

practice exposure of five minutes to one part per million parts of air is intolerable.

Hygiene control consists preferably of local exhaust ventilation or air dilution by general ventilation.

Asbestos - Brake principally concerned here.

The inhalation of asbestos dust produces a condition known as asbestosis.

Asbestos is the only important silicate apart from talc and mica which does not contain free silica and yet can cause disability and death. If the dust is kept below 5 million particles per cubic foot of air no cases of asbestosis are known to occur.

In Brakeblok, because of the excellent dust collecting systems, dust counts have never been found to be high.

Beryllium - National Bearing Division affected.

It is only in recent years that this metal was recognized as an industrial hazard. In 1945, 170 cases of illness occurred in certain Ohio beryllium plants. Five of these people died. Many cases have been reported from other areas which have been sufficiently authenticated. One can conclude that beryllium is very toxic even though the National Institute of Health bulletin No. 181 published in 1943 indicated that there is no specific toxic action attributable to the beryllium ion.

There are two manifestations of beryllium poisoning: The acute pulmonary disease similar to pneumonia and a delayed chemical pneumonitis now usually called pulmonary granulomatosis.

Most of the cases reported in the literature occurred in the fluorescent lamp manufacturing industry where the exposure was to beryllium phosphors; but six cases of typical pulmonary disease due to the metal were reported from one plant engaged in casting a 5% beryllium copper. Four of these six cases died. Beryllium copper castings manufactured today contain about 0.30% beryllium and to date no hazard with this alloy has been demonstrated.

From the data presently available, it appears that only a few persons are susceptible to chronic berylliosis and that mere traces of the metal in the atmosphere can produce symptoms in them. A susceptible person may show symptoms when exposed to the extremely low value of one microgram per cubic meter of air. Authenticated "neighborhood cases" - who lived near a beryllium plant - seem to substantiate this, since they were exposed to extremely low concentrations of dust.

There are sufficient data available upon which to base a maximal allowable concentration but some investigators believe that in-plant atmospheric concentrations should not exceed 2 micrograms per cubic meter of air as an average for an eight hour day, and that no one should be exposed to a concentration in excess of 25 micrograms per cubic meter of air for any period however short. These are extremely