DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
Consumer Protection and Environmental Health Service
Environmental Control Administration
1014 BROADWAY
CINCINNATI, OHIO 45202

REFER TO:

PLAINTIFF'S EXHIBIT
FD-1619 e

June 13, 1969

Dr. D. E. Hickish
Industrial Hygiene Specialist
Ford Motor Company Limited
Brentwood
Essex, England

Dear Dr. Hickish:

The report you wish to refer to has since been published in the Journal of the Air Pollution Control Association (copy enclosed).

I am not sure I agree with the last sentence in your summary of my conclusions. At bulk lining temperatures of 600-700°F the binder simply burns and lets the asbestos fiber loose. At lower bulk temperatures, within normal operating range, the spot temperature at the point of contact between the lining and drum may be very high, higher even than the decomposition temperature of asbestos. The binder behind the surface remains intact, since it is not nearly as hot, and micro-ablation occurs at the point of contact. This explains why Sinclair at the Johns-Manville laboratories found the magnesium from the chrysotile in the decomposition product but not the x-ray diffraction pattern of chrysotile. The fibrous asbestos had been changed to another, non-fibrous, mineral by the intense heat at the point of contact. Thus, I do not believe that the asbestos comes off unaltered, encapsulated in the binder.

Please let me know if I can provide any further assistance.

Sincerely yours,

Jeremiah R. Lynch

Jeremiah R. Lynch
Chief, Laboratory of Engineering
Bureau of Occupational Safety
and Health

Enclosure

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