

MEMO TO FILE

May 10, 1977

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Subject: Asbestos Substitute Materials Meeting

Materials Strategy conducted a meeting May 6 with Engineering and Research Staff and NAAO Purchasing to clarify Ford plans for replacing asbestos if OSHA regulations reduce allowable airborne asbestos fibers in the work place to 0.5/cc.

Clutches

R. A. Majeske, Chassis and Powertrain Purchasing - surmised that H. K. Porter could meet 0.5/cc but at prices that would reflect additional processing costs. There is also a possibility that H. K. Porter may go out of the clutch facing business or that it would not invest additional money for capital equipment if OSHA regulations increase the complexity of working with asbestos materials.

John Skrbina, Engine Controls, Chassis Engineering - stated that H. K. Porter is working with Borg and Beck (a supplier of clutch assemblies) to develop non-asbestos clutch facings. Performance of the first samples presented to Ford was unacceptable. Additional evaluation samples are expected to be submitted late in 1977. If new clutch facing material were immediately available, required engineering changes would preclude use of them until the 1980 program.

J. D. Wells, Chassis Engineering and Clutch - stated that the Company does not have an alternative to asbestos clutch facing materials and that it would probably be three to five years before a viable substitute for asbestos could be developed.

Brakes

E. F. Clough, Brake Engineering - stated that almost no development work on non-asbestos brake linings is in process. Ford is relying heavily upon its suppliers to develop new products. Ford budgeted little or no funds for non-asbestos brake evaluation. He would appreciate budget support for non-asbestos evaluation.

If an acceptable substitute for asbestos brake linings were available, it would be the 1981 Model Year before it could be used on even a limited number of cars. The problem is more difficult with drum brakes where no known development is in process.

Each brake supplier has a different material composition which seems to work best for certain applications. Developing new materials is likely to be by trial and error.

Marvin Weintraub, Friction Materials, Engineering and Research Staff - reported that Thiokol recently submitted non-asbestos disc brake linings for evaluation. The prototype linings functioned satisfactorily at first but under extended testing developed unacceptable noise and wear.

Dealerships and brake repair shops may have problems with high levels of airborne particles as they work with asbestos linings. OSHA may propose additional rules to address this condition.

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SCF-FORD-1427

HFM - 003346

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Subj: Asbestos Substitute Materials Meeting

Automatic Transmissions

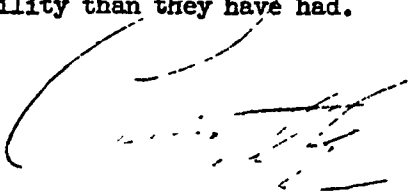
F. H. Abar, Transmission and Axle Engineering - knew of no substitutes for asbestos in automatic transmissions. It would require three years to develop acceptable substitutes. As many as 15 asbestos compositions used in transmissions would require an extended period to recertify replacements if they were available. It would be difficult to simplify compositions in transmissions.

Gaskets

E. J. Duda, Engine Materials - cited communications from Raybestos-Manhattan (attached) and Armstrong advising that both can meet existing and proposed OSHA asbestos regulations. Ford has initiated no effort to replace asbestos gaskets. It would require two or three years to develop substitutes.

Summary

A consensus was that suppliers do not have intensive programs to replace asbestos. They are looking to Ford for direction. There was also an agreement that problems with asbestos are urgent. Development programs inside and outside Ford should be pushed. They should have more visibility than they have had.


D. P. Cratty

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Attachment

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