

E. I. du Pont de Nemours & Co
(THE METABOLISM OF LEAD)

October 22, 1968

Mr. Donald R. Diggs
Petroleum Chemical Division
E.I. du Pont de Nemours & Company
Wilmington, Delaware 19898

Dear Don:

I am sending two copies of a progress report which has just been finished, in which a positive response has been obtained to the exposure of Subject S.S. to lead in the concentration of 20 micrograms per cubic meter of air. The extra copy might go to Dr. Stopps, if you agree.

This is an interim report, the significance of which arises out of this positive result. The experiment is continuing with Subject D.H., who was introduced into the experiment to fill out the incomplete performance of Subject H.R., who, with our approval, terminated his efforts as a subject. Subject D.H., after preliminary observations extending over about six months, took up where Subject H.R. left off, and will continue to the end of the experiment. This has prolonged the time for the completion of the experiment, but has not, it seems, dislocated it otherwise. I anticipate that the results will be similar to those yielded by Subject S.S., and I consider it desirable that such evidence be made available.

I shall report at greater length and in greater detail on all of the experiments which have related specifically to this aspect of the problem of lead in the ambient air. It will be something of a job to assemble all of the data on the six subjects involved in these experiments, but this can be done, I believe, while the experiment is being finished. The resulting report should be sufficiently complete to document the position which emerges naturally out of the investigation, and should, with other considerations, provide the basis for a standard. From the report should come a definitive publication. Until this report can be prepared, no useful purpose will be served, I believe, by a wide distribution of this interim report. I have prepared only ten copies.

The report, as it is, was prepared to respond to Dr. Plancey's request for a "brief" progress report for his use on October 18, 1968. There is little doubt as to the validity of the general interpretation which I have made of the data. They have not been examined critically, however, in the statistical sense, and some further details may come to light when all of the relationships have been examined. I think it very likely, too, that when all of the products of time x concentration have been set down and examined, a series of tolerable values will emerge to point the way to a level of concentration which will be satisfactory for continuous respiratory exposure. This, however, remains to be seen. As an alternative, the way may be indicated to a further crucial experiment.

One copy of this report has been sent thus far to each of the following: Dr. Plancey, Dick Scales, George Roush, Don Fowler. The two enclosed here complete the list of recipients outside the Kettering Laboratory; Dr. Tepper, of the Laboratory, has one copy and three remain in my hands. Others can be reproduced, if they are required.

With best regards,

Sincerely,

Robert A. Kehoe, M.D.
Professor Emeritus of
Occupational Medicine

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