US EPA ARCHIVE DOCUMENT

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC 7 2007

OFFICE OF
AIR AND RADIATION

Dave Moody, Ph.D., Manager
Carlsbad Field Office
P.O. Box 3090
Carlsbad, NM 88221

Dear Dr. Moody:

We have conducted a preparatory review of the Department of Energy's (DOE) remote-handled (RH) shielded container planned change request. In this request, DOE is proposing to emplace lead-lined waste containers (steel drums) with RH waste in disposal rooms in addition to placing RH waste in room walls as is presently approved. Based on our review of material submitted, as well as the information gathered during additional meetings and discussions, we do not believe that the current design of the containers and emplacement methods are sufficiently complete for us to begin our assessment.

Our preliminary review has identified initial comments (enclosed) on the shielded container planned change request. Please note our observations are general and we expect to provide additional questions and comments once we conduct a complete assessment of the proposed planned change request.

We understand that the US Nuclear Regulatory Commission and the US Department of Transportation will need to review and approve the shielded container proposals for compliance with their requirements. EPA believes it prudent to wait for the NRC and DOT findings, assumptions, and calculations before we make our final decision. Changes from those reviews may affect the results of your bounding Performance Assessment calculations, demonstration of compliance with our other requirements, and therefore, our review.

If you have any questions on this topic, please contact Tom Peake at (202) 343-9765.

Sincerely,

Juan Reyes

Juan Reyes, Director
Radiation Protection Division

December 2007

Comments on the Department of Energy's (DOE) Remote-Handled (RH) Shielded Container Planned Change Request

1. It appears that the design of the containers and emplacement methods may not be final. DOE awaits final Nuclear Regulatory Commission (NRC) and Department of Transportation (DOT) approval of the shielded containers. Therefore, assumptions such as the amount of lead and iron estimates and emplaced plastics materials may not be final. In addition, since any design changes may impact waste parameters (such as emplacement material estimate, the amount of RH waste allowed per container, or the quantity of lead assumed in the analysis), they may affect assumptions used in your performance assessment (PA) calculations.

2. The actual candidate remote handled (RH) waste inventory predicted to be emplaced in the waste rooms floors may also not be in its final state. It appears from your analysis that an upper bound of about 27% of the RH waste volume (1,922 out of 7,080 cubic meters) is a candidate for emplacement in the shielded containers in the disposal rooms. We believe that, once handling and shipping requirements are factored in, the volume of the RH waste eligible to be placed in the rooms will decrease—perhaps substantially.

3. The Documented Safety Analysis (DSA) has not been completed as noted at the public meeting. EPA is concerned that, because the emplacement of RH waste in shielded containers is a departure from the present WIPP system design, its review should be part of our decision-making. As we have noted in previous occasions, performance assessment calculations are not the only criteria used to support changes to the WIPP and therefore EPA's decisions.

4. EPA believes that the safety analysis needs to be completed to assure that the potential impact of possible releases are evaluated, and any potential impact on compliance with 40 CFR 191 Subpart A (releases during management and storage of radioactive waste) are also included in EPA decision-making process. An accident that includes a shielded container may have significantly greater releases then normal contact-handled waste previously considered. Therefore, any process that may effect RH waste containment in a shielded container will need to be thoroughly considered. Because of the apparent significance of any release related to RH waste placed in shielded container in a waste disposal room, we believe we should review the DSA before making our final determination on the shielded container proposal.

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