

2390

Blue Zilly
0009

Los Alamos National Laboratory

Hazardous and Solid Waste Group (ESH-19)

P.O. Box 1663, Mail Stop K490

Los Alamos, New Mexico 87545

(505) 667-0666 / FAX: (505) 667-5224

Date: February 1, 2000

Refer to: ESH-19-01:006

Ms. Debby Brinkerhoff
Compliance and Technical Assistance Program
Hazardous and Radioactive Material Bureau
New Mexico Environment Department
2004 Galisteo St., Building A
P.O. Box 26110
Santa Fe, New Mexico 87502



Dear Ms. Brinkerhoff:

SUBJECT: Chemical Destruction at Los Alamos National Laboratory (LANL)

The purpose of this letter is to provide a written report notifying you of the destruction of two materials that were unsafe to manage otherwise. Approval to perform this activity was provided by you via letter to Alice Barr of LANL on January 25, 2001.

The first material, one container of 2,4,6-trinitrobenzoic acid, was identified by Nuclear Materials Technology Division personnel during waste management activities on January 18, 2001. 2,4,6-trinitrobenzoic acid is typically found in a wetted condition that maintains the stability of the compound. Upon inspection of the container, it was discovered that the material appeared to be dry and partially crystallized making the material potentially shock sensitive. The glass bottle contained <25 grams of the chemical and was located at Technical Area (TA) 55, Building PF-3, Room 117. It was determined by the University of California's Emergency Management and Response (EM&R) Group, that this chemical should be detonated at TA-49. The chemical was moved from TA-55 to TA-49 and destroyed on January 29, 2001, by the Hazardous Devices Team.

The second material, 3 tear gas canisters, was identified during a dismantling operation of an access deterrent system. It was initially presumed that initiators suspended within the canisters could be removed and the tear gas and initiators disposed of separately. However, it was subsequently determined that epoxy had been used to set the initiators in the canisters and that they could not be safely detached. Once access to electricity had been interrupted, the canisters were effectively in a constant armed state susceptible to potential triggering by radio frequency disturbances and/or static electricity. The canisters each contained approximately 23 grams of tear gas, an electric match and a squib. It was determined by EM&R that these canisters should also be detonated at TA-49 and were destroyed on January 30, 2001.



Prior to the removal of both materials, special work permits were written that defined the scope of work, and identified the hazards and personnel assigned to conduct the work. Pre-job briefings were conducted with all personnel involved in the removal of the chemicals during which the sequences of events, hazards, and controls were identified and discussed. The transport, placement, and the destruction of the chemicals were performed in accordance with the Hazardous Devices Team and EM&R procedures.

Based on mass balance calculations performed by the Environmental, Safety and Health, Air Quality Group personnel, it was determined that no significant air emissions would be generated by these activities. Safe standoff distance were determined and observed by the emergency personnel. Inspections of the surrounding area conducted after the destruction processes revealed no unusual occurrences, with no chemical residue remaining after the detonations.

If you have any questions, please feel free to contact me at (505) 667-0820.

Sincerely,



Alice Barr
Hazardous and Solid Waste Group

AB/vh

Cy: J. Vozella, LAAO, MS A316
D. Tuggle, LANL, S-8, MS K496
T. George, LANL, NMT-DO, MS E500
P. Pellette, NIS-18, MS J562