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K. T. Bainbridge

L. Fussell, Jr.

Per: Memo dated 6/24/77
By: Les Reames / Joseph R. ...

23 December 1944

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OCT 24 1980
P. M. Lang, 05-6/1/78

Objectives of the Trinity Test

The overwhelming immediate urgency of the detonator program, and the consequent drain upon manpower in the Section, indicate the desirability of reexamining the objectives which the Trinity test is supposed to accomplish. Our views in this matter are summarized below, for information and for criticism. In the event that our ideas are not in line with those of the high command, we ask that we be set straight since we cannot afford to allow men and time to waste.

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To begin with, we have been and still are proceeding on the basis that the test work is, in every respect, as 'important' and as 'urgent' as is the detonator work. The difference lies in the time sequence. We feel it both misleading and disastrous to say that one job is unimportant, or of low priority, simply because there is more time available in which to do the work. It is just as important that we meet the as yet unscheduled date for the test, as it is that we meet the similarly unscheduled completion date for detonators. This may seem like splitting hairs, but surely it is evident that no man's efficiency and enthusiasm are increased if he feels that his work is no longer considered essential. Contrariwise, if the work really is nonessential we should be so informed in order to place him in more constructive work.

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It is possible that the broad program of measurements we have planned may be far too broad, and that we should curtail it to concentrate on a few measurements which are considered absolutely essential. A memorandum which is nearly completed describes our entire proposed program and discusses the reasons for wanting each measurement. I think this should be discussed in great detail so that we can drop all nonessential items before spending any more time on them. A statement should be given us, as soon as possible after the discussion, as to the absolute minimum test program which would satisfy the test needs. I suggest that this minimum include a) blast measurements from the ground, b) blast measurements from the sky, c) simultaneity of detonation, d) determination of the absolute time at which reaction occurs, e) collection of active materials to determine reaction efficiency, f) ionization measurements for the protection of personnel. Other measurements, e.g., earth-shock, ball-of-fire, photographic, and alternate measurements of the essential items above, appear to be at a lower level. It is necessary, however, that a dividing line be drawn between the 'essential' and the 'merely desirable' measurements, and the latter should be placed in order of urgency.

The manpower at present available for test preparations is not adequate if we are to meet a moving-in date of 15 February. It will not solve it, obviously, to give us 30 additional men on, say, 10 February; nor does it solve it completely to give us extra hands - as opposed to brains - now. Our second request, therefore, is not for additional help, but rather for a realistic completion date. We are not trying to ask for what is not known, but rather for the best up-to-date information available at any given time. We much prefer a fluid date which may be frequently revised, to a definite one which is not revised until all hope of meeting it has gone, together with the necessity of meeting it.

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