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September 12, 1956

Mr. Dohrman H. Byers, Ass't Chief
Toxicological Section
Public Health Service
1014 Broadway
Cincinnati 2, Ohio

Dear Dohrman:

I appreciate receiving your letter of September 5, concerning the samples I sent collected from the Zonolite Company and your comments on the asbestos situation. However, I believe that in my letter I should have mentioned a circumstance that might change your thinking on this somewhat, in that, even though the ore being treated by the Zonolite Company may have from 8 to 21 percent asbestos content at this time, a very small increase in asbestos content causes several factors increase in dust concentration. In other words, when nearly pure zonolite or vermiculite is being run, the dust concentration is at a pretty constant level. With a very small increase, say, of 5 or 10 percent in the asbestos content, the dust concentration goes up by several hundred per cent. Under these circumstances, the percentage asbestos in the dust in the air would be considerably more than the percentage in the material being processed.

At the first opportunity, I plan to make some analyses, or attempt to make some analyses of the increase in dust concentration with the increase in asbestos content. The company at this time, I believe, estimates the asbestos content of their ore by comparing a sample of material taken off certain size screens with bottles of prepared material in fixed quantities by color. The bottles are laboriously prepared by simply picking out certain number of pieces of asbestos, which is white in comparison to the relatively brown color of the vermiculite, mixing this with a certain number of particles of the same size of vermiculite, and obtaining a certain color. This appears to be about the only method they have of estimating the quantity of asbestos in the material. They take these estimates quite regularly from each lot of ore that is being processed.

I would appreciate any further information you may happen to run across concerning this matter.

Sincerely yours,

Benjamin F. Wake
Acting Industrial Hygiene Engineer