

July 15, 1968

Mr. Charles R. Rosenberger
Program Analysis Officer, Office of Research Grants
National Center for Air Pollution Control
Ballston Tower II, 801 North Randolph Street
Arlington, Virginia 22203

Re: ORC/NCAPC AP-00220

Dear Mr. Rosenberger:

I must beg your forbearance and that of your associates in the Center for the tardiness of my reply to your letter of May 20 concerning publications in connection with the project designated, for your purposes, as AP-00220. A series of seemingly pressing matters has occupied me for some weeks to such an extent that only now have I been able to bring my correspondence up to date. Only the more urgent items have been dealt with currently.

I should explain further, I think, why I found it possible to give my response to this matter a relatively low priority, since I do not like to seem to be lacking in courtesy or responsibility.

A systematic investigation of the behavior of lead in the human organism, that of healthy, young men, under well-controlled conditions, was initiated in 1939, and has been carried on since. The fate of inhaled particulate compounds of lead came under investigation in 1950, after some ten years of following the course of lead taken into the alimentary tract, and was scheduled to investigate the variables of dosage and particle size. The original plan was to go on into that of the variable of the chemical composition of inhaled particles. However, the question of the physiologically tolerable concentration of lead in the air began to assume immediate importance in 1958, so that the schedule was altered in 1959 to begin the examination of this aspect of the problem. Members of the administrative group concerned with air pollution in the Public Health Service became interested in this work in 1962 and joined in its support to the extent of about one fourth of the annual expenditures over the period of 5 years ending near the end of 1967.

Several partial reports have been published for the benefit of professional organizations and individuals, as various phases of the investigation reached stages which justified their appearance, but the complete data have not been presented and can hardly be made available in any other publication than a monograph. The latest of these partial reports, which derives in part from the period of the sponsorship of the Public Health Service, is given in the paper attached to this letter. The work, however, continues, and there is some indication that it may achieve its goal within, or very shortly after the current year. The very nature of the design of the experiments, in which time is the principal variable, gives them a time-consuming quality.

My failure--if it may be so spoken of--to report fully on the work of the 5-year period of the support of the Public Health Service can thus be understood, I believe, on the background of the total effort of research. I shall, in due

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course, present in some detail, and with adequate discussion, the results of experiments which may be expected to provide a documentary basis for a standard of quality, with respect to lead, of the air of the community. It is my opinion, as the result of many years of experience, that such a standard is unlikely to be forthcoming from any other than a physiological basis. At any rate, that is what we have chosen and undertaken to do, and I hope to accomplish it relatively soon.

I believe your professional associates in the Center have all of the publications that have been issued to give the high-lights of these investigations, but if there is any further need for them, I shall do my best to supply them. Unfortunately, the work on the alimentary phase (which is indeed a very important and necessary part of the background information) was published some time ago, so that the available supply of certain reprints is very scanty.

Sincerely yours,

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

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Kehoe, R.A.: Criteria For Human Safety From The Contamination Of The
Ambient Atmosphere With Lead. Proceedings of Fifteenth International
Congress on Occupational Health, Vienna Austria, Vol. III, 83-98, 1966.

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