

January 20, 1956

Dr. S. C. Shepard
314 Utica Square Medical Center
Tulsa 14, Oklahoma

Dear Doctor Shepard:

I am afraid that no reference can be made to serve your purposes in the case in question. It is unlikely that the alleged source of exposure, by itself, would cause lead poisoning, but it is possible that it could. It is a matter (1) of the temperature to which lead or an alloy of lead was heated, plus (2) the amount of surface oxidation that occurred from time to time, and the degree of cleanliness employed to prevent the suspension of such oxide into the air, - i.e. the total severity of the exposure to lead compounds - and (3) the duration of the period of exposure. The familiar equation of dose x time is the real issue, and this equation has to be known to be able to say that adequate exposure did or did not exist.

If you know, by observation, that the exposure was negligible, you can so testify. If you do not know, you will have to have evidence, either in terms of air analyses (or some equivalent type of information as to the intensity of the exposure), or in terms of too short a period of exposure (dangerous absorption from this source could hardly occur in a few weeks). Otherwise you must show, by suitable analyses of blood and urine (or both) that the absorption of lead was too little to be significant.

My discussion of the sources of exposure in the reference work Industrial Hygiene and Toxicology, Volume II, p. 646 - Interscience Publishers, Inc., New York - edited by Frank A. Patty, may be useful to you, but it will not give you opinion the support it needs.

Incidentally, the real question in this case would seem to be "Did the man have lead poisoning?" What about it? Did he? Do you have analytical evidence one way or the other?

Sincerely yours,

Robert A. Kehoe, M. D.

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