

composition of the raw asbestos used is shown in tables 2 and 3.

Petrographic and X-ray diffraction examination of atmospheric dust, collected in the dust room with an electrostatic precipitator after the installation of wire brushes, indicated that about 15 per cent of the air-suspended material was chrysotile and about 60 per cent, serpentine; of the balance magnetite comprised 10 per cent, brucite 3 per cent, quartz 2 per cent and other minerals 10 per cent. During the 7-month period before the wire brushes were used the chrysotile content of the atmospheric dust was somewhat lower than 15 per cent but reliable values were not obtained. The dust concentration for the first 7 months of the experiment was about 100 million particles per cubic foot of air. After the wire brushes were installed, the dust counts were higher and the overall average for the remaining 21 months was about 150 million. Size-frequency studies of atmospheric dust collected inside the animal cages revealed that nearly 99 per cent of the components suspended in the air could be classified as clumps or particles; only about 1 to 1.5 per cent was fibers. One-third to one-half of the fibers were longer than 10 microns, indicating a concentration of long fibers of about 0.8 million. This figure is ^{about one-half the estimated} ~~one-half the estimated~~ value of 1.4 million for the short-fiber experiment.

Guinea pigs, rats and mice were used in the inhalation experiment with the 100 per cent ball-milled asbestos dust. The results are summarized in table 3.

Reaction in Guinea Pigs. The experiment was started with 100 guinea pigs. As the dust exposure proceeded, there were 33 accidental deaths,