



*Ad of [unclear]*  
A  
May 2, 1945

Capt. T. O. Jones

K. Bainbridge

PUBLICLY RELEASABLE  
LANL Classification Group

CLASSIFICATION CANCELLED

Per *Memo dated 6/29/77*

By *Les Redman / Jerry Riven*

Legal Aspects of TR Tests

It is my understanding from conversations with Gen. Groves on 18 April that he was going to get additional legal talent to consider and act on the legal aspects of TR tests. The purpose of this note is simply to call your attention to some of the items which should be discussed with Dr. Hempelmann and any legal talent.

1. There are some coal mines to the north west in the vicinity of Tokay and Carthage. Dr. Leet can help us on this if there is any worry about earth shock, as he is an expert on earth shock in the vicinity of quarry blasts and in his book he states that there is less motion and earth shock underground and it is harder to perceive a quarry blast while underground than it is while on the surface considering ground effects alone. My worry with respect to these mines is that they are marginal mines and are probably not shored up according to approved methods. A few men work these mines more or less on a shoe string, so that there may be a hazard and it should certainly be considered by your office whether or not these people should be warned to get out. Dr. Leet will be at Trinity May 4, 5 and 6.

2. You have maps available giving the surrounding towns, the nearest settlement of over 50 people is 28 miles away. The towns of interest are San Marcial, San Antonio, Socorro, Carizozzo, Oscuro, Three Rivers, Tularosa and Alamogordo.

3. There are occupied ranches, the nearest one is greater than 12 miles away.

4. There are Alamogordo base personnel located at bombing range camps and rescue camps throughout the region of the air base reserve. These personnel need not be removed for the M 7 shot but should be removed for the later shots.

5. Gen. Groves felt that the preliminary plans were insufficient on preparations for eviction of people in towns in case that should be necessary. He said it was not sufficient to have a group of MPs; that commissioned officers would have to be present; and he mentioned the possibility of officers from Y going down to man the cars in addition to the MP's in the cars and the physicists who would be responsible for radiation and 49 measurements.

6. We are trying to get Don Lee here as an authority on earth shock and its effects. He is probably the foremost authority on seismographic work relating to small explosions, quarry blasts, etc., besides being a seismologist of first quality.

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7. On blast problems we have several authorities connected with the project--J. Von Neumann, W. G. Penney, Ens. G. T. Reynolds, W. G. Marley and J. O. Hirschfelder, who can advise on the possibility of windows being broken at a distance, etc. Hirschfelder has already made a summary of such phenomena for observed cases of explosions of munition dumps, powder and H.E. manufacturing plant accidents, etc.

8. On problems of dilution of 49 and fission products, Gen. Groves has already taken steps to get Professor Church here, who has worried about similar problems at W and Chicago.

9. It may be that sufficient 49 is left in the soil in the vicinity of the shot to make it hazardous for a considerable time after the shot. Measurements can be made of the concentration of the soil by H. L. Anderson and his group. If this land is heavily contaminated and must be fenced in for considerable time after the test, then certain legal problems will arise because some of this land is homestead entry land, some is vacant land, and some is state grazing land.

KTE/bca

X. BAINBRIDGE

cc - J.R. Oppenheimer  
 Dr. L. Hempelmann  
 J.O. Hirschfelder  
 Lt. R.A. Taylor  
 J.H. Williams  
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