

Department of Energy

Field Office, Albuquerque
Los Alamos Area Office
Los Alamos, New Mexico 87544



MAY 24 1993

MAY 24 1993

Barbara ✓
Steph S. ✓

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Benito Garcia, Bureau Chief
Hazardous and Radioactive Materials Bureau
New Mexico Environment Department
525 Camino de los Marquez, Suite 4
Santa Fe, NM 87502

Dear Mr. Garcia:

This written report for the May 18, 1993, emergency gas cylinder detonation at Technical Area (TA) 36, is submitted pursuant to the requirements of the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit, Module II, General Facility Conditions, Paragraph II.K.2.c.

On May 13, 1993, at approximately 8:00 a.m., Waste Management Group (EM-7) personnel performed a routine hazardous waste inspection of the storage facilities at TA-54, Area L, and discovered a leaking gas cylinder overpack containing a five cubic foot Department of Transportation (DOT) Type A gas cylinder of chlorine. The Hazardous Materials Team (HAZMAT) was notified and vented the gas from the overpack into a sodium hydroxide solution at 11:00 a.m. The overpack was opened after the excess gas was vented and treated. The interior cylinder was determined to be in deteriorated condition and was placed in another DOT-approved chlorine gas cylinder overpack.

On May 17, 1993, at approximately 8:00 a.m., EM-7 personnel discovered the second overpack was leaking during the hazardous waste facility inspection. EM-7 called HAZMAT to evaluate the situation. HAZMAT determined that any new overpack would probably be breached by the leak, considering the condition of the original cylinder. HAZMAT concluded that the safest option for this situation would be to detonate the overpack and release the chlorine under controlled conditions, pursuant to LANL SOP-M-8-84-A, "Standard Operating Procedure for Destruction of Gas Cylinders with Unknown or Leaking Contents," as approved January 31, 1989.

The Environmental Protection Group (EM-8) was notified and discussion was opened by telephone between Alice Barr, EM-8, and Barbara Hoditschek of the New Mexico Environment Department, Hazardous and Radioactive Materials Bureau, on May 17, 1993, as required by paragraph II.K.2.b. of the LANL permit. Air

T



Benito Garcia

2

MAY 24 1993

modelling calculations were performed and the determination was made that the planned release of the chlorine by detonation would not result in significant gas concentrations at public access points, based upon American Industrial Hygiene Association guidelines.

The gas cylinder was detonated at the TA-36-8 MINIE firing site at 10:40 a.m., on May 18, 1993. The detonation process was performed by the Explosives Applications Group (M-8) in accordance with the procedures contained in SOP-M-8-84-A. No unusual occurrences were observed. The chlorine release was reported to the National Response Center at 1-800-424-8802 (Report #174586), as required by 40 Code of Federal Regulations 302.6.

Thank you for your assistance in this matter. If you have any questions, please call Jon Mack of my staff at 665-5026.

Sincerely,



Joseph C. Vozella, Acting Chief
Environment, Safety, and Health
Branch

LESH:7JM-044

CC:

D. Glenn, FOB, LAO
T. Gunderson, EM-DO, LANL,
MS-J591
K. Hargis, EM-8, LANL,
MS-K490
T. Drypolcher, EM-7, LANL,
MS-E517

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violation.

Document Title:

LANL ER Program Monthly Report for March 1993

Name:

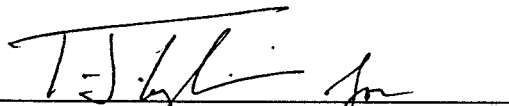


Date:

3/7/93

Thomas Gunderson
Environmental Management Division Leader
Los Alamos National Laboratory

Name:



Date:

5-19-93

Joseph Vozella, Acting Chief
Environment, Safety, and Health Branch
DOE-Los Alamos Area Office