

April 26, 1943

Mr. U. E. Bowes, President
American Structural Products Company
Toledo 1, Ohio

Dear Mr. Bowes:

I appreciate the frank comments in your letter of March 31 and sense considerable disappointment on your part concerning the manner in which our investigations were conducted and the results obtained.

It is my impression that this stems in large part from certain administrative and financial difficulties precipitated perhaps by mutual misunderstanding. I am unable to identify a weakness in our scientific approach and must take exception to your view that reports of value to you have not been forthcoming.

It disturbs me greatly to have you entertain any degree of disappointment concerning our studies apropos the biological activity of an industrial dust. Therefore, I should like to present a summary of our efforts in your behalf and trust that it will influence you to change your views.

1. February 2, 1943 - Two samples of "Hydrous Calcium Silicate" (Rotoclone Dust and Sander Dust) - received from Owens-Illinois Glass Co.
2. May 31, 1944 - Report submitted by the Saranac Laboratory identifying the investigations made and the results thereof.

(1) Rotoclone Dust:

- a. X-ray diffraction studies
- b. Petrographic studies
- c. Animal assays

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(2) Sander Dust:

- a. X-ray diffraction studies
 - b. Petrographic studies
 - c. Animal assays
3. June 17, 1944 - Received a check
for this service \$250.00

Extended Studies

1. December, 1944 - Authorized to proceed with investigations at \$5,000. per year.
2. February, 1945 - Experiments started.
3. May 10, 1946 - First report submitted giving evidence that inhaled Kaylo fails to produce pulmonary fibrosis. No evidence of effect on an associated tuberculous infection.
4. October, 1946 - Death of Doctor Gardner.
5. February 5, 1947 - Visit by Mr. Hazard and Doctor Shook to determine status of investigations.
6. October 30, 1947 - Second report submitted. Conclusions: Kaylo acts as an inert dust when inhaled into the lung. Its influence on a tuberculous infection is equivocal.
7. January 8, 1948 - Received a check for \$13,750.00 to cover period of investigations from February 15, 1945 to November 15, 1947, inclusive (refer my letter December 12, 1947).

The investigations to date show rather conclusively that Kaylo is an inert dust per se and incapable of producing a fibrosis on inhalation into the lung. This information is of definite value even though we cannot as yet give assurance that Kaylo fails to stimulate a tuberculous process in the lung. I have every expectation that our current studies will enable a very definite opinion in that regard.

Mr. U. E. Bowes

April 26, 1946

I agree that our investigations have taken a long time, but the nature of the studies dictates prolonged observations to make as certain as possible the potentialities of the dust when inhaled into the lungs. This can be determined only after months of observation. It must be so by reason of the fact that the daily increments of dust localized in the lungs by inhalation are of very low magnitude and the inflammatory response of the pulmonary parenchyma to such localizations is so sluggish. Believe me, it demands extreme patience on our part to wait until the desired period of time has elapsed to warrant positive conclusions concerning the potential toxicity of dust when inhaled.

I am certain, Mr. Bowes, that you are aware of the above and that you appreciate also the impossibility of forecasting either the results of research or the time necessary to conduct it. All we can hope for is a confidence that the investigations will be pursued as rapidly and efficiently as possible.

Again, Mr. Bowes, I would be pleased to have your comments. We are proceeding with the investigations in accordance with your authorization.

Sincerely yours,

Arthur J. Vorwald, M.D.
Director of Research.

AJV:LB

CC: Mr. W. G. Hazard

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