

SETTLING OF PARTICLES

The United States Public Health Service found that the Sedgwick-Rafter cells should stand from 10 to 20 minutes before counting to allow the dust particles to settle. However, for dust collected in plants making asbestos products, our findings indicate that a longer time is necessary. This dust was allowed to settle in the cell for 30 minutes before any counting was done. We found that this additional 10 minutes is required to permit a complete settling out of the particles. Experiments were conducted to determine the time factor for settling of this particular kind of dust in the cell. Figure 6 is a series of curves showing the settling time of the dust particles. It will be noted that it was necessary to allow the cell to stand 30 minutes before counting.

SUMMARY

Samples of dust, taken in plants for fabricating asbestos products, were collected by a modified form of the standard method, using a 95.0 per cent U.S.P. ethyl alcohol as a medium. In this medium the particles were well distributed and readily counted. When distilled water was utilized as the collecting medium, agglomeration occurred immediately and made counting impossible. Dispersion of the dust in alcohol is good. A settling time of at least 30 minutes was required before counting. The particle count in any given field remained constant after this period. A modified holster is described. It is constructed of leather straps, in such a way that the fluid in the impinger flask is visible at all times.

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