

THE ASSOCIATED ETHYL COMPANY LIMITED

Registered Office: THE ADELPHI, LONDON, W.C.2

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OUR REF. ST/4

YOUR REF.

17th May 1946

Dr. R.A. Kehoe,
Mettering Laboratory,
College of Medicine,
University of Cincinnati,
CINCINNATI, OHIO.

Dear Bob,

Many thanks for your letter of April 20th in reply to mine of the 14th on the subject of a suspected case of fatal lead poisoning amongst men engaged in the cleaning of rail tank wagons in Norway.

It is, I believe, appreciated by all concerned that the information available in this particular case is insufficient to determine with accuracy the cause of death; as you say, however, it is wise to assume, because of our situation, that the man died as a result of exposure to tetraethyl lead vapour..

In a letter on tank cleaning regulations which was mailed to you some two or three days ago, I mentioned that the practice in this country and, I believe, in a number of European countries, including probably Norway, is to empty rail tank wagons by top suction, and not, as in the United States, through bottom outlets. This may have some bearing upon this Norwegian incident, particularly if, as you suggest, the Germans were using rail tank cars for shipping gasoline with an exceptionally high lead concentration.

With kind regards,

Sincerely yours,



T.R.A. BEVAN

KE 0007274

April 20, 1946

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

Dear Ray:

I have considered the letter from Shell Petroleum attached to your letter of April 15, and I think that the following comments can be regarded as based on fairly good information. In any case, these are the best judgments that I can arrive at on present information.

It is entirely possible that the casualties reported in association with the cleaning of rail tank-wagons resulted from undue exposure to tetraethyl lead. From the information given it is not possible to arrive at any definite conclusion. We do not know the position of the gasolines to which these individuals may have been exposed, and the circumstances associated with these exposures have been so incompletely reported that one would be foolhardy in the extreme to draw very definite conclusions. On the other hand, the fact that one of these individuals died following exposure to gasoline is rather suggestive. We may not properly assume that his death was due to gasoline intoxication. In fact, we can be rather certain that it was not. It could have been due to the absorption of tetraethyl lead, and because of our situation it is probably wiser to assume that it was than to try to explain it by other means. By this I only mean that it is well for us to assume the worst, so long as we have to make any assumption at all. Granting then for the sake of the argument, that these men suffered as the result of lead absorption, and that one of them died, we still have no rational or valid evidence for the belief that rail tank-cars involved in the ordinary commercial distribution of leaded gasoline can give rise to situations of this type. Frankly I find this situation wholly unconvincing. Our experience in this country, and the evidence of a rather large series of observations, is all to the contrary. I am sure that we need not concern ourselves with the serious likelihood of the occurrence of tetraethyl lead poisoning among men who carry out the normal operations associated with the cleaning and repair of rail tank-wagons used for the distribution of ordinary commercial leaded gasoline. What then is the explanation of this situation, if we make the assumption previously referred to?

I have had an opportunity to review a fair amount of information obtained in connection with German operations in connection with the handling of their fuels. Quite apart from the fact that the chemical composition of their fuels is somewhat unpredictable for a given field of military operations, I feel reasonably certain that gasolines containing quite high concentrations of tetraethyl lead were shipped

KE 0007275

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Mr. T. R. A. Bevan - (2) - April 20, 1946

here and there, and subsequently mixed with other gasoline at more distant points. I cannot prove this, but I think I shall have better evidence when I have completed the translation and examination of all the available information. My best evidence lies in the fact that the precautions that were taken in connection with their handling of gasoline from certain areas, were excessive in the extreme, unless they were dealing with decidedly concentrated mixtures of tetraethyl lead. With the information that was available to them, and with their general point of view, I do not believe these precautions would have been taken or advised, unless there was good cause. Therefore, I strongly suspect that the problem of dealing with their rail tanks was something quite different from any that we have had to meet as the result of commercial operations. This same thing holds in the case of tank wagons used on motor roadways. I believe, therefore, that these casualties can be charged to circumstances which grew out of the war and which have no necessary or likely relationship to normal operations.

We have had a number of difficulties in this country which have arisen out of unusual circumstances, and although we have had no serious incidents or casualties, we have had a number of situations which we have learned about in advance and have undertaken to control. You will realize that with our personnel and facilities for the control of these situations in this country, we have had a decided advantage. When I consider the number of possibilities for unusual situations and difficulties among the Germans, I cannot but dismiss incidents of this type as having little relationship to normal conditions. As you will remember, we always had some difficulty in convincing some of the Germans of the necessity for some of the precautionary measures which we recommended. Some of their more intelligent people grasped the ideas and also accepted the fact that we were dealing with them not only in good faith, but also out of rather extensive information and experience. Many of their people, I know, did not take what we said too seriously. I feel quite certain that under the pressure of the war they engaged in many practices which we would not have approved and which we were able to avoid only because of the close cooperation which came to be possible at a fairly early date between the responsible people in this industry and governmental and military personnel.

Incidentally I am making every effort to collect all of the information I can from all the sources that come to my notice, concerning the difficulties associated with the military handling of leaded gasoline. I shall attempt to put all of this information together in the form of a rather full report. Therefore, any matters that come to your attention through any avenue, even though they may be hearsay, will be of interest to me.

I have just had a call from David Roffey. I am planning to see him before he leaves the country. He was good enough to transmit your personal greetings to me, which I was very pleased to receive. I have just a bit of feeling of being in somewhat more direct contact with you after such an experience. Some days ago I talked with

KE 0007276

Mr. T. R. A. Bevan - (3) - April 20, 1946

Batchelor, Roffey, and Ken Lloyd, and had an interesting and also pleasant time with them. Also my recent conversations with Hugh Fossett have brought me in a bit closer touch with some of your problems. In this connection I have just written Cassells a long letter, in the course of which I raised the question of his plans, and the possibility of his accepting much broader responsibilities for medical advice to Associated Ethyl. I am not sure just what your intentions are in this regard, but I am beginning to feel that it is advisable not to delay too long getting our general house in order. The problem of medical consultants elsewhere is a difficult one, and as commercial activities come to be restored in various parts of the world, we shall need to be properly represented and assisted professionally. I have also written Keith Fairley at some length, tentatively raising the question as to the means by which he and I might have an opportunity to sit down and discuss various matters. There is, I think, much to be done to clarify our position on more or less of a world-wide basis. Travelling is difficult, expensive and time-consuming, and as you very well know, I want to spend as little of my time out of this Laboratory and this country, as is necessary. Nevertheless there are things to be done, and I shall not shirk from doing what seems to be required. I am planning to get together another book which will include what was formerly embodied in our volume for medical consultants, but which will include other things as well. Such a volume, in my opinion, should include a rather complete discussion of the difficulties which came to light as the result of military conditions. I have no doubt you will have some ideas on this subject, and I should certainly appreciate having your suggestions as to the extent to which you consider it advisable to disseminate this kind of information. You will probably realize, in this connection, that I have a great deal of information, which is not very readily available to anyone else, and which in large measure should become a part of the public record, at least to the extent of properly informing medical people on all of the aspects of this significant world-wide industry. I can scarcely avoid feeling that I have a professional responsibility in this regard, but I am at a loss to see just how I can best fulfill it. In any case, I want to be of as much help as I can to you and your associates and would very much appreciate an expression of your views on any of these matters.

With kindest personal regards,

Sincerely yours,

Robert A. Kehoe, M. D.

RAK ef

Copy by air mail.

KE 0007277

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OUR REF.

ST/4

YOUR REF.

15th April 1946

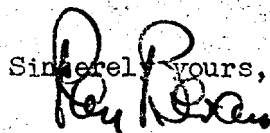
Dr. R.A. Kehoe,
The Kettering Laboratory,
College of Medicine,
University of Cincinnati,
CINCINNATI, Ohio.

Dear Bob,

I should greatly appreciate your comments on the attached letter I have to-day received from Shell Petroleum which, as you will note, relates to a suspected case of lead poisoning amongst men engaged in the cleaning of rail tank wagons.

The evidence is most incomplete, and in view of the circumstances it will not, I am afraid, be possible to obtain further data.

Sincerely yours,



T.R.A. BEVAN

Enc.

KE 0007278

N 7841.02

THE SHELL PETROLEUM COMPANY LIMITED

St. Helen's Court,
London, E.C.3.

The Associated Ethyl Co. Ltd.,
Artillery House,
Artillery Row,
London, S.W.1.

Our ref.
ENGINEERING/H

11th April 1946

For the attention of Mr. Bevan

Dear Sirs,

CASUALTIES IN HANDLING LEADED GASOLINE - NORWAY

One of our engineers visited Norway recently, and was told that a fatal casualty had occurred during the German occupation among men who had been engaged on the cleaning of rail tank wagons which had contained leaded gasoline. We have been able to gather a certain amount of information on this matter, which we are sending you herewith.

In our opinion this case requires very careful study, since the casualties and death occurred through the cleaning of rail tank wagons, which are normally considered to be free from dangerous sludge. The symptoms described in the attached medical reports appear to us to be the all too familiar ones of poisoning from lead tetra-ethyl.

Unfortunately, under the conditions then prevailing in Norway, it was not possible for any lead determinations to be made on the patients, so that the evidence is not as clear cut as one would wish.

We should very much like to have the opinion of your medical experts on this matter, as it may possibly be necessary to tighten up the existing regulations regarding the cleaning of rail tank cars which have contained leaded gasoline.

Yours truly,

For, The Shell Petroleum Co. Ltd.,

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