

June 18, 1934

Dr. Bradford C. Scudder
Medical Director
The Grasselli Chemical Company
Cleveland, Ohio

Dear Dr. Scudder:

I am sending you herewith three copies of the analyses which have been completed up to the present time, and you will note that only a few remain to be done so that it is possible at present to give a brief analysis of the situation.

Let me call your attention to the fact that we have not yet received the pads from the respirators, and that the results on these will be of considerable importance since they will show the exposure from a somewhat different angle. We should have the results on these before our data are complete and entirely satisfactory.

By way of preliminary orientation, let me point out that the normal figures for lead have a mean figure of about (.2) mgs. per sample of faeces, but that the normal figure sometimes goes as high as (.5) mgs. I think we are safe in arbitrarily setting the level of normality here at such a figure that any amount above (.5) mgs. may be regarded as a significant and definite lead exposure. The urines of normal individuals rarely run in excess of (.06). Any figure of (.10) or over is, therefore, definitely above the normal range. As to arsenic, the concentrations in normal individuals, in our experience, rarely exceed (.06)mgs. so that if we set (.1) as the proper level of normal, we shall have a fairly satisfactory criterion.

It is quite apparent from the results that there is a significant exposure to lead in the insecticide plant and in the Zinc Oxide plant. Judging from the observations which I made in both of these plants, the use of respirators has materially reduced the hazards. I am somewhat surprised to find that respirators are as effective as the figures indicate. Despite the respirators, however, it is apparent from the faecal figures that a fair proportion of the men are exposed to considerable amounts of lead. It is also apparent from the distribution of high findings in the urine that a number of the men have been absorbing lead in significant amounts as a consequence of their exposure. I would confidently expect that under these conditions cases of lead poisoning might

your part in this direction.

Let me again say that I believe analyses on the dust pads will yield very valuable information. It is possible that there may be a correlation between the high findings on the masks and the high findings in the excretion of the men.

I have turned over to Dr. Machle the completion of the report of this work, and when it has been completed he will send in a bill for the work.

When I return I should be glad to go over the whole set of results with you if you wish it in order to add anything to the usefulness of the report which can be added. However, I have every confidence that Dr. Machle will be able to interpret the findings as adequately as I can.

With kindest personal regards,

Cordially yours,

RAK:IS

Robert A. Kahoe, M.D.

Note: No copies of this letter or of the report have been given out elsewhere.