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Department of Energy
Albuquerque Operations Office
Los Alamos Area Office
Los Alamos, New Mexico 87544



JUL 17 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

(Hand Carried by Frank Prieozic)
7/17/97

Mr. Benito Garcia, Bureau Chief
Hazardous and Radioactive Materials Bureau
New Mexico Environment Department
2044 Galisteo St., Bldg. A
P. O. Box 26110
Santa Fe, NM 87505

Dear Mr. Garcia:

Subject: Los Alamos National Laboratory (LANL) Technical Area (TA) 54, Area G
Emergency Notification

The purpose of this letter is to provide a written report notifying you of the emergency puncturing of a 55-gallon drum of Transuranic (TRU) mixed waste. This activity occurred after Alice Barr of LANL's Hazardous and Solid Waste Group (ESH-19) discussed the situation with Mr. Steve Zappe of your staff via telephone on July 11, 1997.

On July 11, 1997, it was discovered during a routine inspection of TA-54's waste storage facilities that a 55-gallon drum at TA-54, Area G (Building 230) was bulging, apparently due to internal pressure buildup from hydrogen gas generation. This container of TRU mixed waste is characterized as containing "TA-55-38 Cemented Inorganics and Spent Samples," with chromium (D007) and lead (D008). As part of the Transuranic Waste Inspectable Storage Project (TWISP), the drum had been retrieved from TRU waste Storage Pad 1 on May 20, 1997. The drum, number 10012, did not have any radioactive surface contamination, and it did not evidence any signs of elevated internal pressure at the time of retrieval and subsequent storage in Building 230.

All drums retrieved during TWISP operations are vented to release internal hydrogen gas using the Drum Vent System located in Building 33 at TA-54, Area G. However, due to the obvious distortion of the drum from internal pressure, it was determined that immediate venting of internal gases was needed in order to prevent a possible explosive release. Consultation with LANL's Emergency Management and Response organization and Mr. Zappe supported this decision. A special work permit was prepared and the appropriate health and safety personnel notified. LANL's Air Quality Group (ESH-17) was contacted to determine potential impacts associated with puncturing the drum. Based on the characteristics of the waste (i.e., solidified inorganics), it was determined that emissions of particulate matter were not expected. The drum was remotely punctured by LANL's HAZMAT team at 1539 on July 11, 1997. The device used to puncture the drum was equipped with a bag to collect vented gases. Gases were vented through a combination High Efficiency Particulate Air (HEPA) and charcoal respirator filter cartridge prior to entering the collection bag. The drum puncturing and venting operation



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Benito Garcia

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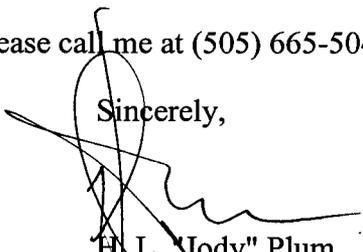
was successfully completed at 1550 on July 11, 1997, with none of the vented gases being released to the atmosphere. A visual inspection of the collection bag revealed that there were no particulates released into the bag, nor was there any indication of liquids or condensation within the bag.

The collection bag is currently being stored in Building 230 at TA-54, Area G. The HEPA/charcoal filter is to be sampled for analysis to determine if radioactive particulates or other contaminants were released into the collection bag during the venting operation. Based on the analytical results, ESH-17 will be contacted to determine air quality impacts and to make appropriate notifications prior to releasing the contents of the collection bag. Analytical results of the filter will also be used to characterize the filter, collection bag, associated personal protective equipment and other materials generated during the puncturing operation.

As was discussed with Mr. Zappe on July 11, hydrogen gas generation in retrieved TRU mixed waste drums is expected to be an ongoing problem which may necessitate further activities of this sort in the future. Standard procedure is to vent hydrogen gas using the Drum Vent System in Building 33. However, in the event a dangerously overpressured drum is discovered which cannot safely be moved to Building 33, LANL's intent is to remotely vent the drum in the same manner described in this letter. A standing, special work permit will be developed for the procedure and, if at all possible, your office will be notified prior to the drum puncturing operation. In the event that notification cannot be made prior to the operation, due to imminent threat to human health or the environment, your office will be contacted via telephone within 24 hours and a written report will be sent to you within five working days.

Should you have any questions, please call me at (505) 665-5042.

Sincerely,


H.L. "Jody" Plum
Office of Environment and Projects

LAAMEP:6JP-033

cc:

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