

*Full -
incl. other correspondence
maintaining -*

July 13, 1939

Mr. H. Fossett

Dear Mr. Fossett:

In answer to your July 7th letter concerning bomb-proof Ethyl blending facilities, I should like to clarify the suggestion advanced in my letter of June 30th. If this clarification still does not indicate that the Air Command's order can be complied with adequately by the alternative facilities suggested, I believe the specifically detailed information you wish could best be developed by the Engineering Department of the Air Force from drawings and specifications now in the possession of I.C.I.

I understand from your letter that the Engineering Department has already designed complete and adequate ventilation for the entire gasoline storage, tunnels, and power plant. Ventilation for the Fluid mixing and storage space has not yet been designed due to the lack of answer to two questions: whether or not to use an enclosed drum booth and pertinent standards of air change rate for the handling of Ethyl Fluid.

If blending must be done underground, or in any enclosed place, I am in agreement that a drum booth should be provided. I would suggest that your approval of ventilation design be predicated on that design meeting the standards established for our Blender building overall, and for the forced-draft drumming booths contained in the Blender building. I would be quite willing to have our people here develop the necessary design data for you; however, I feel quite sure that the entire design could be developed much more quickly and satisfactorily between the Engineering Department, I.C.I. and your own staff. We have given I.C.I. all drawings, specifications, data, etc. and these should be available now in London.

Going back to our previous suggestion for an alternative to underground blending and the necessity of providing an enclosed, forced-draft drum booth, you state the Air Ministry ruled out the idea of having several protected surface blending platforms due to their visibility from the air. It was not our intention to suggest installation of permanent platforms. May I reword the suggestion:

July 18, 1939

1. Completely protect gasoline tankage, power facilities, pipelines, Ethyl Fluid storage; in other words, completely protect every physical piece of equipment, just as is now contemplated.
2. Make no attempt to protect the blending operation (eduction of Fluid from drums), for the reason that this operation need not be performed during a time when protection is necessary. You concur with our view that the operation need not be performed during attack, and that it will not be performed oftener than once in perhaps six months.
3. Provide in the open air proper connections to the underground pipeline for Fluid eduction. We suggested more than one such location for the same reason provision has been made for more than one ventilation outlet duct - spare in case of direct hit, thus giving opportunity for later repair.
4. Make this location invisible. The piping take-offs and valve handles could be contained in a 3-foot diameter manhole extending down to the main pipeline, the hole filled with sand-bags for pipeline protection plus quick access to the pipeline in case of necessity. The top of the hole could be sodded over except when in use.
5. All above-ground paraphernalia used during blending designed portable; - eductor, standpipe and connections, drum blocks or platforms, etc.

It appears to us that the above complies fully with the Air Command order. All vital services, supplies, and physical equipment are completely protected. Nothing is visible to attackers, or at least everything can be made invisible very quickly on attack warning. Since this is the case, it is difficult for us to see the justification for going to the expense of underground, enclosed blending, with its attendant potential hazards, in spite of ventilation; in other words going to that expense and hazard for the sake of protecting a mobile affair that is only exposed a matter of three or four hours out of six months, particularly when there is complete choice in designating those few hours.

Very truly yours,

J. H. Schaefer

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