

June 1, 1955

Dr. R. H. Thompson
11318 Miles Avenue
Cleveland 5, Ohio

Dear Doctor Thompson:

My letter of May 14, which was a combination of a form letter which didn't quite fit the situation (it was designed to fit most of our enquiries and to limit the flood of correspondence which has swamped me at times and has caused undue delay in replying), and an additional letter to make up the deficiency. I'm afraid the combination failed to convey my intention. While I do not wish to interfere in any way with your effort to obtain this professional service elsewhere, it seems only a courtesy to explain my purpose more fully, and it is something of a duty to clarify the function of this investigative and educational institution.

I undertook to point out an apparent fault in the approach to the situation. The analyses of samples of urine of small volume obtained occasionally from a scattering of workmen will not portray the hazard of an industry, on the one hand, or the hygienic status of the individual men on the other. The variability of the excretion of lead in the urine is such that one must have a series of samples from any one man, in order to establish the general or average level of his excretion of lead. This can be done, but it is troublesome and expensive. The alternative is to obtain and analyse a sample of blood, either with or without a sample of urine. The concentration in the blood is not subject to wide variations, but rather it clearly indicates the man's general level of lead absorption at the time of the sampling. This fact is not generally understood, and therefore many people, including physicians, do not obtain the information they need to do the job they are attempting. If one knows the level of lead concentration in the blood, one knows certainly, whether the man is in a safe status. No other analytical result will give that kind of information.

Leaving the individual man out of consideration for the moment, the conditions in a plant, with respect to the various specific jobs, can be learned by obtaining and analysing a representative number of samples of the urine of the men engaged in the individual jobs. The variability of the individual results will tend to neutralize each other, and the average of the results which apply to a specific job will reveal the extent of the absorption of lead associated with the job. This can be done effectively, by the collection of a sufficient number of samples, but it too is expensive, since one has to have a sufficient number of results to be statistically valid. The alternative is to combine the two procedures in dealing with a relatively small number of men whose exposure is in question, and to obtain both samples of blood and urine from such a limited number of men. Each set of results will then reveal the status of that individual

Dr. R. H. Thompson - (2) - June 1, 1955

man, and the combination of these will show, as nothing else will, the conditions of the plant insofar as they are represented by the men under examination.

This technique of approach to the problem is one which we have developed step-wise out of wide experience, and I have sought to demonstrate its effectiveness and to explain its rationale, to those who have come to us for advice and help. It is far from being the simple rule of thumb procedure which many have tried to make it.

The other aspect of my letter related to our functions as a university laboratory, which combine education, improvement in hygienic standards in the lead trades, and gathering information for ourselves. We are prepared to carry on analytical measures of control in situations in which we know what we are doing, and from which we can observe the status of various lead trades. We cannot engage in analytical services for fees, out of which we gain nothing of information and into which we put nothing of sound advice and guidance. In short, we conduct a consultation practice in this field for our own educational benefit and that of industry. We maintain it as long as the relationship is mutually beneficial, but as soon as we can do so, we attempt to aid industrial organizations in the knowledge of their problems and in their own solution of the medical and engineering measures of control. The analytical end of it, while it involves skill and precision of a high degree, is merely the means to the end of adapting physiological knowledge to the interpretation and control of an industrial hazard.

I have gone to some trouble to point out these matters, largely because I was somewhat negligent previously through being pressed for time. It is important that these matters be understood, for a number of physicians who do not understand the problem have discarded the analytical means of control as being ineffectual. So they are, unless one knows what to do and what the results mean.

Sincerely yours,

Robert A. Kehoe, M. D.

RAM of

KE 0007481

ROBERT H. THOMPSON, M. D.

11318 Miles Avenue

Cleveland 5, Ohio

Phone DI. 1-7755

May 27, 1955

Dr. R. A. Kehoe
Kettering Laboratory
Cincinnati, Ohio

Dear Doctor Kehoe:

I assumed, from your letter of May 14, 1955, that your laboratory would not be interested in repeating lead examinations on our employees, once you have established whether a hazard is or is not present.

Since we are interested in periodic checks on these men, I have solicited the services of another laboratory.

I appreciate your willingness to get us started on our program, and hope that, if any health problems arise, I may be able to ask your advise.

Sincerely yours

R. H. Thompson, M.D.

R. H. Thompson, M.D.

RHT:lh

KE 0007482

N 7016 01

May 14, 1955

Dr. R. H. Thompson
2910 Harvard Avenue
Cleveland, Ohio

Dear Doctor Thompson:

I enclose with this note a form letter, which gives some necessary information. I am compelled to resort to this procedure because of the time required otherwise in correspondence on these matters.

The letter, however, does not cover the situation posed by your request. You do not make clear what your purpose is in connection with these analyses. If you wish to appraise the significance of the exposure to, and absorption of, lead on the part of this small group of men, this is not the way to do it. I think, therefore, you had better acquaint me with your situation and your purpose, and I can advise you how best to proceed. The results of the analysis of small samples of the urine of this small group of men will not tell you what you need to know. It will be necessary either to obtain samples of blood along with the urine samples, or you will have to obtain a series of samples of the urine of each man. Small samples of urine from a small group of men will yield results too variable to be depended upon.

We do not do analyses for fees, since this is in no sense of the word a service or diagnostic laboratory. However, I will help you with your problem if you will tell me what it is, and provide me with all of the information needed to give you good advice.

Perhaps I need not point out to you that, as a physician, the information you give me will be held in confidence, but since these matters are dealt with so loosely in these days, it seems wise to indicate that this is a medical function. As a matter of professional policy and duty, we often deal with industries through their appropriate officials and physicians, as our patients. We cannot serve them unless we have the information that enables us to understand their trouble, and to prescribe for it properly. But for our acceptance of this professional duty, because of the nature of our facilities, we would not allow ourselves or our regular work to be disturbed and interrupted by services of this type.

In order not to delay you in what may be a serious matter, I suggest that

KE 0007483

N 7916.02

Dr. R. H. Thompson - (2) - May 14, 1955

you obtain samples of blood and urine from each one of these men in containers which I shall supply, with detailed instructions. If you wish to do this, send me word by return mail or telegram or telephone, and they will be sent at once. Then while we are getting these samples and analyzing them, you can inform me on the details of the problem with which you are concerned. If these men are ill, I shall want full information about them. If they are under investigation as representatives of a certain type of lead exposure, I shall need the story of their employment and their specific hazard. In any case, I should like as full information on their occupational and clinical status as is necessary to provide you with an adequate interpretation of the analytical results in relation to the situation with which you are presented.

Cordially yours,

Robert A. Kehoe, M. D.

RAK ef

Enc.

KE 0007484