The air samples, taken on membrane filters, were processed, and fiber counts made in accordance with the procedures which have been adopted by the Occupational Safety and Health Administration (OSHA) of the U.S. Department of Labor (Bayer, Brown and Zumwalde, 1975). Essentially, the analysis consists of counting fibers 5μm to 100μm, in a fixed area of a Porton graticule, using phase contrast microscopy at a magnification of 400X. This microscopic method enhances image contrast and allows large asbestos fibers to be readily seen and counted.

When a vehicle is brought into a repair shop for brake lining inspection or replacement, the wheel is removed and loose dust is removed from the drums and back plates, generally by means of a compressed air jet. A recent survey of brake repair establishments in Baltimore and Washington revealed that this is the standard method in those cities (Castleman et al., 1975). A similar situation exists in New York City. The cloud of dust that is produced is visible for several minutes afterwards (Fig. 4). Table III shows that fiber concentrations are high in the operator's area under these conditions (an average concentration of 16 fibers/ml), and that there are significant concentrations at least 20 feet away. Background or area sampling during the same operation shows that, at least 14 minutes after jet air blowing and up to 75 feet away, asbestos concentrations are still measurable even by optical microscopy. The data in Table III indicate that an asbestos concentration gradient, dependent on distance and time, is associated with this operation. It is evident that any person 65-75 feet away can be exposed. Current (interim) regulations of OSHA prohibit concentrations of 5 fibers/ml or more, longer than 5μm, as a time-weighted average for workers, and concentrations above 2 fibers/ml will be illegal after 1976. Regulations set a peak

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