FILE NAME: Ford (FD)

DATE: 1973-1974 Mar

DOC#: FD011

DOCUMENT DESCRIPTION: Internal Report - Brake-Drum Decomposition Products-Current Research Areas

Brake-Drum Decomposition Products-Current Research Areas

March, 1973 - March, 1974

The Environmental Sciences Laboratory is currently studying asbestos exposure in workmen who repair and service brake-linings. Although the area of investigation focuses on passenger vehicles, we are also incorporating studies involving large-passenger and commercial-type vehicles as well. It is the purpose of this research to obtain information regarding asbestos exposure in the automotive maintenance and repair, specifically among men repairing brakes.

We will simultaneously conduct retrospective and prospective health studies on such individuals. We are now gathering data concerning past morbidity and mortality experience. Workmen currently employed in these trades will be examined clinically and followed to determine prevalence and incidence of specific diseases. A cohort of these workmen is currently being developed by our research group.

In addition to the human disease experience, we will also include quantitative characterization of their work environment. Work in this area is currently being done. We have obtained data concerning light microscopic-electron microscopic characterization of dust aerosols liberated from such repair work. We have determined already that, in some instances, a light microscopic observation indicating no asbestos present in the atmosphere may actually conceal several micrograms of asbestos fiber. These particles are visible only by electron microscopy. We are presently characterizing the environments created during the removal of old brake-drums, i.e., "blowing-off" of decomposed brake-shoe dust and the refitting of brake-shoes onto drums by means of grinding techniques. We have dust counts of the ambient environment, in such localities before, during and after brake maintenance and repair. Some of these levels approach and compare with occupational exposures to asbestos.

In addition to the characterization of the atmosphere in this environ-

PROPERTY OF
FORD MOTOR COMPANY

PRODUCED BY FORD