

US EPA ARCHIVE DOCUMENT



Department of Energy
Carlsbad Field Office
P. O. Box 3090
Carlsbad, New Mexico 88221
September 08, 2010

Mr. Mike Flynn, Director
Office of Radiation and Indoor Air
U. S. Environmental Protection Agency
1310 L Street, NW
Washington, D.C. 20005

Subject: Shielded Containers

Dear Mr. Flynn:

The purpose of this letter is to provide the Environmental Protection Agency (EPA) with additional information regarding shielded containers. In the Planned Change Request submitted to the EPA (November 2007), the United States Department of Energy (DOE) indicated that the shielded containers would be emplaced randomly and in a similar fashion as Contact Handled (CH) Transuranic (TRU) waste. This implied the shielded container (SC) assemblies would be emplaced in stacks three high with a sack of Magnesium Oxide (MgO) on top of each waste column.

DOE performed a waste handling demonstration to evaluate operational approaches regarding the emplacement of the SC assemblies in the underground. The results of the demonstration indicated that stacking the SC assemblies (three SC's per assembly) three high posed stability issues due to the relatively small footprint of the assembly. Consequently, the SC assemblies will only be stacked a maximum of two high (Figure 1). The demonstration also showed that the weight of the SC assembly has the potential to compromise the integrity of other containers, (e.g., see Figure 2 with the Standard Waste Box). Therefore, a SC assembly will be stacked only on another SC assembly. The final concern that became apparent during the demonstration was that when the MgO sack was placed on the SC assembly it would drape over the sides excessively and concerns arose about the possibility of the bag falling off the SC assembly and/or rupturing or tearing prematurely (Figure 3).

In a meeting with the EPA on July 29, 2010, DOE provided the results of the waste handling demonstration to EPA. Due to potential worker safety concerns identified in the DOE waste handling demonstration, EPA agreed that it will not require DOE to place an MgO sack on top of the SC assemblies.

DOE will continue to meet the 1.2 factor in a disposal room by monitoring the cellulose, plastic and rubber materials in the waste containers and placing MgO as needed prior to closing a disposal room.

Mr. Mike Flynn

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September 08, 2010

If you have any questions, please contact Susan E. McCauslin at (575) 234-7349.

Sincerely,



David C. Moody
Manager

Enclosure(s)

cc: w/enclosure

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