PLAINTIFF'S EXHIBIT

DOW-943

TOXIC HAZARDS*

ASBESTOS†

Asbestos is a harmful dust, containing chiefly hydrated magnesium silicate, and occurs as a white, fibrous ore. It is used in a variety of products: it may be spun into yarn; the longer fibers are used in the manufacture of cloth, braid, rope and theater curtains; and the shorter fibers are used in the manufacture of insulating boards, felt, paper and cardboard, and in the manufacture of brake linings. Workers engaged in the extraction and manufacture of asbestos, especially spinning and weaving operations, are exposed to the dust.

When inhaled, asbestos causes asbestosis, in which the lung tissue becomes fibrosed. Exposures of four to seven years are necessary for the production of serious asbestosis. The signs and symptoms are those of pulmonary fibrosis, consisting of cough, shortness of breath, weight loss and easy fatigability. In the later stages there may be clubbing of the fingers, increase in the diastolic blood pressure and rales.

X-ray study reveals a granular ground-glass type of change, particularly in the lower-lung fields, and the pleura may be thickened. In silicosis, the entire lung field is equally involved, whereas in asbestosis most of the fibrosis is in the lower third or half of the lung.

Asbestos dust should not be allowed to contaminate the worker's atmosphere. It should be controlled at the point of origin by use of local exhaust systems or wet methods. Approved dust-type respirators may be used for brief periods. When asbestos is used, the atmosphere should be periodically checked for the number of particles in the air. The maximum allowable concentration is 5,000,000 particles per cubic foot of air. Only the fibers that are less than 3 microns in diameter (0.03 mm.) are respirable.

Persons with previous pulmonary or cardiac disease should not be employed where exposure to asbestos dust is a problem. X-ray study of the chest and physical examinations annually should be required of all persons employed in dusty asbestos operations.

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