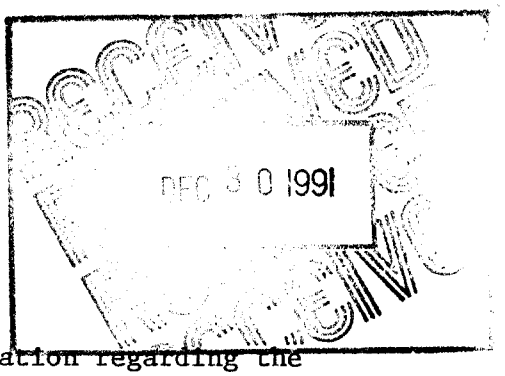
DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 27TH SUPPORT GROUP (TAC)
CANNON AIR FORCE BASE, NM 88103

ENTERED

26 DEC 1991

Mr. Benito Garcia, Chief
Hazardous & Radioactive Materials Bureau
New Mexico Environment Department
1190 St. Francis Drive
Santa Fe, NM 87502



RE: Request for Additional Information, dtd 9 Dec 91
Cannon AFB, NM5572124456

Dear Mr. Garcia

Cannon AFB received your request for additional information regarding the Notice of Deficiency for the Melrose AFR permit application on 12 Dec 91. The responses to each of your concerns are listed below.

1d. 100 Year Floodplain Standard

After several unsuccessful attempts to locate a floodplain boundary map we decided to calculate the 100 year floodplain as best we could. Based on our assumptions we determined that the open burning/open detonation unit is in the 100 year floodplain. Realizing that a more detailed study would cost $10,000 we are willing to accept this finding. In the area of the treatment unit we estimate there would be one to two feet of standing water. Therefore, we propose to build a two foot earthen berm around the perimeter of the treatment unit. This would minimize the effects of the 100 year flood by preventing any runoff from occurring. We believe this would satisfy the regulatory requirements due to the minimal amount of waste which is treated at the range and the fact that the open detonation process completely consumes the waste munition's energetic (reactive) material. The floodplain map and the associated calculations and assumptions are attached.

2b. Waste Characteristics

Although we were unable to locate Material Safety Data Sheets for the waste munitions, we did locate a technical manual, "Description of, and Disposal Procedures for, Conventional Explosives and Related Hazardous Materials" dated 2 Nov 87 which lists their ingredients.

a. Smokeless powders consist of pyrocellulose with 13% nitrogen which is colloidized with ether-alcohol.

b. Solid propellants contain a fuel, usually a hydrocarbon, and an oxidizer, which contains a large percentage of oxygen.

c. Typical high explosives may contain TNT [$C_6H_2CH_3(NO_2)_3$] or Tetryl [$C_6H_2(NO_2)_3NOH_3NO_2$].

d. Initiating explosives consist of lead azide or mercury fulminate.

e. A typical incendiary is similar to black powder which consists of 75% sodium nitrate or potassium nitrate, 15% charcoal and 10% sulfur.

f. Pyrotechnic explosives include items such as flares which are made up of a fuel such as magnesium, aluminum, charcoal or sulfur mixed with an oxidizer such as nitrades of barium, strontium, sodium or potassium.

The net explosive weights which were listed for each waste munition in our 18 Nov 91 response is the amount treated during the once a month treatment process. Regarding the dud fired practice bombs, three pounds is the net explosive weight of all 150 bombs not the individual bombs.

2c. Gate Hours

The gates which are used to access the impact area on Melrose AFR are usually open on weekdays from 06:30 AM until 11:30 PM. The gates are locked at all other times unless a special exercise is taking place.

2e. Traffic Routes

We have enclosed a map with the routes used by Explosive Ordnance Disposal clearly marked with a yellow highlighter.

5. Hazard Prevention

Due to the small quantities of munitions involved in our operations all of the munitions are loaded and unloaded by hand. The people who handle the waste munitions are trained professionals in the area of managing explosive items. Their extensive training and experience insure that any potential hazards are minimized to the maximun extent possible.

We hope that the above information will complete our permit application. Please contact Lt Gregg Demers or Mr. Jim Richards (784-4639) if you require any additional information.

Sincerely

DAVID E. BENSON, Colonel, USAF
Commander

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1. Floodplain map and calculations
2. Map of Impact Area (1":1000')

cc: Mr. Richard Mayer, EPA
HQ TAC/DEV
Dr. Herb Grover, NMED