

J. P. Verhalen
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P. M. Stampf



March 2, 1967

Letter from Division of Industrial Safety
State of California - Re: Asbestos Dust

During the dust test on March 1, Mr. Bradley was asked to read the above letter and some of his comments were:

The Division of Industrial Safety is an organization which is concerned with accidental injury only. They are not qualified to make the statements in the letter and the information they gave they got second hand. The authority for this type of statement would come from the California State Department of Health only.

The MAC for asbestos is 5 million parts per cubic foot of particles below 10 mic in diameter. With the normal microscope one can see down to 1 micron. Therefore, we count only the particles from 1 to 10 microns.

The standard light field technique means the field in which the particles are is lit up, and this is done by shining light up through the slide into the microscope. Under certain conditions the particles have the same index of refraction as the water medium, and therefore the particles cannot be seen. When this occurs, the dark field technique is used, which means there is a disk placed directly under the slide so the light does not go through the specimen but around the perimeter, and essentially, light is reflected off the particle rather than passing through the particle. The term "phase contrast" means there is a contrast difference between the particle and the liquid phase. In general, one gets about the same particle count with either method.

It is known that there are smaller particles below 1 micron, and these can be measured by higher magnifying microscopes such as the electron microscope - but so what. In all cases when one reports the particles below 10 microns, it is assumed there are many smaller particles that are normally not visible. The only real testing done has been with animals which were given dosages of dust with the 10 micron size down, and these animals always got the very small particles also.

Mr. Bradley said that if one tested air by itself they would find many, many of the fine particles that are normally not reported. Mr. Bradley does not know of any case of lung cancer related to asbestosis and he said asbestos dust causing mesothelioma is very rare. Mesothelioma is essentially irritation of the lung linings which goes away when the dust condition is removed.

I think if the Association plans to reply to this letter it should be written by someone of authority such as Mr. Bradley, or Mr. Bradley should draft the letter for SHPM. In this case, any specific statements made should be qualified with references to substantiate the technical facts.

FMS/ec

cc:

J. P. O'Rourke
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