

START

9613390.2567

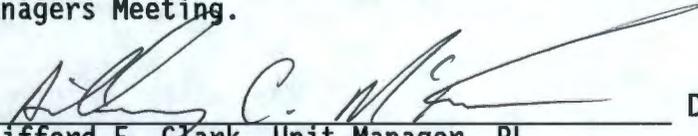
0042803

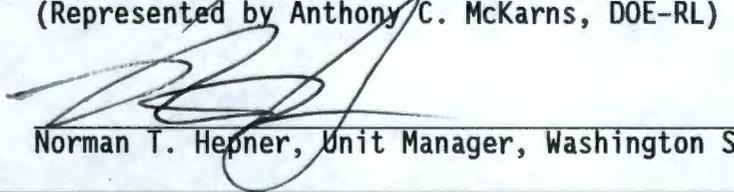
17
2

**LOW-LEVEL BURIAL GROUNDS
Unit Managers Meeting
2440 Stevens Ctr., Room 2100
Richland, Washington**

**December 6, 1995
2:00 p.m. - 4:00 p.m.**

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


Date: 1/23/96
Clifford E. Clark, Unit Manager, RL
(Represented by Anthony C. McKarns, DOE-RL)


Date: 1/16/96
Norman T. Hepner, Unit Manager, Washington State Department of Ecology

Low-Level Burial Grounds, WHC Concurrence


Date: 1/16/96
Richard D. Pierce, Contractor Representative, WHC
(Represented by Brett M. Barnes, WHC)

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 - Draft Responses to 5 remaining NODs



Attachment 1

**LOW-LEVEL BURIAL GROUNDS
Unit Managers Meeting
2440 Stevens Ctr., Room 2100
Richland, Washington**

**December 6, 1995
2:00 p.m. - 4:00 p.m.**

AGENDA

1. **PREVIOUS MEETING MINUTES**
 - November 1, 1995, Meeting Minutes
2. **PROGRAM STATUS**
 - Pump and Treat Status (R. Mercer - WHC)
3. **PERMIT APPLICATION STATUS**
 - Part B NOD Workshop Schedule (G. Cummins - WHC)
4. **RCRA TOPICS - NOD WORKSHOP**
 - NOD Five Remaining Issues Response Letter
 - Chapter 1 - Draft LLBG Part A Rev. 8
5. **GENERAL TOPICS**
 - Past Action Items
 - UMM Meeting:
 - 10-27-93:1 Pump and Treat Status (RL/WHC)
 - 11-1-95:1 Schedule a technical meeting to discuss Response Action Plan engineering technology (RL/WHC)
 - 11-1-95:2 Provide a letter approving Response Action Plan (Ecology)
 - NOD Resolution Meeting:
 - 11-1-95:1 Forward White Paper on 11/87 date to respective legal departments for resolution (RL/WHC/Ecology)
 - 11-1-95:2 Arrange for discussion on lead shielding at the RIPI Council meeting (RL/WHC)

9613390.2569

- 11-1-95:3 Provide Hanford Facility Permit General Information Volume Presentation to Ecology (RL/WHC)

- New Action Items

6. SCHEDULE NEXT MEETING

- Tentative Date
- Proposed Topics

Attachment 2

LOW-LEVEL BURIAL GROUNDS
Unit Managers Meeting
2440 Stevens Ctr., Room 2100
Richland, Washington

December 6, 1995
2:00 p.m. - 4:00 p.m.

Summary of Discussion and Commitments/Agreements

1. PREVIOUS MEETING MINUTES

The November 1, 1995, Unit Managers Meeting minutes and the Notice of Deficiency meeting minutes were approved.

2. PROGRAM STATUS

• Pump and Treat Status

Mr. R. Mercer (WHC) gave an update on the status as follows: The new extraction well was completed. Aquifer testing will start in two weeks. A numerical model for the 200 West Area was just completed and an 18-foot mound may develop at the extraction well. The demonstration project is continuing. Bechtel Hanford is drilling a new injection well.

3. PERMIT APPLICATION STATUS

• Part B Notice of Deficiency (NOD) Workshop Schedule

Ms. G. Cummins (WHC) stated the NOD Workshops are a couple weeks behind. A workshop was scheduled for December 19, 1995, to review Chapters 2 and 7 and unresolved Part A (Chapter 1) issues.

4. RCRA TOPICS - NOD WORKSHOP

• NOD Five Remaining Issues Response Letter

Ms. A. Crowell (RL) provided Ecology with the "Draft Responses to 5 remaining NODs" (Attachment 5). Ms. Cummins instructed attendees to review it in preparation for the next meeting.

• Chapter 1 - Draft LLBG Part A Rev. 8

Mr. N. Hepner (Ecology) had questions regarding the Draft Part A. He questioned the design capacity increase. Ms. Crowell identified the maps and calculations used for the capacity which helped to clarify the increase.

Mr. Hepner was concerned the leachate storage design capacity was not large enough. He indicated WHC should not have to pump

24 hours a day. Mr. K. Johnson (WHC) and Mr. D. Pratt (WHC) agreed to review what is presently available and calculate what additional tank storage would be needed. The revised leachate storage tank capacity will be provided at the December 19th workshop.

Mr. Hepner made reference to the qualifying codes for F039. The language in the LLBG Part A states that only F001 through F005 will be used. Ms. Crowell said the delisting petition for the 200 Area Effluent Treatment Facility would probably not be amended. She added that the fiscal year work plan has a task of looking at alternate ways to handle leachate, and should be completed by March. Ms. Crowell stated there is a problem with restrictions on where leachate can be sent. Mr. B. Barnes (WHC) said a sentence would have to be deleted from the Part A to solve this problem. It was agreed that the language would be reworded to allow more freedom to add other listed waste numbers (e.g., "U," "P," and other "F").

Mr. Hepner asked if covers were being installed over the leachate storage tanks. Messrs. Johnson and Pratt informed Mr. Hepner that the tanks were being covered, and that they had received the necessary approvals from the Fire Department, the hygienists, etc.

A copy of the Part A reflecting these proposed modifications will be made available at the December 19th workshop for discussion, along with Chapters 2 and 7.

5. GENERAL TOPICS

- **Past Action Items**

UMM Meeting:

Action item 10-27-93:1, Ms. Cummins asked if an update on pump and treat status is still helpful at the Unit Manager Meetings. It was decided the action item would be closed and an item on groundwater monitoring status would be added to the agenda as needed.

Action item 11-1-95:1, On scheduling a technical meeting to discuss Response Action Plan engineering technology, a discussion is planned for December 19, 1995.

Action item 11-1-95:2, a draft letter approving Response Action Plan will be complete after December 19, 1995.

NOD Resolution Meeting:

Action item 11-1-95:1, the White Paper on the November 23, 1987 date for regulatory authority of mixed waste was delivered to the respective legal departments. Ms. Cummins proposed this action be closed, but Mr. Hepner stated that by December 19th, Ecology legal department will provide their input.

Action item 11-1-95:2, Ms. Cummins stated that Mr. R. Bowman (WHC) had started work on informing the RIPI Council of the lead shielding issue.

Action item 11-1-95:3, Ms. Cummins stated that 12 working draft copies were sent to Ecology on November 28, 1995. This action item is closed--no plan to do a presentation.

- **New Action Items**

Look at the amount of storage tanks currently being used and calculate what would be realistically needed.

Revise the Part A to be discussed at the December 19th workshop.

6. SCHEDULE NEXT MEETING

- **Tentative Date**

A workshop was scheduled for December 19, 1995, at 7:30 a.m. The next Unit Managers Meeting was scheduled for January 16, 1996.

- **Proposed Topics**

Proposed topics for discussion include: (1) closeout of Chapters 1, 2, and 7; (2) action leakage rate, and (3) provide comments on draft Mod letter.

Attachment 4

LOW-LEVEL BURIAL GROUNDS
 Unit Managers Meeting
 2440 Stevens Ctr., Room 2100
 Richland, Washington

December 6, 1995
 2:00 p.m. - 4:00 p.m.

Action Items

UMM Meeting:

Action ItemDescription

10-27-93:1

Schedule a technical issues meeting for RCRA/CERCLA integration and discussion of pump and treat evaluations.

CLOSED

11-01-95:1

RL/WHC will schedule a technical meeting to discuss the Response Action Plan engineering technology within the next month.

OPEN

11-01-95:2

Ecology will write a letter approving the Response Action Plan

OPEN

NOD Meeting:

11-01-95:1

Forward White Paper on 11/87 date to respective legal departments for resolution.

OPEN

11-01-95:2

Arrange for discussion on lead shielding at the RIPI council meeting.

OPEN

11-01-95:3

Provide Hanford Facility Permit General Information Volume Presentation to Ecology.

CLOSED

9613390.2575

Attachment 5

**LOW-LEVEL BURIAL GROUNDS
Unit Managers Meeting
2440 Stevens Ctr., Room 2100
Richland, Washington**

**December 6, 1995
2:00 p.m. - 4:00 p.m.**

DRAFT RESPONSES TO 5 REMAINING NODs

DRAFT Responses to 5 remaining NODs.

1. Waste Acceptance Criteria -- In the response to Notice of Deficiency (NOD) #14, Ecology was informed that there is a new, state-of-the-art portable high energy radiography unit which was to be tested early in 1994 for its capability to detect liquids in lead-shielded waste packages. A report and current status of this technology should be provided. Additionally, provide an estimate of the number of packages containing lead as shielding and the percentage of these packages that will be assessed for presence of liquids.

Although NOD #14 was originally limited to detecting liquids that may inadvertently get into the trenches, it is applicable to all packages. In the Hanford RCRA Permit, we are requiring the 305-B and 616 Storage Units to perform limited waste verification on 5% of shipments generated on-site. (See Conditions III.1.B.f., III.1.B.n., III.2.B.d., and III.2.B.f.). It is proposed that on-site waste received at the LLBG also be subject to 5 % verification, and that off-site waste be subject to 10 % verification. It is also proposed that the Submarine Reactor Compartments (SRCs) be exempt from physical verification at the Hanford Site since the U.S. Department of Energy (DOE) performs verification at the storage units.

RL Response to #1:

y The portable high energy radiography unit which was utilized by an WHC subcontractor to support Tank Farms Backlog Waste designation preformed well. Current plans are to equip the Waste Receiving and Processing (WRAP) Module 1, when operational, with two radiography technologies (linear array and real time) that will be used in waste verification for both low-level and mixed waste. The linear array provides a full-length image of a drum and the real time provides a 22.86 centimeter (9 inch) closeup view of any suspect items or areas within the drum. The box system in WRAP Module 1 only has real time radiography. The extent to which either of these systems can penetrate lead shielding depends on thickness, but in general lead shielding prevents quality radiographic review.

y An estimate of the number of packages that contain lead as shielding is difficult to provide as shielding is incorporated into the packaging on an as needed basis. The vast majority of RCRA regulated waste received for disposal at the LLBG which contain lead as shielding will be in the form of Naval vessel reactor compartments or SRCs. The second major grouping of lead shielded waste is non-RCRA radioactive waste only (i.e. low level). The final grouping of waste containing lead as shielding is RCRA regulated mixed waste. This is anticipated to be a very small percentage (less than 1% by weight) of the total waste which contains lead as shielding.

In responding to Ecology's request for a percentage of lead shielded containers that will be assessed for the presence of liquids, this also is difficult number to provide, however waste acceptance criteria is in place (WHC-EP-0063) which clearly states that containers with free

liquids are not acceptable for disposal in the LLBGs. Verification of these containers will be governed by waste acceptance criteria and verification requirements as well as ALARA considerations.

Ecology notes in their letter that it is proposed that on-site waste receipts be subject to a 5% verification requirement while off-site receipts are proposed to be subject to 10% verification. It should be noted that Washington State Dangerous Waste Regulations (WAC 173-303) do not specify specific waste verification requirements, but rather require the owner/operator to confirm his knowledge about a dangerous waste...to insure that the waste is managed properly. Currently, RL is fulfilling this requirement by performing waste verification on 5% for the waste packages received at the Low-Level Burial Grounds. The waste verification program is described in WHC-IP-1159, Verification Program Manual for Solid Waste Disposal Facilities. Based on waste projections for FY 1996, approximately 200 waste packages will be undergo NDE at TRUSAF and 10 packages will be opened at T Plant. Where ALARA is a concern, verification might be accomplished at the point of generation.

The proposed off-site 10% verification requirements does not appear to be regulatorily based. DOE is interested in Ecology's regulatory basis for this proposal, as well as Ecology's cost benefit analysis and evaluation of furthering the protection of the environment. DOE is willing to discuss any proposal that makes sense and improves the utilization of tax payer funding.

2. Use of Unlined Trenches -- There is a need to discuss the continued use of the unlined trenches in the LLBG for mixed waste disposal. DOE has used unlined trenches to dispose of mixed waste consistent with a January 26, 1988, strategy letter (see Appendix 4D of LLBG Permit Application). However, since that letter, more options have become available for mixed waste storage and disposal such as the lined LLBG trenches, grout vaults, and the Central Waste Complex.

Furthermore, DOE is assessing other disposal needs and options through a "Direct Disposal Options" team. Ecology proposes that the 1988 strategy be revised to reflect the approved final product of the Direct Disposal Options team. Since an agreed plan for using unlined trenches will probably not be attained by October 1995, we propose that the text of the permit application be modified to state that the use of unlined trenches will be based upon the strategy in Appendix 4D. This will allow an extra year to resolve this issue as a new strategy can be inserted into Appendix 4D just prior to DOE resubmitting the application in October 1996.

The following issues were raised through previous NODs and should be considered in developing the new strategy:

- Quantities and descriptions of mixed waste packages currently disposed in the trenches,
- Intent and need for using existing remote handled mixed waste trenches, and
- Need for liner and leachate collection systems.

In the past, Ecology has stated that a single liner and leachate collection for "drag off" and other existing trenches be used for mixed waste disposal after permitting (Federal Register 50, page 28708, column 3). Ecology understands that only one existing "drag-off" trench has previously accepted mixed waste (trench 9 of 218-E-10). Additionally, Ecology also requested that DOE identify which trenches received mixed waste after November 23, 1987. Ecology now proposes that we not attempt to establish the date of waste placement for each trench, but instead, focus on if, when, and how we will allow the continued use of unlined trenches. (Based on NOD Comments 1, 15, 16, and 122). The strategy developed will be the key element in addressing these questions.

RL Response:

DOE-RL has revised its projected future need for RCRA mixed waste disposal, and as such has decided to pursue final status RCRA permitting on only 3 of the available 8 burial grounds. None of the 5 burial grounds for which final status permitting is no longer sought have received RCRA regulated waste since the November 23, 1987 date referred to by Ecology.

In this revised strategy, DOE anticipates all disposal of RCRA regulated waste will be in fully compliant, lined trenches. If unique circumstances arise in which the placement of a RCRA regulated waste into an unlined trench made sense and was protective of human health and the environment, DOE will consult with Ecology and seek approval prior to any such disposal.

A draft LLBG disposal strategy letter currently is attached and will formally transmitted to Ecology prior to the January 1996 NOD workshop.

3. **Vadose Zone Monitoring** -- A vadose zone monitoring program should be included in the permit application. WAC 173-303-645 (9) (a) (ii) specifies evaluating the existence of waste constituents in the unsaturated zone beneath the waste management area. The appropriate approach includes characterizing the unsaturated zone, then modeling the migration of identified constituents (Based on NOD Comment 179).

We anticipate that a vadose zone monitoring plan could not be prepared by October 1995. Therefore, we recommend that our discussions focus on the need, both regulatorily and technically, for such a plan. If Ecology determines such a need exists, the application need only state that a vadose zone monitoring plan be developed and commit to a compliance schedule for developing and implementing such a plan.

RL Response to #3:

DOE is willing to discuss any proposal that makes sense and improves the utilization of tax payer funding. However, where proposals are not regulatorily based, there needs to be clear evidence as to the benefit. As there are no regulatory drivers for vadose zone monitoring and the three burial grounds identified in the Part B Permit Application all have a RCRA-compliant groundwater monitoring systems, some additional benefit needs to be available for this to "make sense".

Currently DOE is engaged in a restructuring of the overall Hanford Site Groundwater Monitoring approach and integration between RCRA/CERCLA monitoring programs. This restructuring is certain to impact the LLBG and any detailed discussion on LLBG groundwater or vadose zone monitoring prior to this groups development of a path forward would be premature and counterproductive. Additionally, RL is working with Ecology in regards to integration of 200-ZP-1 Pump and Treat Activities and RCRA monitoring at the 218-W-4C Burial Ground.

4. Trench Closure Timing, Design, and Integration -- Ecology is primarily concerned that there is unnecessary delay in covering unlined trenches containing mixed waste until DOE fills unused portions of unlined trenches with radioactive wastes. Closure schedule, interim covers, order of filling trenches, covering units with unfilled trenches, delaying covering because of waste retrieval needs, difficulty in covering because of overlap onto existing structures, etc., need to be fully identified, examined and finalized where possible for the permit application.

We propose that DOE funding be aimed at expediting the covering of unlined trenches. Additionally, a thorough review should be completed of the filling sequence to assess the possibility of eliminating non-mixed waste areas from the application by altering the trench filling sequence (Based on NOD Comments 210 and 225). It is anticipated that some of these issues can be resolved by October 1995.

RL Response to #4:

RL recognizes the concerns raised in this issue. There are some factors, however, that sufficiently mitigate Ecology's concerns. As you know, the LLBG are located in a semi-arid environment. The region's negative evapotranspiration rate reduces the potential of liquids from seeping into the soil. Additionally, no releases from the LLBG to the environment have been detected since completion of the RCRA-compliant ground water monitoring system seven years ago. Furthermore, temporary closure would provide no greater protection to human health and the environment than the management practices currently in place, and are a costly interim measure.

Consequently, RL intends to close the burial grounds upon completion of the following activities:

- y Retrievable TRU waste would be removed
- y Trenches containing removed TRU would be refilled with LLW
- y The burial ground would be filled to capacity
- y An assessment would be conducted to determine if closure of the burial ground will impact operable units, buildings, or other structures and their operation

- y Closure caps or other approved closure technologies would be evaluated to assure adequate protection to human health and the environment per unit cost.
- Coordination with the closure of the inactive burial grounds.
5. Submarine Reactor Compartment (SRC) Performance Plan -- Ecology will be meeting with the DOE and U.S. Navy to discuss the need for the SRC Performance Plan. At this time, the SRC Performance Plan should be finalized. Ecology proposes exploring alternative actions (e.g. interim cover, etc) in lieu of a performance demonstration. It is expected that this issue can be resolved with DOE prior to October 1995, for incorporation into the application.

Additionally, Ecology maintains that the liner exemption request for the SRC trench should be a part of the application and not a "supplement" to the application. Approval of the liner exemption request would then be obtained concurrently with permit issuance. This issue can be resolved prior to October 1995.

RL response to be provided in the formal submittal.

9613390.2581

Mr. Doug R. Sherwood
Hanford Project Manager
U.S. Environmental Protection Agency
Region 10
712 Swift Boulevard, Suite 5
Richland, Washington 99352

Mr. Michael A. Wilson, Program Manager
Nuclear and Mixed Waste Program
State of Washington
Department of Ecology
Post Office Box 47600
Olympia, Washington 98504-7600

Dear Messrs. Sherwood and Wilson:

STRATEGY LETTER FOR THE DISPOSAL OF MIXED WASTE IN THE LOW-LEVEL BURIAL
GROUNDS

In response to a letter from Mr. N. T. Hepner, State of Washington Department of Ecology (Ecology), to Mr. C. E. Clark, U.S. Department of Energy, Richland Operations Office (RL), "Five Remaining LLBG Notices of Deficiency," dated June 1, 1995, requested that RL develop a disposal strategy for mixed waste disposal in unlined trenches of the Low-Level Burial Grounds (LLBG). A disposal strategy is included with this correspondence. This disposal strategy supersedes a previous disposal strategy letter from Mr. R. D. Izatt, RL, and Mr. R. E. Lerch, Westinghouse Hanford Company (WHC), to Mr. R. S. Stanley, Ecology, and Mr. J. O'Hara, U.S. Environmental Protection Agency, "Hanford Solid Radioactive Mixed Waste Storage Facility Strategy," dated January 26, 1988.

The LLBG are identified as a landfill, divided into eight burial grounds. Six burial grounds are located in the 200 West Area and two burial grounds are located in the 200 East Area. In 1988, the Hanford Facility had extremely limited Resource Conservation and Recovery Act (RCRA) storage or minimum technical standard (MTS) facilities for mixed waste disposal. The January 26, 1988, letter provided the Hanford Facility with operating flexibility to safely handle mixed waste. Today, the LLBG include RCRA compliant double-lined trenches with leachate collection and removal systems

Messrs. Sherwood and Wilson

-2-

that meet or exceed the Title 40, Code of Federal Regulations (CFR), Part 264 MTS, and unlined trenches of various sizes and depths for radioactive only waste. All mixed waste destined for disposal in lined trenches will meet land disposal restriction requirements in Title 40, CFR, Part 268. In short, the operation of lined and unlined trenches will be in compliance with the Title 40, CFR and the Washington Administrative Code 173-303 regulations.

Should you have any questions regarding the LLBG disposal strategy, please contact Mr. R. F. Guercia, RL, on (509) 376-5494 or Mr. C. E. Clark, RL, on (509) 376-9333.

Sincerely,

Thomas K. Teynor, Director
Waste Program Division

Enclosure:
Disposal Strategy for Unlined
Trenches of the LLBG

cc w/encl:
R. Bowman, WHC
D. Duncan, EPA
W. Hamilton, Jr., WHC
N. Hepner, Ecology
M. Jaraysi, Ecology
R. Jim, YIN
D. Lundstrom, Ecology
R. Pierce, WHC
D. Powaukee, NPT
S. Price, WHC
J. Wilkinson, CTUIR
Administrative Records, H6-08

Distribution:

L. D. Arnold	WHC	B2-35*
B. M. Barnes	WHC	T3-04
R. C. Bowman	WHC	H6-24*
B. J. Broomfield	WHC	T3-04*
S. E. Campbell	WHC	T4-05*
R. M. Carosino	RL	A4-52*
C. E. Clark	RL	A5-15
A. K. Crowell	RL	S7-55
G. D. Cummins	WHC	H6-24
N. P. Emerson	WHC	T4-03*
M. S. French	RL	S7-55*
R. J. Giroir	WHC	T4-05*
R. F. Guercia	RL	S7-55*
P. L. Hapke	WHC	T4-05*
G. D. Hendricks	GSSC	B1-42*
N. T. Hepner	Ecology	B5-18
S. Leja	Ecology	B5-18*
D. R. Lucas	WHC	G3-15*
P. J. Mackey	WHC	B3-15
A. C. McKarns	RL	A5-15
R. D. Pierce	WHC	T3-04*
D. B. Powell	WHC	T4-03*
D. A. Pratt	WHC	T4-03*
S. M. Price	WHC	H6-23*
L. T. St. Georges	WHC	H6-20*
H. T. Tilden	PNL	P7-79
RCRA File	WHC	H6-24

*cc:Mail

ADMINISTRATIVE RECORD: Low-Level Burial Grounds, D-2-9 [Care of EDMC, WHC (H6-08)]

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

Environmental Protection Agency Region 10, Seattle, Washington 98101,
Mail Stop HW-070 Records Center

Please send comments on distribution list to Gloria Cummins, WHC (H6-24),
(509) 372-2484.