

December 20, 1938

Dr. J. Hammacher
Sourabaya
Java

Dear Doctor Hammacher:

I have received information from the London office of Ethyl Export Corporation to the effect that your services have been sought by representatives of the Asiatic Petroleum Company for the supervision of certain workmen who will be engaged in mixing Ethyl Fluid with gasoline at their Bandaran plant. It has appeared from various items of correspondence which have come to me that you have had a considerable anxiety concerning the dangers associated with this work. It seems advisable, therefore, that I communicate with you and give you the benefit of our experience in connection with this work. This letter will also serve as a confirmation of your appointment of this position.

As the Medical Director of Ethyl Export Corporation, I have been responsible for the approval of the equipment which has been developed for the mixing operations. I have also been responsible for regulations which have been concerned with the operation of mixing equipment and with all other means of dealing with Ethyl Fluid and leaded gasoline. I am also in charge of the medical supervision of all mixing plants. In an entirely separate capacity, I am director of a laboratory in the University of Cincinnati which is engaged in the study of occupational diseases and in this capacity I have directed much of the experimental work which has had to do with the problem of handling Ethyl Fluid and the public health problem of the distribution of leaded gasoline. Accordingly I am sending you information in the form of reprints of a series of published articles which deal both with the clinical phase of this matter and the experimental. I send you also a memorandum which was prepared for the benefit of consultants of Ethyl Export Corporation, in which the general policies of the Medical Department are set forth. I trust you will find these of interest and value

Briefly, with reference to the dangers of this occupation, it should be said that if the mixing equipment is constructed properly and operated properly, there will be no danger whatever of lead poisoning among the workmen. The mixing equipment is simple in design and easy to operate. The regulations are set up for the purpose of avoiding all exposure to lead compounds. Indeed the actual safety of these operations is so great that there has been no case of lead poisoning in connection with this work, nor has there been evidence of measureable lead absorption among the workmen. One might assume from this that there is no great need of medical supervision. This, however, in my opinion, is not the case. It has been my practice to use the medical examinations as a means of seeking out the slightest evidence of lead absorption. I have also instructed medical men to inspect mixing plants from time to time and to be on the alert to discover any evidence that the regulations are not being adequately carried out. By this double means of examination of the men and supervision of the equipment, I have expected to maintain precise and accurate operations, with the full confidence that if such precision were obtained, there could be no cases of poisoning.

Our experience has shown us that quarterly examinations of the men and quarterly inspections of the mixing plants are quite adequate in maintaining the care which is necessary. I do not believe, therefore, that you will find it necessary to examine the men more frequently than this, nor do I think you need be unduly alarmed about the dangers to the men.

I would appreciate it very much if you would communicate with me from time to time, letting me know of any difficulties which may arise in connection with your work in this field. For my part I will keep you supplied with further information as it develops so that you may be aware of any new factors. In this connection I should, perhaps, invite your special attention to the problem of the cleaning of tanks which have been used for mixing and storing leaded gasoline. I shall not go into the details of this problem at this time since the whole matter is under study, and since we shall soon be in position to issue a publication on it. However the regulations which we have designed for preventing danger to workmen in this type of work are very necessary and should be put into effect. One of the articles which I am sending you makes some mention of this problem and defines briefly the origin of the lead exposure. It is necessary to recognize that in this

exposure we do not fear chronic lead poisoning but rather an acute type of cerebral intoxication which is so dramatic clinically, and which is so serious from the point of view of outcome.

With best wishes for the success of your work, I am

Sincerely yours,

RAK:is

Robert A. Kehoe, M.D.

cc Dr. de Priester

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