

August 2, 1937

Dr. Carl M. Hillenbrand
Plant Physician
Harrison Radiator Division
General Motors Corporation
Lockport, New York

Dear Doctor Hillenbrand:

I am sending you herewith reports on [REDACTED] and [REDACTED]. The result on [REDACTED] is within normal limits, while that on [REDACTED] is probably not significantly high from a clinical point of view, but is indicative of some slight lead exposure, or it is at least suggestive of such exposure.

I am also sending you the complete set of results on the blood samples and the spot samples of urine which I obtained while at the plant. These are for your information and for the sake of seeing the range of values which it is possible to obtain in a group of men who show no clinical evidences of intoxication. I have checked with a lead pencil those results which are sufficiently high to raise some question in one's mind as to their significance, if clinical symptoms of any kind were to develop. However, there is only one, namely that on [REDACTED], which is associated with such symptoms and physical findings as might be interpreted as toxic symptoms due to lead. As I have indicated in a letter which I wrote Mr. Jenkins a few days ago, I think all of these symptoms and physical signs are best explained otherwise, but the coincidence of such findings with a urinary value of 0.17 is suggestive. I would not take these too seriously until we have obtained the results on Scott's large samples since, in our experience, relatively high fluctuations can occur in spot samples. Moreover there is always the possibility of slight contamination.

In transmitting these results to you, it is perhaps well to indicate that in a group of men whom we have been following for years, we see occasional results, even in large samples, as high as two tenths of a milligram per liter in the urine in men who are, so far as we can determine, without symptoms or

clinical evidences of intoxication. However, such persons have a tendency from time to time to report at least vague subjective symptoms suggestive of definite effects from lead. I am personally convinced that in a group of men whose results are more or less consistently in excess of 0.15 milligrams per liter, bona fide cases of lead intoxication with vague and, perhaps, with nervous system involvement will be found.

As I have indicated to Mr. Jenkins, my report on all the data assembled thus far will be sent along within the next few days.

Thanks for your best wishes for my holiday which I hope to be able to start in ten days or two weeks.

Cordially yours,

RAK:is

Robert A. Kehoe, M.D.