

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

JUL | 2 2004

OFFICE OF AIR AND RADIATION

R. Paul Detwiler, Acting Manager Carlsbad Field Office U.S. Department of Energy P.O. Box 3090 Carlsbad, New Mexico 88221-3090

Dear Dr. Detwiler:

The U.S. Environmental Protection Agency (EPA) received the U.S. Department of Energy's (DOE) Compliance Recertification Application (CRA) for the Waste Isolation Pilot Plant (WIPP) on March 26, 2004. On May 20, 2004, we provided you with our first comments related to completeness of the CRA documentation. In our ongoing review, we have identified additional documentation needed to constitute a complete application.

Since the original certification decision, DOE has conducted a number of activities related to waste chemistry, such as the Source-Term Waste Test Program, gas generation experiments, and magnesium oxide (MgO) effectiveness studies. In addition, changes have been made to the treatment of waste chemistry in performance assessment calculations - notably, the introduction of organic ligands into the calculation of actinide solubilities. These activities and changes are incorporated by reference but not fully described in the CRA. Furthermore, a number of the relevant references were not provided to us with the application. Waste chemistry is central to the solubility (and, by extension, the transport) of radionuclides, and a thorough explanation of the changes is necessary to support and justify DOE's conclusions and revised performance assessment. We find that key references are needed to allow a full review of changes in the consideration of waste chemistry; a list of these documents is provided in the enclosure. In addition, our review of information related to waste characterization and quality assurance has identified additional information that must be provided; these items are also described in the enclosure.

> **ADDRESSEES** DATE REC'VD UNIQUE # DOE UFC 04 03930 5486 DOJUL 20 2004

Internet Address (URL) . http://www.epa.gov

If you have any questions, please contact Betsy Forinash at 202-343-9233.

Sincerely,

Elizabeth Cotsworth, Director

Office of Radiation and Indoor Air

## Enclosure

cc: Russ Patterson, DOE/CBFO
Lynne Smith, DOE/EM
Steve Casey, DOE/CBFO
Steve Zappe, NMED
EPA WIPP Team
EPA Docket