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OWENS-ILLINOIS GLASS COMPANY

GENERAL OFFICES - TOLEDO 1, OHIO



November 10, 1949



Mr. J. F. McMahon, Managing Director
Industrial Hygiene Foundation of America, Inc.
4400 Fifth Avenue
Pittsburgh 13, Pennsylvania

Dear Mac:

Some months ago we reviewed with Ted the results of animal experimentation that Saranac has been carrying on for us during the past three years to determine the toxicity of Kaylo dust.

Kaylo is a lightweight mineral, predominantly calcium silicate, made in two forms by our Kaylo Division. One form is a low-density insulation which can be shaped into boards, blocks, or pipe covers; and the other form is a higher-density structural product reinforced with wire mesh suitable for roof decking. It is made by mixing a water slurry of asbestos, diatomaceous earth, silica flour, and lime, which is poured into pans, dried and then autoclaved. Under the right temperature and pressure conditions, practically all the free silica combines with the lime to form a calcium silicate with the asbestos fibers intermixed to give it strength.

For its animal inhalation experiments, Saranac used dust that had been taken from a large Sly dust arrester in one of our Kaylo Division plants. Ted pointed out that it was important to check the composition of this dust against the air-borne dust that our employees in the plant actually breathe. While all the fabricating operations are equipped with good dust exhaust systems, there is a dust exposure when finished slabs are stacked in box cars for shipment. Recent dust counts show this to range from about 25 to 50 million particles per cubic foot as sampled with an impinger.

Last week we collected a "vacuum-cleaner" sample of the dust given off during the loading of box cars at our Sayreville, New Jersey plant. We'd like very much to have this analyzed for its constituents that may have some health aspects, and we'd appreciate it if you could do this for us. This letter is attached to a package containing the dust sample,



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Mr. J. F. McMahon

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If you take the blocks of Kaylo and knock them together, you will see a small cloud of dust is given off. This is the way the dust was generated that we collected with the vacuum cleaner from the air.

It seems to us that it would be well to separate the dust sample into a fraction whose particle size is above five microns, and a fraction whose size is below five microns. Analyses might then be run on each fraction. We are interested primarily in the amount of asbestos present and the amount of free silica. It would perhaps be worth while also to break the free silica component down into crystalline and amorphous silica.

We hope the dust sample is large enough for you to work with--at least so you can give us a preliminary result. At a later date we will probably want to run some additional tests, at which time we can probably get larger quantities of the dust. Since there is some urgency, however, for the results, it would be fine if the present sample could be used now.

Please bill us for the necessary charges.

Dr. Shook and I are looking forward to seeing you next week.

Sincerely yours,

Bill

INDUSTRIAL RELATIONS DIVISION

W.C.Hazard:M