14 July 2003

Mr. Steve Zappe
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive, Building E
Santa Fe, NM 87505

Re: WIPP Hazardous Waste Act permit; proposed modification concerning LANL sealed source waste streams headspace gas sampling and analysis requirements

Dear Mr. Zappe:

This letter submits comments by the Water, Environment, and Utilities Division of the New Mexico Attorney General’s Office concerning a proposed modification to the Hazardous Waste Act permit for the Waste Isolation Pilot Plant (WIPP). The proposed modification concerns LANL sealed source waste streams headspace gas sampling and analysis requirements.

The proposed modification relates to one of the basic methods for waste characterization used in the permit, i.e., headspace gas sampling and analysis. However, this single waste stream has such unique properties, in the sense that it is essentially incapable of generating volatile organic compounds (VOCs), that in our view the elimination of headspace gas sampling for this particular waste stream would have no bearing on the need for such characterization of other waste streams. In any other
circumstance the modification of characterization procedures in such a basic fashion would call for Class 3 treatment.

Our additional comments on the current proposal are as follows:

1. The proposal seeks to substitute headspace gas volatile organic compound (VOC) values based on packaging material for measured values determined by sampling in the case of sealed sources that do not contain VOCs in the source material. (at 2). The basis for doing so is the existence of acceptable knowledge showing that no VOCs are contained in the source material. Thus, the ground for the modification must be the adequacy of such acceptable knowledge.

2. The proposal would add permit terms identifying the matters that must be documented as to each individual waste container qualifying for treatment as a sealed source. The permit would adopt the regulatory definitions in 10 CFR 30.4, 10 CFR 70.4, 49 CFR 173.403, and 49 CFR 173.469. The permit should state in additional detail how compliance with such regulations, in particular the DOT regulations, will be established.

3. The proposal calls for contamination survey results that validate the integrity of each sealed source. (B-22). The requirement should be stated quantitatively, so that it is clear how “integrity” is determined. It is appropriate to state specifically that visual examination (VE) is accompanied by a swipe test to determine radioactivity present on the item and that a stated level of radioactivity is deemed to indicate leakage. Further, the permit should state how sealed sources that do not meet the integrity test are
managed. At a meeting with DOE representatives we were shown a miniature overpack device that serves this purpose. The permit should direct use of such device.

4. The permit modification seems to call for VE at the time of packaging; i.e., it calls for verification of the use of a sealed container less than four liters in size and made of non-VOC bearing materials. It should be stated that such VE is to be performed at the generator site as part of the waste characterization process, rather than being recorded as acceptable knowledge.

5. It is not stated how visual examination will determine that the outer casing is of non-VOC bearing material. (B-22). It would be appropriate to direct that characterization at the generator site incorporate reference to serial numbers of the sealed sources and corresponding manufacturers’ specifications, which indicate the materials used in fabricating sealed sources and the presence or absence of any hazardous constituents.

6. The proposal states that a waste stream VOC source term for packaging is to be established based on sampling of five or more containers holding packaging materials “typical and representative” of such packaging materials in the waste stream. (at B-4). It would be clearer to direct in the permit that all containers in the waste stream in question will be packaged using pipe overpack containers and substantially similar methods and materials. Further, the basis for choosing a sample of five containers is not stated; possibly the number is arbitrary.
7. The proposal calls for re-evaluation if the packaging materials are significantly changed. (B-4). It would be more appropriate if regular samples were taken to determine the existence of any change.

8. The proposed terms for sealed sources should not apply to retrievably stored waste (B-6), since the sealed source waste stream will be entirely newly generated waste.

9. There is an underlying question whether the sealed sources in the waste stream are defense waste, qualifying for disposal in WIPP. Some of the documentation asserts that the materials are being assembled at LANL from “locations that are not secure.” (Att. D at 1). It is understood that the determination of defense origins is outside the scope of this modification and must be done in preparation of the Waste Stream Profile Form and in waste characterization. However, defense-related radioactive materials are presumably kept in secure locations, and Permittees should not refer to supposed insecure locations without also explaining how it is that such waste is known to be defense waste.

We request that these comments be considered by NMED in reviewing and acting upon the modification as to characterization of sealed sources at LANL.

Very truly yours,

LINDSAY A. LOVEJOY, JR.
Assistant Attorney General

LALJr:laljr