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Research and
Engineering Center
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H. G. Koch

Brake Decomposition Products Public Health Service

During a recent meeting on asbestos and health at the Public Health Service, I learned that the Public Health Service had performed brake wear studies utilising dynamometer equipment at the American Brake Shoe Company in Mahwah, New Jersey. These data were reported on April 8, 1966, to the Assistant to the Chief for Epidemiology and Field Studies, Department of Health by Jeremiah Lynch, Senior Sanitary Engineer, Engineering Section, Research and Technical Services Branch. Briefly, the results showed practically no fiber in the decomposition product at "test temperatures" up to approximately 400-500F. Sample evaluation was by electron micrograph.

When the "test temperature" approximated 700F in so-called panic stops, the overload condition apparently deteriorated the resin bond permitting fiber to be ripped out of the brake instead of being worn off. Approximately 15 per cent of the fiber was visible in this decomposition material. The results are summarized below.

Type of Brake	Test Condition	Per Cent Fiber
Disc brake	normal city driving	less than 5%
Bus brake	normal city driving	0
Auto brake	100-300F	0 (few fibers)
Auto brake	300-500F	less than 1%
Auto brake	600-700F	15%
Auto clutch	normal city driving	0
Bus brake	450-550F	0
Auto brake	400-600F	0 (few fibers)
Auto brake	100-300F	0
Bus brake	450-550F	0

PRODUCED
JM - 83

December 30, 1966

I believe that publication under the auspices of a government laboratory would be far more beneficial than by Johns-Manville. I shall notify you as soon as a firm date has been established for this visit.

There is a great need for education and training
in the U.S. and the British Commonwealth
and the Caribbean area. The British Commonwealth
is a great source of talent and training.

SS/mac

Attn: G. Helmschussel

1. The first group of people who are not in the majority are the people who are not in the majority.

[illegible]

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JM - 83