00
2	GC-129	03/29/00
3	GC-133	04/05/00
4	GC-137	04/12/00
5	GC-135	04/20/00
6	GC-128	04/26/00
7	GC-138	05/03/00
8	GC-112	05/11/00
9	CG-113	05/17/00
10	GC-114	05/24/00
11	GC-084	06/08/00
12	GC-100	06/15/00
13	GC-127	06/22/00
14	GC-134	06/28/00
15	GC-147	07/19/00
16	GC-145	07/25/00
17	GC-149	07/31/00

Thirteen GCs (non-MW) are currently staged in A-Cell. The 13 grout containers staged in A-Cell include: GC-132, GC-139, GC-140, GC-141, GC-146, GC-148, GC-150, GC-151, GC-152, GC-153, GC-154, GC-155, and GC-156.

An additional seven GCs are located in B-Cell. One of the seven GCs is full (GC-115). The other six GCs (GC-88, GC-118, GC-120, GC-126, GC-157, and GC-158) are at various stages of filling/processing/documentation.

Three additional GCs containing B-Cell non-MW are expected to be generated as B-Cell excess equipment removal activities continue. These three GCs will be filled with waste, removed from B-Cell, and staged in A-Cell to facilitate B-Cell cleanout activities. The status of the 40 planned GCs is as follows:

<u>No. of Non-Mixed Waste Grout Containers (GCs)</u>	<u>7/30/00 Status</u>	<u>11/30/00 Projection</u>
Containerized and shipped to 200 Area	17	17
Containerized and located in B-Cell	7	0
Containerized and staged in A-Cell	13	23
Remaining to be containerized	<u>3</u>	<u>0</u>
Subtotal	40	40

The current GC shipping campaign is expected to be placed on a planned temporary hold after July 31, 2000. The focus is being shifted to packaging and containerization of the B-Cell MW using the steel waste disposal boxes (SWDB) container system. After B-Cell MW is containerized, SWDB containers will be removed from B-Cell and staged in the 324 Building MW 90-day accumulation area for subsequent shipment to the 200 Area, as discussed in previous section addressing B-Cell MW. Approximately 23 GCs (non-MW) are expected to be present in the A-Cell staging area on November 30, 2000, based on GC and SWDB shipping projections.

The shipping of B-Cell non-MW GCs is planned to resume in December 2000 after completion of the SWDB MW shipments. Completion of shipment of the balance of B-Cell non-MW GCs from the A-Cell staging area is scheduled for FY 2001. Shipments during the December 2000 through March 2001 time frame are expected to take place at the rate of approximately one GC per month due to winter road conditions and shipping temperature restrictions. Shipments are expected to take place at a rate of approximately three GCs per month thereafter until completed. Shipping of the subject GCs staged in A-Cell is expected to be complete by ~~September 30, 2001~~, assuming sufficient FY 2001 funding.

7-31-01

References:

1. DOE-RL, 1998, Rev. 1, *324 Building Radiochemical Engineering Cells, High Level Vault, Low Level Vault, and Associated Areas Closure Plan*, DOE/RL-96-73, March 1998, U.S. Department of Energy, Richland Operations Office, Richland, WA.
2. HNF-3590, Rev. 1, *Waste Designation Process for 324 Building Radiochemical Engineering Cells and 327 Building Hot Cells*, August 1999.
3. HNF-1730, Rev. 2, *324/327 Buildings Special-Case Waste Assessment and Disposition Alternatives Analysis*, September 1999.

Attachment 6 – Ecology handout regarding use of 90 day MW accumulation area and clarifications regarding M-89-02 milestone performance standard

General:

Ecology over the past several years has placed considerable emphasis on packaging waste from the 324 Facility and removing it to compliant, long-term storage. Ecology has been and is concerned about the large amount of contamination stored in a facility that is close to the Columbia River, human communities and public drinking water sources. For this reason a compliance inspection was initiated to review the 324 Facility which led to subsequent M-89 TPA milestones for the cleanup of the 324 Facility. Ecology expects that the M-89 milestone series, where applicable, will be met when waste currently stored in the 324 Facility is packaged and removed to compliant storage in the 200 Areas at Hanford. Storage of material removed from the 324 REC complex in other portions of the building does not meet the requirements of applicable M-89 milestones.

Use of 90-day external accumulation pad:

Ecology recognizes the challenges faced with cleaning up the 324 REC complex. Therefore, although the waste contained in the 324 B Cell is not newly generated waste, Ecology will use its compliance discretion to allow the transfer of the containerized mixed waste from B Cell to the external 90-day storage pad. Only previously generated mixed waste currently stored in the 324 B Cell can be sent to this 90-day storage pad. This is a one-time-only exemption used to facilitate the cleanup of the 324 B Cell and does not constitute a precedent for the Hanford Site. Ecology also expects that all mixed waste collected from 324 B Cell will be sent to compliant storage in the 200 Area prior to the date required to fulfill TPA Milestone M-89-02 regardless of the date at which it was sent to the 90-day storage pad.

M-89-02:

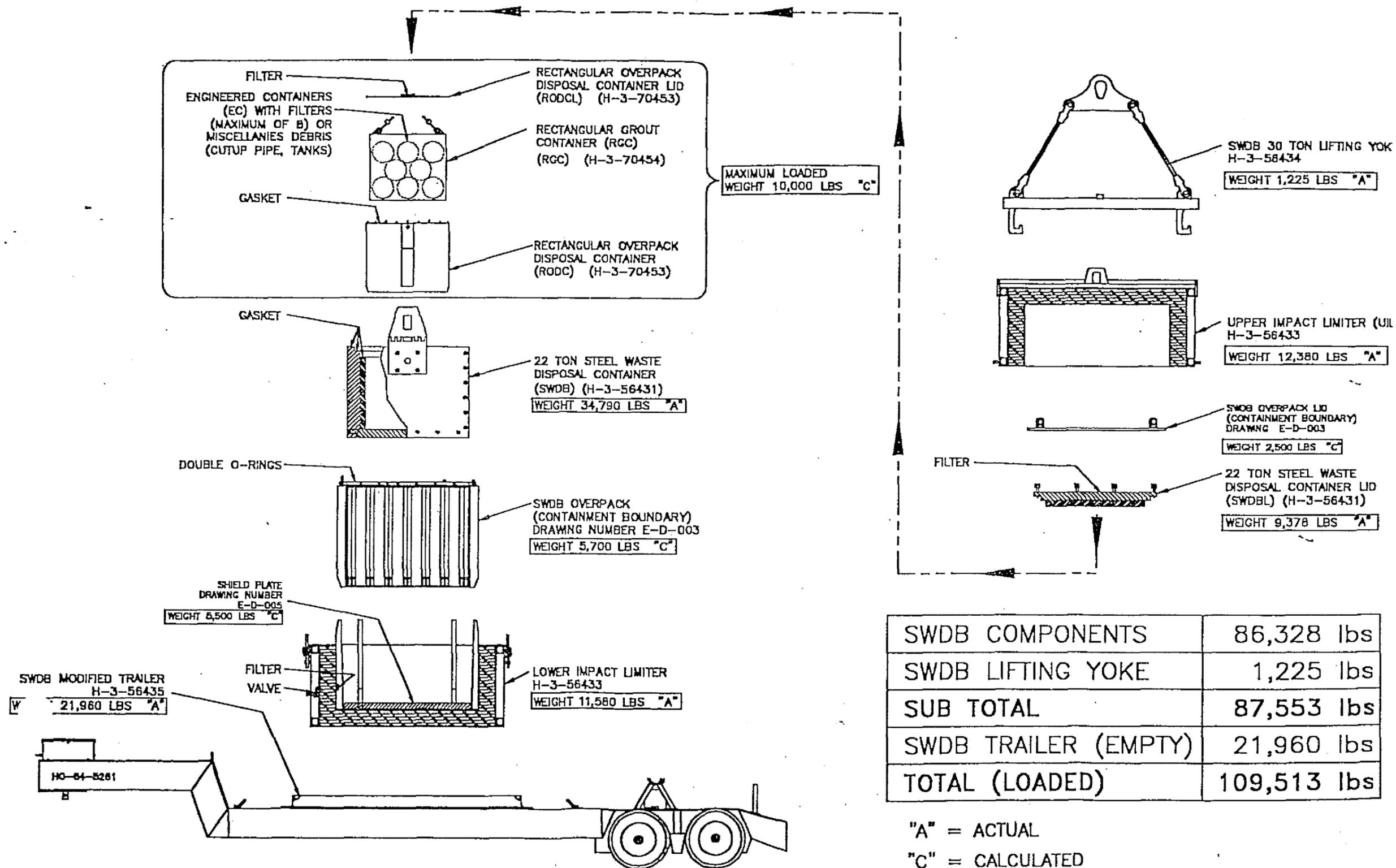
Ecology recognizes the challenges faced with cleanup up the 324 REC Complex. As stated earlier, Ecology expects that all waste must be sent from the 324 REC Complex to compliant storage in the 200 Areas at Hanford in order to fulfill the requirements of M-89-02. Ecology and DOE have recently discussed in detail the requirements for meeting M-89-02. Ecology has agreed to the following clarifications:

- Equipment identified in DOE's submittal of May 18, 2000 may remain in B Cell. These items will be needed for further cleanup of the 324 B Cell and therefore do not fall under the terminology of 'equipment' specified in M-89-02. Some or all of this equipment may require removal and disposal in order to meet M-89-00.
- All collected mixed waste must be removed from the 324 B Cell and placed in compliant, long-term storage in the 200 Area prior to the deadline established by M-89-02.
- The remaining waste removed from the 324 B Cell and currently stored in the 324 A Cell will be removed to compliant, long-term storage in the 200 Area of Hanford. The deadline for this activity will appear as a DOE milestone for the next fiscal year (2001) and will occur within 8 months after the completion date required by TPA Milestone M-89-02.

Ecology will consider M-89-02 met if these conditions are satisfied.

Attachment 7 – Rectangular Grout Container (RGC) drawing

WEIGHTS OF STEEL WASTE PACKAGE COMPONENTS



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**ADMINISTRATIVE RECORD (two copies): 324 REC/HLV Closure Plan, S-3-4
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