PLAINTIFF'S EXHIBIT
CSR - 845

63H32002

Tues 9am Dr. Smith

THE EFFECTS OF DUSTS AND FUMES

The respiratory tract is the most common site of damage or disease due to inhalation of dust. However, some dusts cause ill-effects which do not involve the respiratory organs.

Note the definition of Pneumoconiosis, (I.L.O. 1950): "A diagnosable disease of the lungs produced by the inhalation of dust, the term "dust" being understood to refer to particulate matter in the solid phase, but excluding living organisms."

("Diagnosable" means the presence of signs or symptoms, but not always loss of function.)

In considering the possible effects on the body of a dust or fume a number of variants have to be assessed. These are:

(a) the chemical composition.

(b) the particle size range.

(c) the concentration in the atmosphere at breathing zone.

(d) the duration of exposure.

A dangerous material of small particle size in heavy concentration does not require a long duration of exposure to produce its effect, while a substance of minimal toxic properties, of large particle size, and in low concentration, may never produce a significant effect, no matter how long the exposure.

It must be stressed, however, that no dust is completely harmless. There are wide variations in the effects produced on the body but the ability of the lung to dispose of a dust, however inert, is limited and substantial quantities of dust of any kind may overwhelm the body's defence mechanisms. Even if a dust only creates a nuisance, it should be controlled. A further difficulty is that in many processes mixed dusts are found and the effect produced may be different from that of any one component of the dust by itself. Modifying or inhibitory effects of some dusts have to be considered.

Dusts and fumes may be considered in two important groups:

I. Those of vegetable or animal origin (organic dusts).

II. Those of mineral or metallic origin (inorganic dusts).

I. DUSTS OF VEGETABLE OR ANIMAL ORIGIN

(a) Causing Asthma, Irritation, or Inflammation of the Respiratory Tract

Various timbers
Seeds
Grain (e.g. Wheat), Flour
Straw, Hay (e.g. Farmer's Lung)
Tobacco
Gum Acacia
Jute, Hemp
Skins, Hides
Feathers, Wool, Fur

N.B. Some of the above may also cause conjunctivitis or dermatitis.

(b) Causing Acute Bronchiolitis

Bagasse (Bagassosis)

C 4453

(c) Causing Chronic Bronchitis and Emphysema

Cotton, flax, hemp (Byssinosis).