

July 5, 1961

Dr. Franz Engel
13 b Simbach/Inn, Ndb.
Bavaria- Western Germany

Dear Doctor Engel:

Your letter of March 12, addressed to Dr. Katharine R. Boucot, has come to my desk by a circuitous route. As Dr. Boucot told you in her letter of March 17, she referred it to Dr. Raymond Smith. Dr. Smith referred it to Mr. Charles Xintaras, a member of the Division of Air Pollution of the U.S. Public Health Service, who after discussing it with one of his medical associates in the Service, talked with me about it and finally forwarded it to me in the hope that I would make reply.

As you may or may not know, I and certain members of our staff have been involved in the investigation of lead in relation to industrial and public health for many years. I agreed to communicate with you, therefore, to do what I can to answer your questions, and on the other hand to learn from you what you and your associates are doing.

I am especially interested in knowing the extent and the nature of your solution of the problem of purifying motor exhausts, both with respect to lead and other constituents. Anything you can tell me about this will be appreciated, especially if it is documented by reports or publications. What you say about these matters sounds too good to be true, and I have hope, therefore, that you have worked along new and hitherto unexplored lines.

With specific reference to lead, the problems of toxicity have had extensive investigation along certain lines which we believe to be important. I shall be happy to send you reprints of publications of articles on this subject, and especially those involving a series of lectures which I gave in London last October. These are appearing in the Journal of the Royal Society of Public Health and Hygiene as a series of articles, and reprints will be available soon.

With respect to the potential carcinogenic properties of lead, I must confess to my complete lack of any information that would justify my belief that there is any present problem. Not only is there no reason, so far as I know, for suspecting that any lead compounds are carcinogenic, but, as you are probably aware, certain lead compounds have been projected for use in the therapy of cancer, on the basis of their apparent ability to destroy new growth or to inhibit their further development. I am not suggesting that lead has been employed with success in the treatment of cancer, what I am saying is that there is more evidence of an inhibitory

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effect than there is of a stimulating effect on metaplasia and hyperplasia. As to any effect of lead compounds on bleeding, I am prepared to accept the fact, but I know of no practical application of it. I would appreciate being enlightened.

You are quite mistaken as to the lack of interest, and even of concern, in relation to lead compounds and their effects in the United States. There has been a considerable volume of work in a number of places, and the problem of lead in the air is under fairly vigorous investigation by ourselves, technical and medical people in the U.S. Public Health Service, and also in the California State Health Department. There have also been some very good work on the characteristics of lead in the exhausts of automobiles. I happen also to know of some excellent work on a method of removing the lead from the exhaust.

If you will be so good as to tell me something of your work, and also clarify your questions concerning the effects of lead, I shall write as fully as I can.

Cordially yours,

Robert A. Kehoe, M. D.

RAK:ss

cc: Dr. Katharine R. Boucot
Mr. Charles Xintaras

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