

 **ENTERED**

February 6, 2018

Mr. John Keiling,

Dear Mr. Keiling;

The State Permit Modification clarifying and distinguishing how waste is counted should clearly be a Class 2 Permit Modification. Counting physical waste versus counting total volume of an over pack, including substantial amounts of air, to meet the requirements for a Hazardous Waste Unit are volume counting processes for two very different purposes. The RCRA volume counting requirements for a Hazardous Waste Unit are for that specific unit and for all practical purposes the number of units under the Permit are unlimited and are intended to define the volume requirements of the unit. On the other hand, the "waste" volume for WIPP, as clearly stated in the Land Withdrawal Act, is a hard limit. That "waste" volume can be clearly determined by the inner container volume in any over pack, and it is routinely tracked by WIPP. In the PMR, pictures, schematics and volume difference calculations make it clear what the differences are between counting air and counting the waste in the inner containers.

This dual counting process is not complicated or requires any technical difficulty. Everyone knows the volume of every over pack and the volume of the inner containers.

This simple, uncomplicated, straight forward change in the PMR for dual counting meets every criteria to be considered as a Class II modification.

It would be tragic for waste at Los Alamos that meets the WIPP WAC to be left there because of WIPP being considered "full" do our counting air as waste and losing one-third of the waste volume capacity of WIPP.

This PMR should be considered as a simple, straight forward change in counting to reflect the actual volume of waste.

Best regards,



John Heaton

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180209.5


NMED WIPP VOLUME OF RECORD PMR

MAYOR'S NUCLEAR TASK FORCE PRESENTATION

3-6-2018

BY: JOHN HEATON, CHAIR

VOLUME OF RECORD CALCULATION PMR

- **STATE PERMIT FOR WIPP IS RCRA PERMIT (SOLID WASTE DISPOSAL FACILITY)**
- **SOLID WASTE FACILITIES REQUIRE A VOLUME OF WASTE DETERMINATION**
- **OUTER MOST CONTAINER BECAME THE VOLUME OF RECORD FOR RCRA PROVISIONS**
- **LAND WITHDRAWAL CAPACITY OF 175,000 CU M REFERS TO TRU WASTE CAPACITY**
- **THE CALCULATION OF RCRA VOLUME IS NOT THE SAME AS THE TRU WASTE VOLUME**
- **THEREFORE, THE PMR CLARIFIES DIFFERENCE OF RCRA VS LWA CALCULATION**
- **THERE IS NO RCRA LIMIT WHEREAS THERE IS A TRU WASTE LIMIT**

PIPE OVERPACK COMPONENT



Primarily used for shipping larger amounts of fissile material (<200g)

Outer volume: 208-liter
Inner volume: 50-liter

~26,000 emplaced

Outer volume: 5,224 m³
Inner volume: 1,250 m³

Difference: 3,974 m³

STANDARD WASTEBOX

Primarily used for over-
packing 208-liter drums



Outer volume: 1.8 m³

Inner volume : 0.8 m³

(four 208-liter drums)

12,075 emplaced

Outer volume: 21, 735 m³

Inner volume: 9,660 m³

Difference: 12,075 m³



TEN DRUM OVERPACK

Primarily used for overpacking 208-liter drums

Outer volume: 4.5 m^3
Inner volume : 2.1 m^3
(four 208-liter drums)

5,755 emplaced

Outer volume: $25,897 \text{ m}^3$
Inner volume: $11,510 \text{ m}^3$
Difference: $14,387 \text{ m}^3$

NON-WASTE VOLUMES FROM OVER-PACKING

	Emplaced Volume of Record	Inner Container Volume	Volume Capacity Used by non- waste volumes
TDOP	25,897	11,510	14,387
SWB	21,735	9,660	12,075
POC	5,224	1,250	3,974

30,436

2 Disposal
Panels of Air

CONTAINER FILL FACTOR ESTIMATES NON-WASTE VOLUME



100%

- APPLICABLE TO DIRECT-LOADED CONTAINERS ONLY
- 37,800 M³ DIRECT LOADED CONTAINER VOLUME
- AVERAGE FILL FACTOR: 71%
- NON-WASTE VOLUME (AIR + BAG-OUT PLASTIC): 11,000 M³



43%



184004 3/7/07 43% 90

37%



A12740 01/27/2005 37% 0

32%



0144 85 046 04/07/2004 32%

42%

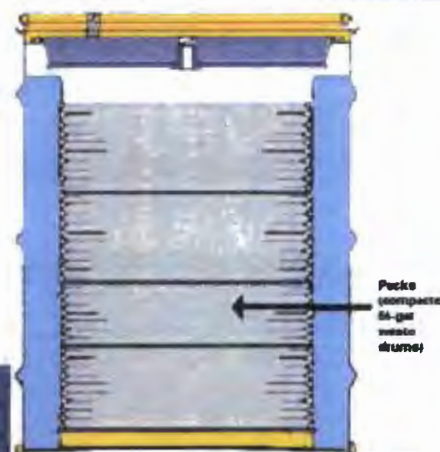


0402 212 417857 01/24/2003 42%

AMWTP DRUMS FROM INL OPTIMIZE DISPOSAL SPACE

100% filled with super-
compacted 208-liter
thin-walled drum
“pucks”

disposal space at WTP



safety + performance + cleanup + closure

CONCLUSIONS

- ❑ Volume counting for a Hazardous Waste Unit very different than actual TRU Waste volume to meet Federal Land Withdrawal Act Limits
- ❑ Counting volume of a HWU for RCRA and the LWA TRU Waste Limits different
- ❑ Overpacks are for safety, transportation and handling purposes and NEVER intended to reflect inner containers waste content
- ❑ As described, counting very simple. Volume differences very clear.
- ❑ Records are very complete to enable report
- ❑ The simplicity and ease of understanding defines this as a Class II PMR
- ❑ It would be a shame for Los Alamos, as an example, to lose access to WIPP because we are counting air.