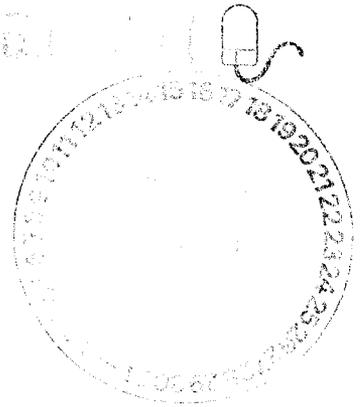




Department of Energy  
Carlsbad Field Office  
P. O. Box 3090  
Carlsbad, New Mexico 88221  
October 13, 2003



Ron Curry, Secretary  
New Mexico Environment Department  
Harold Runnels Building  
1190 St. Francis Drive  
Santa Fe, NM 87502-6110

Subject: Request for Information regarding Transuranic Waste

Dear Secretary Curry:

On October 7, 2003, we received a letter in which the New Mexico Environment Department (NMED) asserted that certain waste disposed of at the Waste Isolation Pilot Plant (WIPP) was "non-transuranic." This letter followed an October 3, 2003, press release regarding 98 drums of waste that were shipped from Los Alamos National Laboratory (LANL) and disposed of at WIPP between August 8 and September 12, 2003.

The DOE, through its National TRU Program (NTP), has established policies and procedures to implement the definition of transuranic (TRU) waste in the WIPP Land Withdrawal Act (LWA) of 1992. *Waste Isolation Pilot Plant (WIPP) Land Withdrawal Act (LWA) of 1992, Pub. L. No. 102-579, 106 Stat. 4777, as amended by the WIPP LWA Amendments of 1996, Pub. L. 104-201, 110 Stat. 2422.* The NTP implements this definition (i.e., waste containing more than 100 nanocuries of alpha-emitting transuranic isotopes per gram of waste, with half-lives greater than 20 years) by ensuring that each payload container disposed of at WIPP is greater than 100 nCi/g. Section 3.3.3 of the EPA-approved *Contact-Handled Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plan (CH-WAC)* describes the method for calculating the transuranic isotopic concentrations of payload containers. If the measured concentrations of individual drums or standard waste boxes (SWBs) within a payload container are above the Lower Limit of Detection (LLD), the actual measurement is used to calculate the concentration of the payload container; otherwise, a value of zero is assumed for the drum or SWB.

The EPA agrees that DOE's method for determining the concentration of transuranic isotopes in waste disposed of at WIPP is consistent with all applicable requirements. Specifically, EPA has stated: "The policy of making the TRU waste determination on the basis of payload containers is not precluded by the WIPP LWA, EPA's regulations, or DOE's policies and procedures. It is a reasonable interpretation of the applicable legislation and regulations, and is acceptable if implemented in a technically adequate manner." See *Letter from Mr. Frank Marcinowski to Dr. Inés Triay, dated August 8, 2003.* In its letter, the EPA further states that "containers shall be eligible for overpacking for load management only if they belong to waste streams that have been identified and managed as TRU waste." *Id.* This letter reflects that at the time EPA transmitted it to DOE, the EPA also provided a copy to Mr. Steve Zappe of your staff.

In the letter of October 7, 2003, NMED asserts that 3,350 drums disposed of at WIPP between January 24 and October 6, 2003, were "non-TRU mixed waste" and that EPA did not consider



the WIPP Hazardous Waste Facility Permit (HWFP) in reaching its conclusion that “making a TRU waste determination on the basis of payload containers is not precluded by the WIPP LWA, EPA’s regulations, or DOE’s policies and procedures.” The NMED also requested various background documents and asked DOE to provide justification for its past TRU waste determination practices. We believe that the information set forth herein addresses all of the questions and issues raised in the referenced letter.

We believe that it was unnecessary for EPA or DOE to have considered the WIPP HWFP in their analysis of this matter. For the sake of clarity and completeness, the permit recites a number of conditions and limitations on WIPP operations that are unrelated to RCRA and the New Mexico Hazardous Waste Act and therefore outside the State’s regulatory authority. These recitations of other regulatory matters do not convey regulatory jurisdiction to NMED or the State. The permit sets out the definition of TRU waste as codified by the LWA and implemented by the DOE. The interpretation and application of this definition is the responsibility of the DOE. The Department’s interpretation and application of this definition is reasonable and in accordance with applicable law.

There are seven waste streams relevant to NMED’s letter of October 7, 2003. The average TRU concentration in each of these waste streams is shown in an enclosure. These concentration numbers include all of the payload containers from the respective TRU waste streams that have been approved in the WIPP Waste Information System (WWIS). Relevant portions of the Acceptable Knowledge Summary Reports are also included in the enclosure to indicate that the generating processes and materials resulted in the generation of TRU waste. Clearly, these are TRU waste streams. Also, with regard to the 3,350 drums referenced in the letter, note that each of these drums was disposed of at WIPP in payload containers with reported values above 100 nCi/g, consistent with the above described DOE policy. Confirmatory data are available in the WWIS.

The DOE characterizes its radioactive waste on a waste stream basis consistent with universally accepted radioactive waste management practices. Both the WIPP HWFP and EPA’s Final Certification of WIPP recognize this management approach. See *New Mexico Environment Department, Waste Isolation Pilot Plant Hazardous Waste Facility Permit (HWFP), October 27, 1999, EPA No. NM4890139088, as amended; and Criteria for the Certification and Recertification of the Waste Isolation Pilot Plant's Compliance with the Disposal Regulations: Certification Decision; Final Rule, 63 Fed. Reg. 27354 (May 18, 1998)*. For example, with regard to the WIPP HWFP, Attachment B-1a states that “TRU mixed waste destined for disposal at WIPP will be characterized on a waste stream basis.”

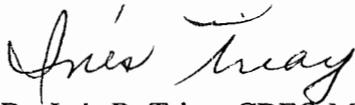
In its letter, NMED also asked us to address the requirements found in HWFP conditions II.C.3.c and III.C.1.c. Permit Condition II.C.3.c provides that “hazardous waste not occurring as co-contaminants with TRU wastes (non-mixed hazardous wastes) are not acceptable at WIPP.” Permit Condition III.C.1.c addresses the “Ten-drum overpack (TDOP)” and provides that “[TDOPs] with a capacity to contain up to ten standard 55-gallon drums or one SWB. TDOPs may be used to overpack drums or SWBs containing CH TRU mixed waste.” These permit provisions do not establish any conditions that are not met by the DOE policies described herein.

As stated above, all waste received, stored, and disposed of in the WIPP repository originated from waste streams that are identified and managed as TRU waste.

Although the waste at issue in the press release was subject to procedural errors, it is important to point out that there is no increased risk to health or the environment as a result of these errors. The drums are part of the inventory assessed by the DOE in determining the ability of WIPP to perform as a transuranic waste repository and therefore, their presence in WIPP is of no consequence to the performance of the WIPP repository. DOE, consistent with its responsibility to manage the radioactive component of mixed waste, has issued Corrective Action Report (CAR) No. 03-083 and has instituted corrective actions. DOE will continue to address this matter with the EPA.

It is our understanding that NMED personnel knew, as of January 2003 or earlier, of the DOE policies and practices for determining and verifying the isotopic concentration of waste sent to WIPP. It would have been better for NMED to have raised this issue with DOE at that time rather than sending a letter and issuing a press release ten months later. We continue to hope that we will be able to discuss such concerns directly with you and other NMED representatives as they arise in the future. We would like to take advantage of your offer to meet to discuss this matter further. We will contact your office to schedule a time for this meeting.

Sincerely,



Dr. Inés R. Triay, CBFO Manager  
U. S. Department of Energy



Dr. Steven D. Warren, General Manager  
Washington TRU Solutions LLC

Enclosure

cc:

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**ENCLOSURE**

**AVERAGE TRU CONCENTRATION OF WASTE STREAMS ASSOCIATED WITH NMED'S OCTOBER 7, 2003 LETTER**

<b>Waste Stream</b>	<b>Containers in WWIS (Note 1)</b>	<b>Average TRU Concentration (nCi/g)</b>	<b>Narrative (From WSPF)</b>
SR-W027-221F-HETA	2,830	4,090	"The waste streams under consideration were generated in the FB-line in a process involving concentration and refinement of dilute Pu solutions and solid Pu buttons usable in weapons."
SR-W027-221H-HET	1,438	5,090	"The waste streams under consideration were generated in the HB-line as the result of operations related to processes involving the production of reactor-produced materials, primarily tritium, Pu, heavy water (deuterium), and other special nuclear materials for weapons manufacturing."
SR-W027-FB-PRE86-C	2,448	4,100	"The waste streams under consideration were generated in the FB-line in a process involving concentration and refinement of dilute Pu solutions and solid Pu buttons usable in weapons."
AECHDM	373	13,600	"AECHDM is a debris waste generated from facility maintenance operations and laboratory operations, which may have included routine or one-time operations to repair or replace equipment or to clean out facilities for modification or decommissioning."
MU-W002	7	35,700	"The TRUMP-S process is a pyrochemical process proposed to recover long-lived actinides from PUREX waste, through a series of processing steps, to final electrolyte separation of actinides from rare earths in a molten salt electrolyte. ... The TRU waste at MURR was generated by laboratory and routine maintenance operations. In general, facility maintenance was conducted during lab reconfiguration or the decommissioning of a portion of the glove box system."
LA-TA-55-19.02 (Note 2)	1,080 874	54,800 56,900	"The waste results from operations and glovebox maintenance involved in the plutonium recovery process."
LA-TA-55-30 (Note 2)	539 426	21,000 16,900	"The waste results from operations and glovebox maintenance involved in the plutonium recovery process."

Note 1: This includes all containers approved in the WWIS except as noted below.

Note 2: The second set of numbers represent the LANL disposed inventory for these waste streams, with the exception of the 98 drums affected by CAR 03-083.