

From: Kliphuis, Trais, NMENV
Sent: Wednesday, February 08, 2012 3:49 PM
To: Allen, Pam, NMENV
Subject: FW: Shielded Containers

For the record

From: Kliphuis, Trais, NMENV
Sent: Thursday, February 02, 2012 1:32 PM
To: Kehrman, Bob
Cc: McCauslin, Susan - DOE; Chavez, Rick - RES; Basabilvazo, George - DOE
Subject: Shielded Containers

Greetings,

Below are portions of the internal initial analysis regarding the shielded containers and the technical adequacy of the PMR. Please note some of this may not be accurate or relevant at this time. Let me know if you have questions.

The following questions pertain to the shielded containers and container management practices:

- a. Part 3: The PMR states that shielded containers will be managed in the same manner as CH containers when accepted at WIPP. Is modification of Table 3.1.1, WHB Unit, required to address management of the shielded RH containers?
- b. Part 3, Section 3.1.1.9 and 3.1.1.10. Section 3.1.1.9 states that all RH waste will be stored in the RH Complex [Permit Attachment A1, Section A1-1(c)(1)]; please clarify whether the shielded RH containers will be stored with CH waste (Section 3.1.1.9). Also, the title of Section 3.1.1.10, RH TRU Mixed Waste Storage Time Limit, implies that the storage limitations apply to shielded containers; for clarity and if necessary, the section could probably be retitled to specify application of storage limitations to RH waste in canisters/casks (i.e. not shielded containers).
- c. Part 3, Table 3.1.2. It is assumed that the limits associated with Contact Handled containers in Table 3.1.2, Parking Area Unit, would include the shielded containers; is this assumption accurate? PMR should address this...?
- d. Part 3, Section 3.3: The Shielded Containers will be managed at WIPP in accordance with CH requirements and presumably in surface areas designated for CH waste. Would there be any special issues or necessary considerations if the shielded RH containers were found to be in poor condition while in an area where CH waste is managed-- would this impact maintenance, clean up, and drum management in the CH area if an issue arose with a shielded container?
- e. Part 4, Table 4.1.1. The Permittees propose modifications to Part 4 Table 4.1.1., removing the RH container equivalent calculations. For closed panels, removal of the information does not appear necessary since the container equivalency information is still pertinent.
- f. Attachment A, Section A1-1b(2). The Permittees added shielded containers to the description of allowable RH TRU Mixed Waste Containers, stating the shielding will allow RH waste to be "managed as CH TRU mixed waste". This language infers the waste will be considered CH TRU mixed waste;

however, it is clear that the waste will still be part of the RH inventory. For clarity, it may be better to indicate that the shielding will allow RH containers to be managed in the same manner as CH TRU mixed waste, rather than "managed as CH TRU mixed waste".

g. Attachment A, Section A1-1c. The Permittees propose no changes to Section A1-1c, but is it necessary to modify the HalfPACT discussion to include shielded containers and to clarify that not all RH waste will be managed in the RH complex?

h. Attachment A, Section A1-1d(3). The Permittees state that shielded containers will be "handled as CH TRU mixed waste", but Section A1-d(4) was also added that explicitly describes the management of shielded containers. For clarity, it would be better to state that shielded containers will be handled or managed consistent with CH practices, since the Permittees correctly recognize that some special consideration will be given to management of shielded containers (e.g. different dunnage, specified removal using a bridge crane, etc.).

i. Attachment A, Section A2-2a(1). This section is entitled CH TRU Mixed Waste Handling Equipment, but it also applies to RH shielded container management. To ensure that the section title reflects section contents, it could be retitled to indicate that the section also addresses RH containers to avoid the inference that the RH shielded containers contain CH waste. Please examine the rest of Attachment 2 for similar inferences.

j. Attachment A, Section A2-2b. PMRs for Section A2-2b imply that the shielded containers would be considered part of the CH inventory; it is understood that DOE does not intend to manage RH waste in RH shielded containers as part of the CH inventory, but elements of the PMR and in particular section titles infer the opposite. It is suggested that the title of this section could be revised to state: CH TRU Mixed Waste and RH Shielded Container Emplacement. Similarly, the following title could be modified: RH TRU Mixed Waste Emplacement should be changed to RH TRU Mixed Waste Emplacement in Canisters. This change would clarify the perception that the shielded containers are considered CH waste.

k. Attachment C1: For clarity, the term "shielded containers" could be revised to "shielded RH containers" here and throughout to ensure no confusion as to the contents of these containers. See Attachment A of this deliverable for additional information and commentary pertaining to the DAC determination for shielded RH containers.

l. Attachment C7: How does the presence of lead impact the ability of the Permittees to meet C7 permit requirements for the RH shielded containers? Will these containers undergo visual examination rather than RTR, and does it impact in any way the ability of the site to comply with the Permittees confirmation requirements since the drums will be managed as CH waste but will contain RH waste? How does the requirement to visually examine waste affect the speed at which the characterization may take place, since this the PMR states that the major justification for the use of shielded containers is to reduce "time and personnel" expenditures? Or is the time and personnel savings related to management at the WIPP site and not the generator site, as the RH waste would require repackaging to put waste in the shielded containers? Please clarify.

m. Attachment D, Section D-4d(1), All Emergencies. This section includes a paragraph specifically addressing RH TRU Mixed waste, but the paragraph wasn't updated to address shielded RH containers. At a minimum, this paragraph should identify the use of shielded RH containers and reference how releases from those containers will be managed.

n. Attachment D, Section D-1(6) Control of Spills or Leaking or Punctured Containers of CH and RH TRU Mixed Waste, RH TRU Mixed Waste. The section addresses spills or leaks associated with canisters, but it does not address spill, leakage, or puncturing of shielded RH containers which also contains RH TRU Mixed Waste. The section should be revised to address how spills, leaks or punctures of shielded RH containers will be addressed. If the shielded RH containers will be addressed in the same manner as CH containers, the section should be revised to clarify this.

o. Attachment E, Section E-1b(1). As in previous sections, the container inspection criteria should state that shielded RH containers still contain RH waste, even if those containers are managed in the same manner as CH containers. The PMR language states that waste "will be managed as" CH waste or RH waste, when the intent is that both RH and CH waste will be managed using CH waste management practices. As written, it could be inferred that because shielded RH containers are managed as CH waste they would be considered CH waste, which is not the case.

p. Attachment G, Tables G3-2 and G3-3. Please identify the appropriate procedure(s) used for shielded RH containers.

2. Identify that the modification is a Class 2 modification [20.4.1.900 NMAC (incorporating 40 CFR §270.42(b)(1)(ii))].

The Permittees indicate that the modification deals solely with the addition of a new container to manage existing accepted waste, so the modification is a Class 2 because "there is no need for specialized waste management equipment nor is there any increase in the proposed storage area in the Waste Handling Building for managing shielded containers. NMED processed and approved these containers and shipping packages as Class 2 PMRs. Therefore, this is a Class 2 as specified in 20.4.1.900 NMAC (incorporating 40 CFR, §270.42(b)), Appendix I, Item F.3.b which states: "*Storage of different wastes in containers, That do not require additional or different management practices from those authorized in the permit. "...*".

The waste to be managed in the new container is no different than waste currently managed in the facility. NMED has accepted other container modification requests as Class 2 changes. The Permittees correctly included modifications to the permit to describe the management and movement of these new containers in the subsurface, and the containers themselves require some special disposal configuration considerations due to the excessive weight of the containers. See Items 3 and C, below, for additional information.

3. Explain why the modification is needed [20.4.1.900 NMAC (incorporating 40 CFR 270.42(b)(1)(iii))].

The Permittees state that the modification is needed because "The use of the shielded containers will enable the DOE to reduce the time and personnel necessary for the packaging and management of specific RH TRU mixed waste that will meet the surface dose rate limitations for CH TRU mixed waste." However, PMR should elaborate on how the use of shielded containers will "reduce the time and personnel necessary for the packaging and management of specific RH TRU mixed waste...". For example, the PMR does not specify whether these cost and time savings will occur at the generator site and/or at WIPP. The time and personnel reductions should be more thoroughly presented, both at the WIPP and generator sites (assuming the savings applies to both), including personnel reduction, savings associated with the characterization process (e.g. visual examination during repackaging vs. other methods). Perhaps, clarify how the management of RH waste in shielded containers will reduce time and personnel since the waste may undergo packaging/repackaging similar to the processes currently used, and will undergo the same characterization methodologies prior to shipment (i.e. by reducing the management associated with RH casks).

4. Provide the applicable information required by 40 CFR §270.13 through §270.21, §270.62 and §270.63 [20.4.1.900 NMAC (incorporating 40 CFR §270.42 (b)(1)(iv))].

The PMR states: "The attached regulatory crosswalk describes those portions of the WIPP Permit that are affected by this PMR. Where applicable, regulatory citations in this modification reference Title 20, Chapter 4, Part 1, NMAC, revised March 2009, incorporating the CFR, Title 40 (40 CFR Parts 264 and 270). 40 CFR §270.16 through §270.22, §270.62, §270.63 and §270.66 are not applicable at WIPP. Consequently, they are not listed in the regulatory crosswalk table. 40 CFR §270.23 is applicable to the WIPP Hazardous Waste Disposal Units (**HWDUs**). This modification does not impact the conditions associated with the HWDUs." The cross matrix and proposed permit language modifications satisfy the intent of this requirement (see Item 1 above for additional comments).

Trais Kliphuis
WIPP Staff Manager
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive E, Building 1
Santa Fe, New Mexico 87505

Office: 505-476-6051
Fax: 505-476-6060
Front Desk: 505-476-6000