March 3, 1941

Dr. R. J. Ness
2045 Birch Street
Denver, Colorado

Dear Jack:

I wanted to write to you last week to thank you for taking such good care of me while I was in Denver, but immediately after my return to Cincinnati, Dr. Kehoe and I went to Washington to lay all of the information that we had received before the United States Public Health Service. Drs. Thompson and Neal, of the Service, were very much interested and concerned about the situation, and are now collecting information for the purpose of issuing certain recommendations for codes to be used to govern plants of this type. They will forward their information to the State Department of Health and the Industrial Hygiene Division as soon as they get it together.

The analyses of the spot samples of urine that I took while in Denver, have been completed and the results in several cases are astonishingly high. [redacted] for example, had 3 milligrams per liter of urine, which is the highest result that we have yet encountered in a case of poisoning of this kind. His exposure must have been enormous. This result was obtained on the small sample that I got the day before he took off into mania. The large samples that were collected in jugs over a period of some days, contained in the neighborhood of 2 milligrams per liter of urine, which in itself is very high, the normal being about 0.03 milligrams per liter. In view of the results obtained I think we were very fortunate that he survived.

Young [redacted], whom you remember we examined in your office, also had close to 2.0 milligrams per liter of urine in the small sample that we obtained. This result is so high as to make it almost certain that he is still having significant exposure and that his history, in which he states that he has not worked with lead for some weeks, is in error. It is quite possible, in fact even likely, that he may have acute symptoms soon, if he has not already had them, and I would suggest that you call either him or his physician and advise him of the fact that he is far from being out of the woods at present.

The results on the other men are all tabulated below:

Name	Mgs Pb/Liter of Urine
[redacted]	0.25
[redacted]	0.18
[redacted]	0.13
[redacted]	0.12
[redacted]	0.04

The result on [redacted] is of the order of magnitude that we frequently encounter in cases of acute intoxication or recent severe exposure, and since he has been steadily employed at the plant, the latter is the probable explanation. Symptoms are likely to result in his case. The findings on [redacted] and [redacted] are consistent with those found for a few weeks after acute intoxication. [redacted] is within normal limits and is consistent with the clinical findings in his case. You may remember that the only symptoms that he had were one or two sleepless nights and some nervousness.

The spinal fluid obtained from Loehr had 0.04 milligrams of lead per 100 cc. This is somewhat higher than we usually find, but does not represent any where near the same order of increase as is found in the urine or blood. Other cases have had similar behavior, the urinary excretions being by far the most sensitive and accurate index of the magnitude of exposure and absorption.

At the time I left Denver, I neglected to leave in your hands mailing tubes and bottles for collection of other samples of blood and urine. It may be a matter of some interest to you to follow [redacted] urinary excretion at weekly or biweekly intervals for the next month or so to see how long it takes him to return to normal, particularly if it falls upon you to decide the extent of his disability or degree of recovery. These patients do not usually return to normal and become free of symptoms until the urinary excretions have reached normal levels. If you are interested, therefore, and want this type of information, please let me know and I will see that the containers are sent to you at once. I believe this would make a very good case for you or Phil, or both of you, to present to your local medical group, and should you wish the clinical and analytical data that I got on the other patients, I shall be glad to let you have it.

I got back from the East and stepped into the chain gang again on Saturday morning and found myself working all day Saturday and Sunday morning, so by now I am already a little homesick for the old Judge McKenna, and the pleasant atmosphere of Denver. I hope that I can trump up some excuse for coming out again.

Please remember me most kindly to Ruth and the children and remember that the latch-string is always out and that we want to see you when you come East. If you find time, please drop me a note and let me know how Loehr and the other boys are coming along.

Cordially,

WM:vr

Willard Machle, M.D.

KE 0021308