

February 19, 1946

Dr. B. B. Reeve, Medical Director,
Standard Oil Company,
910 South Michigan Avenue,
Chicago, Illinois.

Dear Dr. Reeve:

Your letter of January 30 and its attachments raises an old issue which I thought had been fairly effectively buried. Perhaps the simplest way to reply to you is to say that the experimental work of many years ago demonstrated quite clearly that there would be little or no lead exposure in connection with the normal handling of leaded gasoline. This conclusion based on animal and human experimentation has been so fully confirmed by the experience of the last twenty years that there seems no valid basis whatever for the suspicions and contrary opinions of a number of practicing physicians. Except under the most unusual conditions of abnormal handling of gasoline in certain theaters of the war, no cases of lead poisoning of any kind have been seen or substantiated among ordinary handlers of gasoline, such as filling station attendants, tank wagon and refinery handlers of gasoline. As you know, the cleaning of gasoline storage tanks is a totally different problem, since the conditions of exposure are different in a number of important respects.

For the above reasons there is not the slightest basis for even the hypothesis that the man in question contracted lead poisoning from the handling of gasoline. If it could be demonstrated that he had been handling gasoline regularly in such an unusual manner as to give rise to absorption of tetraethyl lead, it would still be highly improbable that his optic atrophy was due to lead absorption. Actually optic atrophy or damage to the visual apparatus has never been seen in connection with tetraethyl lead absorption despite the rather large number of cases that have been carefully followed and studied. Indeed there has been no peripheral neuritis among these persons.

As to one question raised in Mr. Axtell's letter attached to yours, concerning the absorption of lead out of gasoline through the skin, you can assure Mr. Axtell that there is ample evidence to demonstrate that absorption of lead does not occur by this means. It has been demonstrated beyond any possible doubt that the dilution of tetraethyl lead with gasoline to the extent of that which occurs in connection with leaded gasoline, so interferes with the absorp-

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tion of tetraethyl lead as to prevent it completely for all practical purposes. In fact, it is necessary to have tetraethyl lead in gasoline in concentrations well in excess of one part per thousand by volume to be able to find any evidence of lead absorption through the skin. I do not know of any way in which I can be of assistance to you in this matter other than by giving you the information above. As you know, some of the evidence to which I refer has been published and is available in medical literature. If I can be of any further help to you, please do not hesitate to let me know.

Sincerely yours,

Robert A. Kehoe, M. D.

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