



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



April 15, 2003

Dr. Inés R. Triay, Manager
Carlsbad Field Office
U.S. Department of Energy
P.O. Box 3090
Carlsbad, NM 88221



OFFICE OF
AIR AND RADIATION

Dear Dr. Triay:

I am responding to the Department of Energy's (DOE's) letter of June 28, 2002, that requested approval by the Environmental Protection Agency (EPA) to permit newly generated and repackaged waste (hereafter referred to as "newly generated waste" for simplicity) to be characterized by Non-Destructive Examination (NDE) using the same technical methods that are currently applied to "retrievably stored" waste. Based on the additional information provided by DOE on November 27, 2002, and for the reasons set forth below, EPA is approving DOE's request.

In its letter of June 28, 2002, the DOE requested EPA approval of proposed changes to the current requirement for visual examination (VE) of 100% of newly generated transuranic (TRU) waste containers. DOE is seeking approval to have the option to perform NDE on newly generated TRU waste containers using radiography in a manner similar to the process used for some retrievably-stored TRU waste containers. The purpose of NDE is to estimate material parameter weights (metals, cellulose, plastics and rubber), verify waste matrix codes, and prohibited items (e.g. free liquids).

On September 6, 2002, EPA responded to the DOE letter of June 28, 2002, requesting additional information in the following areas:

1. The sites which might request to perform radiography in lieu of VE as the primary means of acceptable knowledge (AK) confirmation;
2. The conditions under which the Carlsbad Field Office (CBFO) would approve a request to use radiography in lieu of VE for newly generated waste and what criteria would be used to grant approval of such a request;
3. The process CBFO would use to notify the EPA of sites approved to perform radiography in lieu of VE;
4. A summary of mis-certification rates for radiography at sites with approved waste characterization programs; and
5. The percentage of drums subject to radiography which would undergo VE.

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On November 27, 2002, DOE provided the information requested by EPA and asserted the following:

- Any site with an EPA approved radiography program is eligible to use radiography in lieu of VE for newly generated waste using the same procedures that have been implemented for retrievably stored waste.
- Visual examination will be conducted on a subset of drums to confirm the results of radiography. The percentage of drums undergoing VE follows the same scheme established for retrievably stored waste, and is based on the mis-certification rate at the site.
- Mis-certification rates range from 1% (the minimum rate) to 6 %, a majority are 1% (11% is the default used for confirmatory measurements until one is calculated by each site based on its site specific performance).

Using this information, the Agency has determined that approving the use of radiography for newly generated waste is not considered to be a significant departure from the Waste Isolation Pilot Plant (WIPP) certification decision for the following reasons:

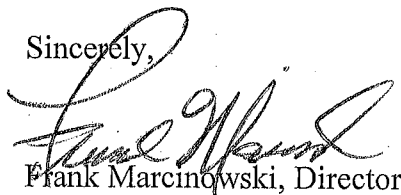
- The process to be used is identical to the one used to characterize retrievably stored TRU waste.
- Waste containers would still have 100% confirmation of acceptable knowledge.
- Existing quality control methods would apply, including the use of visual examination on a subset of drums to confirm the results of radiography.
- The mis-certification rate is expected to remain very low and will be tracked at each site.
- EPA will be able to inspect this process with the high degree of scrutiny that we apply to the current system.

Therefore, approval is granted subject to the DOE complying with the following conditions.

- A. DOE will instruct sites regarding the type of NDE data that must be generated and entered in the WIPP Waste Information System (WWIS) if such data are different than those obtained from radiography of retrievably-stored TRU waste.
- B. DOE will track separately in the WWIS RTR-derived Waste Material Parameters (WMPs) for newly-generated waste.
- C. Consistent with our current practice, EPA will inspect the complete characterization process including VE and Radiography, and must approve their use in accordance with § 194.8 prior to disposal of characterized waste at the WIPP.

If you or your staff have any questions regarding our decision, please contact Betsy Forinash at (202) 564-9233.

Sincerely,



Frank Marcinowski, Director
Radiation Protection Division

cc: Matthew Silva, EEG
Steve Zappe, NMED
WIPP Docket