

April 15, 1948

Dr. Merrill P. Benoit,
Plant Physician,
Harrison Radiator Division,
General Motors Corporation,
Lockport, New York.

Dear Dr. Benoit:

I must apologize for the prolonged delay in replying to your letter of March 9. I have had to be out of the Laboratory more than half of the time since March 9, and since I have been very pressed for time none of my correspondence except that which was immediately urgent has been cared for.

I am very much afraid it would be impossible for us to undertake to supply stock stains. For one thing we would be engaging in commercial activities which it seems necessary for us to avoid, in view of the fact that this is a laboratory in a university that is supported in part by taxation and is free from tax liability on the theory that it does not engage in business activities of any kind. Moreover we should find ourselves compelled to supply numbers of people if we ever began the procedure. Moreover there is no reason why you should not be able to make a stain for this purpose equally as well as ourselves. The only problems relate to obtaining proper materials. We purchase methylene blue (Certified Stain for Bacilli) from a local manufacturer, The Coleman and Bell Company, and we also purchase acetone-free methyl alcohol on the commercial market. With these materials at hand it is necessary only to follow the instructions. I enclose herewith a mimeographed sheet which contains all the information on this subject that is required for obtaining satisfactory results. If you have any further difficulties, and if you would describe as nearly as possible the defects in your results, we can probably figure out what the difficulty is likely to be. Actually, as the instructions indicate, some little trial and error procedure may be necessary to get the best results. This is true generally of staining procedures, and I believe that Mrs. Lloyd should be able to work her way out of these difficulties with any batch of stain that is made according to instructions.

If this advice should not work out wholly satisfactory, we could send you a small bottle of stain for you to compare with your own. However, I think you should have no very serious difficulties.

I feel that I should point out to you that the examination of the blood for stippling may not be depended upon to establish the extent and the significance of the lead absorption of individuals or even groups of workmen. I know something of your plant, at least as it operated a number of years ago, and if conditions have

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been maintained as they were, the risks of lead intoxication among your personnel are not very great. On the other hand, there is no satisfactory correlation between microscopic blood changes and the severity of lead exposure, and if the conditions are dangerous or potentially dangerous, this procedure alone will not enable you to detect cases of lead absorption before the development of symptomatology. I could heartily wish that we could convince medical men of the truth of this statement. Everyone who has followed individuals through periods of hazardous lead exposure has found this out to his own sorrow, and yet medical men, by and large, insist upon using it as their method of control. Actually it can be regarded as satisfactory only when the environmental conditions are under such a degree of control as to keep the lead exposure within safe limits. I do not mean that the method is altogether useless, or that it should be discarded. However, it should be only one of a number of procedures. Certainly if there is any doubt as to the status of the individual, he should neither be removed from his job nor allowed to remain on the basis of the amount of stippling found in his blood. In the one instance men will be deprived of a continuation of their work without proper reason, and in the other case one will fail to detect men whose lead absorption has reached dangerous levels.

Cordially yours,

Robert A. Kehoe, M. D.

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