May 31, 1944

Mr. U. H. Bowes
Director of Research
Owens-Illinois Glass Company
Toledo, Ohio

RE: Hydrous Calcium Silicate
Animal Experiments

Dear Mr. Bowes:

I am only just now in a position to submit a final report on the results of our animal assay of the physiological effects of your product designated "Hydrous Calcium Silicate".

As received the material was too coarse for animal injection tests. After further reduction in size it proved to be quite toxic when injected into guinea pigs so that it was necessary to repeat many of the tests. However, enough animals survived for a sufficient period so that the general characteristics of the tissue reaction could be evaluated. Such reaction had none of the appearances of a silicosis but did resemble asbestosis.

One would conclude that if the dust of this material were ground sufficiently fine to be inhaled in appreciable quantities it would probably produce a pulmonary disease simulating asbestosis. However, the appended data indicate that in the samples submitted the particle size of the components was such that inhalation of most of the components would be difficult. You are in a better position than we to know whether these samples are representative of the air-borne dust in your plant. In my opinion the dust of this "hydrous calcium silicate" is potentially dangerous if in processing the material the particle size is reduced considerably below that in the samples submitted.

The appended report contains details of the physical and chemical characteristics of the dust samples and of the animal tests made to test its physiological activity.

I enclose a statement for our services.

Very truly yours,

Leroy U. Gardner, M. D.
Director

LUG:RH

P. S. If you could refer me to any literature on the effects of water on asbestos and its subsequent gelation it would be appreciated.

Asbestos Litig.
Saranac Lake
1989 Depos.
Exhibit p.31

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PLAINTIFF'S EXHIBIT
SL-140