

review the work that we have undertaken. The asbestos textile mill in Hogansville has been producing textile products since 1941. In 1941, using the Midget Impinger, dust counts were begun at many stations, many times a week and have continued to be obtained for some 23 years. During this time two people have done all the dust counting. The person who is now doing it was trained by the person who used to do it. I should say we do not know what we are counting. We are counting everything we get in the chamber, but we are counting in the same manner.

When this program started we hoped to get some meaningful results. In order to do that, we averaged out the number of counts that were obtained at each station during the year in terms of million of particles per cubic foot and multiplied them by the years. In so doing we arrived at a figure which we called million particles per cu. ft. years, and we did this with each worker, many of whom we have been able to follow.

We constructed a scattergram in which we placed on the ordinate the years of exposure, and on the abscissa the million particles per cu. ft. years. Using this as a baseline (for whatever meaningfulness it had), when we got to a period of some 50 to 60 million particles per cu. ft. years, we began to find people with pulmonary asbestosis. As the million particle per cu. ft. years mounted, we began getting more patients with pulmonary asbestosis.

In terms of what has been considered a safe dust count in the area, we started out with a theory — because everybody said it was so — that 6 million particles per cubic foot was a safe figure. Our own conclusion, as we began seeing what was happening in our own process, was that the only safe amount of asbestos dust exposure was zero and that the efforts in terms of achieving that lay basically in engineering, and, secondly, in education. But as far as a safe level of asbestos dust is concerned, our own conclusion in Hogansville, Ga., is that there is no safe level. The safe level is nil and anything above the safe level represents a risk. I should like to say that the standards which we mentioned, four fibers per milliliter or 3 million particles per cu. ft., are simply standards, although I hope I did not use the word "safe." These are standards which are actually used, although they are not ever expressed as being safe standards. A further standard has been mentioned of 50 to 60 million particles per cu. ft. years. I suppose this is the equivalent of some 2 million particles per cu. ft. concentration. This would be another standard which might be used but it is not necessarily a perfectly safe level of dust.

L. SILVERMAN (Harvard U., Boston, Mass.): I have had some experience in specific uses of asbestos; in particular the asbestos tile industry which is a major consumer of asbestos fiber. With just a few simple applications of control such as switching from jute bags which were shaken out by the worker to be shipped back to the plant to paper bags which retain the

moisture in the conveying system has been eliminated were used and all going to the paper was installed, it

8000 1035

RQ