

August 29, 1945

Mr. J. A. McKay - New York

cc: Mr. A. E. Kincaid - Toledo
Mr. J. S. Irvine - New York

TODD SHIP YARD
ERIE BASIN

Your thoroughgoing report of August 21 about the meeting with the group at Todd Ship Yard, Erie Basin, is most interesting, and I agree heartily with you that few things can be so advantageous to us in the long run as a meeting of this sort. I am mighty glad to know that you are going ahead with a program of this kind and that by the time this memo reaches you, a similar meeting probably will have been held at the Todd Hoboken Yard.

Your report confirms my belief that our representatives can do an increasingly effective job for the company by constant follow-up with the industrial hygienists, plant physicians, safety engineers, and production people involved. They are the ones who finally determine the acceptability of our materials from a handling point of view, and it is as important to sell them as it is in the first instance to get an order on the basis of engineering performance.

The question raised by Dr. Miniscalco concerning dust count and precipitation is difficult to answer because so many factors are involved. The relatively coarse wool fibers will settle rapidly in open and unconfined spaces. In enclosed or confined spaces with inadequate ventilation, it will, of course, settle more slowly. This question of settlement is, however, an academic one in view of the fact that Dr. Gardner's research demonstrates that such fibers that do float in the air are not inhalable, and that at worst the presence of such fibers would be only a nuisance characteristic on the job. I recall a statement made in the office of Manfred Bowditch, Massachusetts Director of Industrial Hygiene, in November, 1941 by Dr. Louis Schwartz of the U. S. Public Health Service, when a similar question was put to him by a group of A.W.U. representatives. Dr. Schwartz told these men that although he is not a lung pathologist, he could assure them that they had nothing whatsoever to worry about from fibers that could be seen, since such fibers were too large to get into the respiratory tract, and that the range of fiber diameters in Fiberglas materials was beyond the threshold at which such a hazard was encountered.

From time to time, dust counts have been made at the Newark plant and at the Huntington plant by state officials, and several years ago a dust count was made in Newark by a representative of the Industrial Hygiene Foundation. As you probably know, a hazard may be deemed to exist only

PLAINTIFF'S
EXHIBIT

04973.00

PLAINTIFF'S
EXHIBIT

WV-001489

01 022 0730

Mr. J. A. McEay - New York

-2-

August 29, 1945

if particles of certain sizes are found in certain quantities -- something like several million particles per cubic foot.

In no case was any dangerous concentration developed, and as you know, the only place in our plants where workers are required to where respirators is in the batch house because of a silicosis hazard resulting from exposure to free silica in the handling of sand. Once the sand is transformed into glass, however, the silica changes into silicates, and the silicosis hazard disappears. It is an entirely different story with asbestos. The asbestos fiber is the only silicate that has been determined by lung pathologists to involve a lung hazard. This is because the asbestos fiber is crystalline in structure and microscopically it is snake-like in appearance with many overlapping, almost needle-like, crystals. These crystals contain water of hydration. The asbestos fibers of certain particle size and in certain concentrations can penetrate into the respiratory passages and cause havoc when they reach the alveoli of the lungs where they set up a chemical reaction with body fluids, similar to that found in silicotics.

I understand that only a highly trained lung pathologist can differentiate asbestosis from silicosis. The symptoms are similar: dyspnea (shortness of breath), hacking, unproductive cough, slight elevation of temperature, etc. Thank goodness we don't run into anything of that sort with Fiber-glas.

I think the snake barker act must have been very convincing. I am sending you separately a can of Lan-O-Klean for the relief of such further torture as you care to inflict upon yourself.

Best regards.

Edward C. Ames

ECA:RMC

01 022 0731