



Department of Energy
Carlsbad Field Office
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Carlsbad, New Mexico 88221

Ms. Elizabeth Cotsworth, Director
Office of Radiation and Indoor Air
U. S. Environmental Protection Agency
Ariel Rios Building, 6601J
1200 Pennsylvania Ave., N.W.
Washington, DC 20460

Subject: Hanford Tank and K-Basin Wastes

Dear Ms. Cotsworth:

I am responding to your December 17, 2004 letter in which the Environmental Protection Agency (EPA) asked for information on the Hanford tank and K-Basin wastes. Those wastes were identified in the transuranic (TRU) waste inventory used in Compliance Recertification Application (CRA) performance assessment calculations for the Waste Isolation Pilot Plant (WIPP).

The U.S. Department of Energy (DOE) believes the Hanford tank wastes and K-Basin wastes meet the definition of TRU waste set forth in the WIPP Land Withdrawal Act (LWA) of 1992, P. L. No. 102-579, 106 Stat. 4777, as amended by the WIPP LWA Amendments of 1996, P. L. 104-201, 110 Stat. 2422. Those wastes should not be considered high-level waste because they were not produced directly in reprocessing of spent nuclear fuel, they do not contain fission products in sufficient concentrations to require permanent isolation, and they contain more than 100 nanocuries of alpha-emitting TRU isotopes per gram of waste, with half-lives greater than 20 years. Likewise, we do not believe that the basin waste is spent nuclear fuel because of the origin of the waste and the chemical, radiological and physical properties of the waste.

DOE believes that the two enclosures to this letter demonstrate that these waste streams are transuranic. When treated and packaged as planned, DOE further believes that these waste streams would meet all legal and regulatory eligibility requirements for disposal at WIPP. Enclosure 1 provides additional information regarding the Hanford tank wastes. Enclosure 2 and its attachment provide information regarding the Hanford K-Basin sludge wastes.

DOE agrees with the EPA that the CRA is not the vehicle for establishing eligibility of particular waste streams for disposal at the WIPP. As you stated in your letter, the inclusion of wastes in a performance assessment or compliance application does not constitute approval for the waste to be emplaced for disposal. The Hanford tank and K-Basin wastes were included in the performance assessment for CRA as a best estimate of waste characteristics for WIPP repository performance modeling. Those wastes will not be

emplaced until it is determined to meet the WIPP Waste Acceptance Criteria, the EPA's 40 CFR § 194.22 and § 194.24 process, and other relevant regulatory requirements. In this regard, we would welcome discussion with you on establishing a separate mechanism for obtaining EPA input prior to final waste determinations on these and other materials.

If you have any questions, please contact me at (505) 234-7457.

Sincerely,

Russell Patterson
Certification Compliance Manager

Enclosures

cc: w/enclosure

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*ED denotes electronic distribution