

May 28, 1946

*See Bevan's letter
5/17/46 (last para-
graph) regarding*

Mr. T. R. A. Bevan
Associated Ethyl Company Ltd.
Artillery House, Artillery Row
London S.W.1, England

Dear Ray:

I have gone over the redraft of the regulations and find little to criticize. They seem to be simple enough, from the aspect of information, and clear enough as to procedure.

Only one feature of them gives me any serious cause for dissatisfaction, namely Section 5, Rail Tank Wagons. I do not like to quibble, and I feel that I am not doing so when I take exception to the implication that the lead hazards of cleaning these tanks are serious. Frankly, I do not believe there is any such hazard from volatile lead compounds, and the results of observations and analysis will be required to convince one. Obviously there will be organic and inorganic lead compounds in these tank cars, but in what quantity. I will hazard the judgment that the volatile lead compounds will not be present to an extent greater than that which can be accounted for by the tetraethyl lead in the residual gasoline. Is it established that these cars accumulate sludge, by reason of the fact that they are not drained from the bottom? Certainly they have no water bottom. If they carry sludge how can the product be suitable for use at the destination? No, I do not believe that we are considering the quantitative aspects of this problem in adopting this rule. But I am willing to be convinced.

Unfortunately, I am somewhat on the spot here. It is true that I would not suffer, under ordinary circumstances, from the application of excessive precautionary measures. But how could I justify putting out more stringent regulations over my name in the United Kingdom? Can I take chances with workmen in the United States, after indicating my belief that this is an hazardous situation. The professional and legal implications of this regulation are quite clear, so long as it is stated that Section 1A must be followed when these tanks are entered. By all means, we should require the use of air-line masks, but in my opinion gloves, boots and special clothing are no more necessary here than they are in ocean tankers, from the viewpoint of lead hazard. If we are thinking of preventing skin contact with gasoline, it is a different matter. Admittedly the prevention of such

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contact, as far as possible, is desirable. If so, then these precautions are advisable in the case of road-tank wagons. But the sentence explaining why these are not required in the case of road-tank wagons and ocean tankers, clearly implies that the rail tank wagon does contain sludge and therefore gives rise to hazardous cutaneous lead exposure.

I think we must exercise every care not to confuse the issues involved in these regulations. If we do, we shall be given cause to regret it. I am quite willing to face the facts, and if the Petroleum Board has data to prove the existence of potential hazard here, I will gladly go along with them, and will also look again into our own situation. Otherwise, with every wish to be completely coöperative, I feel that I cannot take the professional responsibility for testifying in my own name, to the existence of an hazard in which I do not believe. If the petroleum companies wish to adopt increasingly stringent regulations on their own account, either in relation to the hazards of gasoline, or out of lack of confidence in my judgment and knowledge of the facts, I would not think of raising an objection. I do think, however, that they should supply evidence for their opinion, if they find themselves in serious disagreement with me on a matter of this type.

Only one other matter is open to question, - namely, the length of use of the canister. I have always taken the position that the use of a canister mask in any situation that involves exposure to concentrated vapour of gasoline and/or tetraethyl lead, should be limited to short periods, and that the canister should be discarded after every individual period of use (unless the latter is only a few minutes). The reason for this is that the carbon is flooded quickly, especially when exposed to high concentrations of relatively volatile materials like gasoline. This is not true of tetraethyl lead vapor in the absence of other organic vapors. It is not easy to define the period of use of canisters in connection with the present use, for the conditions may be highly variable. Consequently one must limit the use to 8 hours or some such period, or, if it is permitted to be longer, the wearer must be required to report promptly to a foreman as soon as he detects gasoline in the air he breathes. The latter method is obviously somewhat unsatisfactory.

I'll be replying to your other letters shortly. This one seemed to require prompt action, despite my present flood of other work. I hope my remarks will be helpful. I send this letter by air, and a copy, with the revised regulations on which I have made a few unimportant pencil notations by ship.

With best regards.

Sincerely,