

employed conventional dust count techniques which, in effect, related incidence of asbestosis to the number of non-fibrous particles of a size ranging from one to five or 10 microns.

For illustration, suppose the causative dust element is something different, e.g., fibers that are less than 50-60 microns long, and less than 1-2 microns in diameter. The conventional dust count method would be satisfactory only if there were a fairly constant ratio between the two types of dust; it would, in that case, provide an adequate index.

Preliminary Studies on Qualities of Asbestos Dust

With a view to eventual development of supplementary methods for measuring asbestos dust concentrations on a weight basis, we have conducted some preliminary studies directed to the colorimetric determination of total silica in the minute quantities of asbestos dust obtained in a typical atmospheric sample. This requires development since it could provide a valuable tool for further investigation.

Sub-microscopic particles and fibers.

Another aspect of the dust examination problem on which preliminary work has been done involved studies with the electron microscope. We posed the two following questions:

1. Ordinary dust particles, one to three microns in diameter, comprise most of the particles in the dust count. They look like ordinary industrial dust and we refer to them as "cubical" as distinguished from "fibrous" particles. The question is: are these particles in fact non-fibrous or are they bundles of fibers?