

Internal Letter



Rockwell International

Date: December 9, 1980

No. 65463-80-126

TO: (Name, Organization, Internal Address)

· G. D. Forehand *HSF*
· Engineering Support
· 2750E/D241/200 East

FROM: (Name, Organization, Internal Address, Phone)

· W. G. Jasen
· Engineering Support
· 2750E/D249/200 East
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Subject: Inconsistencies in 218-W-4B Site Data

- Ref: (a) Engineering Report (D0101ER0101), G. W. Wilson/J. D. Hale, September 9, 1980
- (b) Site Characterization (218-W-4B) from RHO-CD-948, "Alternatives Study for the Long-Term Management of Defense Transuranic/Low-Level Waste at the Hanford Site, Richland, Washington", Environmental Engineering Staff, June 23, 1980
- (c) Rockwell Hanford Operations Internal Letter 65462-80-035, V. L. Hale to Those Listed, "Description of Waste Buried in Site 218-W-4B", September 10, 1980
- (d) Rockwell Hanford Operations Internal Letter 65462-80-036, V. L. Hale to Those Listed, "Description of TRU Waste Buried in Site 218-W-4B", September 10, 1980
- (e) RHO-LD-80-24 2Q, "Summary of Radioactive Solid Waste Burials in the 200 Areas During the First Half of 1980", J. D. Anderson and B. E. Poremba, August 26, 1980
- (f) Summary of Site Physical Data (218-W-4B) by M. W. Gibson, report is contained in Rockwell Hanford Operations Internal Letter 65463-80-108, J. A. Thies to G. D. Forehand, "Transmittal of Site Data", October 31, 1980

Numerous inconsistencies concerning 218-W-4B site data contained in the above references have been identified. These inconsistencies, unless resolved, pose the problem of compromising the validity of data transferred to Health, Safety & Environment (HS&E) and Pacific Northwest Laboratory (PNL). These inconsistencies are outlined below:

1. Reference (a) reports that 218-W-4B contains 14 trenches and 12 caissons (5 alpha caissons, 6 non TRU caissons and 1 UNI caisson). Reference (a) reports that the alpha 5 caisson contains TRU waste.



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Reference (b) reports that 218-W-4B contains 13 trenches and one row of 13 caissons (6 alpha, 6 general, and 1 UNI caisson).

Reference (e) reports that 218-W-4B contains trenches and 11 caissons (4 alpha, 6 general, and 1 UNI caisson). This reference records inventories for only 4 alpha caissons.

Facility Change Notice Number 1407 (9/6/78) for drawing H-2-33055 reports that "excavation be extended to the west to allow installation of 2 caissons" (alpha caissons 4 and 5).

B. E. Poremba informed me that the alpha 5 caisson has been constructed but to date it has not been used.

To the best of my knowledge the 218-W-4B burial grounds is composed of 13 trenches and a row of 12 caissons. The 12 caissons include 5 alpha caissons, 6 general caissons, and 1 UNI caisson. Note that general caisson #6 is sometimes called the UNI 2 caisson.

2. Reference (a) reports that: trenches 1 through 6 and 8 contain Unsegregated Mixed TRU and Non-TRU Waste; trench 7 contains TRU Boxes and Drums; trenches 9 and 11 contain TRU wastes; and trenches 10, 12, and 13 contain Non-TRU wastes. It is not clear whether waste not designated as unsegregated is segregated.

Reference (b) reports that: trenches 1 through 5, 8 through 10, 12 and 13 contain unsegregated waste; trench 6 contains non-TRU segregated waste buried in 1971; trench V7 is used for TRU storage and trench 7 and 11 contain 20 year retrievable TRU waste.

Reference (c) identifies a few inconsistencies concerning segregated and unsegregated wastes.

Input to the Hanford Defense Waste (HDW) Environmental Impact Statement (EIS), concerning the stabilization option for the 218-W-4B site, involves retrieval of segregated wastes. The stabilization option currently includes retrieval of trench 7 and 11. The above inconsistencies should be resolved to lessen confusion concerning segregated/unsegregated wastes.

3. Reference (f) reports site 218-W-4B as being composed of 12 trenches, 1 drum module trench, and a row of 12 caissons. Reference (f) records an inventory for this drum trench based on information regarding segregated land burial as contained in Reference (e).



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Reference to a drum module trench is incorrect since information on segregated land burial includes solid waste disposal to trench 7 and 11.

4. Reference (d) reports a TRU waste inventory (buried after May 1, 1970) for trenches 7, V-7 and 11 of the 218-W-4B burial grounds as $1.13E5$ ft³ of waste containing $5.30E4$ grams of plutonium.

Reference (e) records the total segregated TRU waste inventory, including TRU segregated caisson waste (buried between 1970 and 6/30/80, as $1.13E5$ ft³ containing $4.84E4$ grams of plutonium. This reference reports the total TRU segregated plutonium waste for trenches 7, V-7 and 11 (excludes caisson waste) as $4.41E4$ grams.

The value for grams of plutonium contained in Reference (d) is larger than the value reported in Reference (e). It is not clear whether values contained in Reference (d) include unsegregated TRU waste inventories.

Engineering equipment and manpower estimates regarding stabilization and retrieval operations for the HDW-EIS are based on data contained in the above references. If these inconsistencies are not resolved the integrity of transmitted data could be compromised.

If I can be of any service regarding this matter feel free to contact me.

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