

January 23, 1963

R. E. Eckardt, M.D., Director
Esso Research and Engineering Company
Medical Research Division
P.O. Box 43
Linden, N.J.

Dear Bob:

We have some data on the "normal" levels of lead in the blood, urine, and tissues of rabbits, which I shall be glad to dig out and have assembled for you. There are no great number, and in my judgment, a considerable variability is to be expected because of the highly variable environmental conditions under which "rabbits" for use in the laboratory (as differentiated from wild cottontails or jackrabbits) are reared before they reach the laboratory. For this reason we have always used controls from the same source in any experiments involving measurements of the outcome of conditions of exposure imposed by experimental consideration. Such animals, in modest numbers, have been the source of the data referred to above. I'll get these data to you as soon as I can get out from under some present deadlines.

As to the maximum allowable concentration of TEL, under industrial conditions, I can best give you my views by sending you a copy of a memo which I gave Dr. Zavon of our staff in response to his query as to the desirability of promulgating such a standard. We may have reason to settle this question some day because of some insistence on listing it among the values now published. I would consider this to be highly unwise, in view of the long and valid experience which has been built up behind the urinary standard, not because it would not be applicable in such operations as those of manufacturing, but because no such standard is ever likely to be useful in field work. Indeed it would be misleading in any situation that was not maintained under regular medical and physiological supervision. I am unalterably opposed to the application of inadequate environmental standards in situations which require medical and physiological standards for the safety of personnel.

What I have said above may not apply in the area in which you are interested, and so I may be missing the point. With respect to the general order of magnitude of the MAC for TEL, all I can say for sure, in relation to human experience, is that it is not too far below 0.075 mg. of Pb per cubic meter, but how far is not known.

Sincerely yours,