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Mr. David A. Jackson
Inland Metals Refining Co.
651 East 119th Street
Chicago, Illinois 60628

Dear Mr. Jackson:

I should dislike very much being guilty of giving advice which runs even slightly counter to opinions and regulations of OSHA especially as to the significance of concentrations of lead in the blood of workmen in the lead trades, since so much credence is given to what may, in the specific instance, turn out to be not very useful information.

In the first place the precision of the analytical data is not so readily assured, in many instances. Then, as a matter of fact, a figure of 60 ug per 100 grams (more or less), in many laboratories, may turn out actually to be 80 ug or more. Or, the fact is that the figure of 60 ug per 100 grams of whole blood obtained at one time in the day, may be 80 ug, two hours later or earlier. This is to say that an actual variability is encountered so frequently that it is necessary to make multiple analyses to learn the true mean concentration. Moreover if the results on a man tend to increase at a certain rate from year to year, the question arises - and cannot be answered - how long will it be before the concentration becomes too high to be borne?

In short, if you are speaking of a gradual rise of two (2.0) ug per year, the mean value will be beyond the limit of safety only a short time later. Thus the level of lead concentration in the blood (when certainly valid) is interpreted only at that time but not some days, weeks or months later. I regard it important to know what the rate of increase is, and this, of course, means that when a man can be shown to be "on the rise" as the result of his exposure, and is being exposed to a dubious level of lead absorption, he is not on safe ground.

If, for example, none of a group of men under conditions of exposure can be shown not to increase from year to year but remain relatively constant at a low level of exposure, the exposure can be regarded as within the limits of safety, but if other men within the group show a steady increase the situation (for them) is unsafe. What are they doing that differs from the other men?

It is for this reason that I have always advocated competent medical and engineering supervision so as to maintain a safe degree of exposure for all and at all times. I realize, of course, that this type of control is expensive, but I maintain that unless the control is known to be effective - that is, so long as there is doubt, the expense associated with existing hazard is fully justified.

Lead poisoning is not always gravely disabling, but it sometimes is and when it is, there is tragedy, which, in my view, should not be tolerated in any civilized community, as a consequence of earning one's daily bread.

This, I fear, has the sound of preaching, but it is a doctrine which should be advanced and achieved in connection with the days work. OSHA, I believe, is not as demanding as I am.

Sincerely yours,

Robert A Kehoe

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Professor Emeritus of
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