



Department of Energy
Carlsbad Field Office
P. O. Box 3090
Carlsbad, New Mexico 88221
October 30, 2002

 ENTERED

Mr. Steve Zappe
Hazardous Waste Permits Program
Hazardous Waste Bureau
New Mexico Environment Department
2905 E. Rodeo Drive Bldg. 1
Santa Fe, NM 87502-6303

RE: Comments, Concerns, and Questions from the RH Public Meeting October 3, 2002

Dear Mr. Zappe:

Attached please find our responses to comments, concerns, and questions from the RH public meeting held on October 3, 2002.

If further questions arise please feel free to contact me at your convenience at (505) 234-7407.

Sincerely,

A handwritten signature in black ink that reads "Roy M. Nelson for".

Dr. Clayton Gist
RH-TRU Program Manager

Enclosure

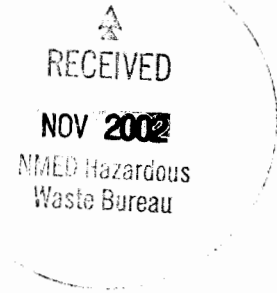
cc: w/enclosure
C. Walker, Techlaw

cc: w/o enclosure
J. Bearzi, NMED
J. Kieling, NMED





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**Comments, Concerns, & Questions
from the
RH Public Meeting
October 3, 2002
Santa Fe, NM**

- Q. How many additional trips will you have to make for RH TRU waste?
A. We currently estimate there will be 2,500-3,000 shipments. The last shipment of RH TRU legacy waste (waste already generated) is scheduled to be shipped to WIPP by the year 2015. The last of the *projected* volumes (waste to be generated) of RH TRU waste is planned for the year 2028.
- Q. What increase to the storage volume are you going to ask for?
A. We are requesting additional storage for RH TRU waste in the Parking Area Unit and the Waste Handling Building Unit. Currently, the Parking Area Unit allows 45 m³ of storage. We are requesting an additional 15 m³ of storage for a total of 60 m³. Currently the Waste Handling Building Unit allows 77 m³ of storage. We are requesting an additional 15.42 m³ of storage for a total of 92.42 m³. There is no request for increase in RH TRU waste disposal capacity.
- Q. What is the current surface storage time?
A. The maximum storage time is dependent on whether the waste is in the Parking Area Unit or the Waste Handling Building Unit.

The RH permit modification request (PMR) requests that the storage time be limited to the sealing time specified by the NRC in the Certificate of Compliance for the shipping containers. This change was made to accommodate the different NRC approved shipping containers that will be used, while maintaining the requirement that the sealing time be limiting on the storage.

The RH PMR seeks a maximum storage time of 60 days in the Waste Handling Building Unit for RH TRU waste shipped to WIPP.

- Q. What class modification will the proposed change fall into?
A. The RH permit modification request has been submitted as a Class 3 permit modification.

Q. What have you discussed with the NMED?

A. The DOE has had meetings with the NMED as well as other meetings where the NMED was present (e.g., National Academy of Science (NAS) RH TRU waste characterization program review meetings). The primary focus at these meetings has been the proposed approach for waste characterization. The WIPP has also engaged the NMED in discussions on specific topical areas such as the RH TRU facility changes, the known and projected RH TRU waste inventory throughout the DOE complex, the acceptable knowledge process, and characterization of waste at the time of packaging. In addition, the DOE made draft copies of the RH permit modification request available to the public and the NMED during its development.

Q. How would you compare RH and CH shipping containers?

A. Both containers are NRC approved shipping containers and have met a series of rigorous testing to ensure the integrity of the container. The primary difference between the RH and CH shipping containers is that the RH shipping containers have greater shielding integrated into the container.

Q. Why does this need to be remote-handled?

A. The RH TRU waste is remote handled based on the dose rate at the surface of the individual waste containers. The RH TRU waste has more penetrating radiation (gamma emitters) than CH TRU waste. Some radiation such as alpha and beta may be stopped by a thickness of a piece of paper or a layer or two of plastic, however, the gamma rays in the RH waste can penetrate the layers of the containers. Therefore, greater shielding is required to achieve protection from radiation exposure.

Q. If shielding is breached then you are in trouble, unlike with CH?

A. The RH TRU waste handling process is designed to have the waste containers shielded at all times. No credible scenario has been identified where the shielding would be breached during the waste handling process at the WIPP. However, the consequences of a shielding breach would be more severe for RH TRU waste.

Q. How does all that stuff get contaminated?

A. The waste is contaminated with radionuclides and hazardous constituents as a result of defense-related activities. The use of hazardous materials in these activities results in hazardous waste being generated once the material is discarded or becomes inherently waste-like.

Comment

There was a request for a transportation expert to attend the next RH public meeting. Also, a request was made for the modeling results from NRC on the impact testing of the RH shipping casks.

Response

Both the CNS 10-160B and RH-TRU 72-B utilized NRC Regulatory Guide 7.6, *Design Criteria for the Structural Analysis of Shipping Cask Containment Vessels*, and NRC Regulatory Guide 7.8, *Load Combinations for the Structural Analysis of Shipping Casks*, to show compliance with 10 CFR 71, *Packaging and Transportation of Radioactive Material*. The 72-B evaluation did rely on certain (125-B Cask 1/4-scale prototypic) drop tests since the 72-B design was based on the larger 125-B cask. The 72-B impact limiters were subjected to prototypic static tests using 1/2 scale versions. Two 1/2 scale test articles were subjected to static prototypic tests from which results were used to confirm the accuracy of the analysis. Two additional 1/2 scale test articles were subjected to dynamic prototypic tests. Again, the results were used to confirm the accuracy of the analysis. The dynamic testing also confirmed the dynamic integrity of the impact limiter and its attachment to the cask in an impact event. Impact testing analysis of the CNS 10-160B included structural evaluations (Chapter 2 of the RH SAR) and thermal or fire events (Chapter 3). Both shipping casks demonstrated package compliance with normal conditions of transport, hypothetical accident conditions, and special requirement for irradiated nuclear fuel shipments. More detail on the impact testing and analysis is found in section 2.10.8 of the RH-TRU 72-B Safety Analysis Report. An electronic copy of the RH 72-B Safety Analysis Report can be accessed on the Internet at: <http://www.wipp.ws> Click on "Document Center" in the blue header links and scroll down to "RH 72-B Cask." Next click the text : "Safety Analysis Report for the RH TRU 72-B Waste Shipping Package." This will bring up the PDF (portable document format) version of the RH 72-B Safety Analysis Report. You can automatically go to the section you wish by clicking on the links on the left.

The NRC considered shipping cask design description, the type and form of the material to be shipped, and the maximum quantity of material allowed per package. Each shipping package must be prepared, operated, tested, and maintained in accordance with their respective safety analysis reports.