THE ELECTRIC STORAGE BATTERY COMPANY

ALLEGHENY AVE. *and* 19TH ST., PHILADELPHIA

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BATTERIES

February 11, 1942

Robert A. Kehoe, M.D.
Kettering Laboratory of Applied Physiology
Eden Avenue
Cincinnati, Ohio

Dear Dr. Kehoe:

Since receiving your letter of January 8, I have run across an article in the "Journal of Industrial Hygiene and Toxicology" for January, 1942 entitled "The Evaluation of the Lead Hazard in the Decorating Department of a Glass Plant", in which there is an effort to correlate lead exposure in terms of air concentration with that indicated by your analysis.

As this bears directly upon the subject of our correspondence I am enclosing a photostatic copy herewith in the hope that you will give me some comment on your present thinking, for our guidance.

Yours cordially,

L. B. F. Raycroft, Manager
Public and Industrial Relations

LBFR:D
Enc.

January 8, 1942

Mr. Louis Raycroft,
The Electric Storage Battery Company,
Allegheny Ave. & 19th Street,
Philadelphia, Pennsylvania.

Dear Mr. Raycroft:

I have tried to decide what I should reply to the question in your letter of December 8. This and other things account for my delay in replying. I have finally decided to be somewhat wary in my reply and to accept the fact that facts are insufficient to enable one to reply in an entirely straight forward manner.

My general opinion would be that concentrations of the order of magnitude of 2 mgs. per 10 cubic meters of air would be about right. On the other hand, one must recognize that the state of subdivision of the lead is important. Lead in the form of fumes or vapors is more dangerous, I believe, than in the form of larger particles as they exist in dust. There is also the question of exertion which has a very practical influence upon the pulmonary ventilation, and, therefore, upnn the total quantity of lead actually inhaled. My opinion is based in large part on our experience with a mixture of organic vapors and dust. The absorption here is probably much more complete than in the case of most other lead compounds, and, therefore, conditions of exposure which would be safe in the case of these materials ought to be safe any where. Our experience indicates that if the exposure is maintained below the level of 2 mgs. per 10 cubic meters,no difficulty occurs.

I believe the facts will be available within a reasonable period of time to enable us to answer your question. As you are probably aware, our work entitles us to speak of safety more certainly in terms of levels of lead excretion. When we have had enough experience in correlating lead concentrations in air with lead excretion, we shall be able to answer your question much more satisfactorily.

With kindest regards,

Cordially yours,

Robert A. Kehoe, M. D.

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December 8, 1941

Dr. Robert A. Kehoe
Kettering Laboratory of Applied Physiology
Eden Avenue
Cincinnati, Ohio

AABM Annual Convention----1941
Industrial Hygiene Session

Dear Dr. Kehoe:

I am just returning * your "abreviated abstract" of your talk to our Convention and I want to express my appreciation of your preparation of this paper for our minutes.

There is one question which I wish you would express an opinion on, and that is the level above which dosages are dangerous in terms of concentration of respirable lead in the atmosphere, assuming continuous exposure for years at the nominal work week of 40 hours,—8 hours a day for 5 days a week.

With best regards, I am

Yc

L. B. F. Raycroft, Chairman
AABM Safety and Health Committee

LBFR:D

* to Mr Smithers.