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Environmental Protection Division
Water Quality & RCRA Group (ENV-RCRA)
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Date: January 21, 2010
Refer To: ENV-RCRA-10-018

Mr. Art Vollmer
New Mexico Environment Department
Compliance & Technical Assistance Program
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303



Dear Mr. Vollmer:

SUBJECT: DESTRUCTION OF CHEMICALS AT TECHNICAL AREA 49, LOS ALAMOS NATIONAL LABORATORY

The purpose of this letter is to report the activities associated with the Emergency Authorization granted by the New Mexico Environment Department-Hazardous Waste Bureau to Los Alamos National Laboratory (LANL) on January 19, 2010. LANL personnel contacted the New Mexico State Police 24-hour Dispatch Hotline at approximately 12:10 pm and notified them of our intent to conduct emergency treatment by detonation of a single vial containing suspected unstable chemicals from Technical Area 48, Building 1. Subsequently, the Emergency Authorization was granted by you via a phone conversation between you and Luciana Vigil-Holterman of my staff at approximately 12:15 pm on January 19, 2010.

During an experiment on January 11, 2010 an unexpected reaction occurred in a 23 mL beaker containing a mixture of benzenetrisbenzoic acid (0.2 grams [g]), 12 milliliter (mL) of dimethyl sulfoxide, with 5 drops (approximately 0.25 ml) of 30 percent hydrogen peroxide, and europium chloride (0.18 g); the reaction took place inside a drying oven. During a review of the incident, it was noted that a second vial of the same chemical mixture had been created for the experiment and that the vial was still within the room. This second vial, containing less than one tablespoon of liquid (approximately 12 ml), was determined by Emergency Operations personnel to be too unstable to handle and to pose an imminent risk to human health and safety. Therefore, the mixture could not be managed through normal disposal practices. The LANL Emergency Operations Emergency Response (EO-ER) group determined that the only safe disposal option for this waste was destruction through open detonation.

After receiving Emergency Authorization from your office, the containers were transported from TA-48 to the emergency disposal area at TA-49. At TA-49, a detonation was performed by the LANL ER-EO Hazardous Devices Team at the detonation pad. The detonation occurred at approximately 1:46 pm on January 19, 2010. All safety protocols were in place and safe standoff



distances determined and observed by emergency personnel. The destruction was complete with no visible residues remaining.

Please contact Luciana Vigil-Holterman at (505) 665-3435 of the Water Quality and RCRA Group (ENV-RCRA) if you have questions.

Sincerely,



Anthony R. Grieggs
Group Leader
Water Quality & RCRA Group (ENV-RCRA)

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