

July 11, 1939

Confidential

Mr. Hugh Fossett
The Associated Ethyl Company Ltd.
The Adelphi
London W. C. 2
England

Dear Mr. Fossett:-

I have your letter of June 9th concerning the wishes of the British Air Ministry with respect to bomb proof and explosion proof mixing plants. I have given some thought to the matter and I have seen the comments made both by Mr. Lewis and Mr. Schaefer. Without going into the details of the matter, I am disposed to be sympathetic with their general point of view in that in my opinion it will be much more feasible to protect a storage place against destruction than it will be to provide the ventilation which will be necessary to operate a mixing plant under ground with a reasonable security. It would appear to me that drums of Fluid could be stored satisfactorily and without undue danger from exposure to the Fluid. On the other hand the mixing plants might just as well be as simple as possible with the idea that even though they might be damaged by explosives, they could be reconditioned in a fairly short time by the substitution of extra parts in the mixing lines. I should think that an adequate supply of extra parts could be kept available for prompt substitution when needed. I see no reason why this should not be generally satisfactory.

I confess to an inadequate knowledge and experience with methods of human combat and the effects of air raids etc. On the other hand I am disposed to feel that it would be rather difficult for anyone to predict the outcome of an air raid or bombardment. I should think, therefore, that the simplest mixing mechanisms capable of easy replacement, might well be the best and most satisfactory for use in war time. In any case I doubt if one would be justified in putting any dependence in artificial ventilation since I should think that power lines of whatever kind used, might well be cut off. Under pressure the underground mixing plant would almost certainly be used, even though disabled, and the effects might well be disadvantageous, although they might not be counted too highly under conditions of general destruction.

I would not be in position to give specific information as to the capacity of ventilating fans with reference to a specific instance for the reason that there is a background of engineering experience which can give you much better information than I could hope to arrive at on theoretical circumstances. Therefore if the Air Ministry is insistent upon the use of such mixing plants as you have described, you can better obtain the technical information from Mr. Schaefer. I am sure that he will give you such information if indeed it becomes necessary to make use of it.

With kindest personal regards,

I am

Sincerely yours,

RAK:ls

Robert A. Kehoe, M.D.