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POTENTIAL OSHA REGULATION CHANGES - ASBESTOS BRAKE LININGS

This paper reviews current and projected future OSHA asbestos requirements relative to disc and drum brake linings, including the potential effects on capital investment and piece cost. Alternate supplier lining material program status is also reviewed.

Background

The current OSHA law allows two fibers/cc air sampled over an eight-hour period with no single reading to exceed ten fibers/cc air. Most affected lining suppliers have indicated that they expect OSHA to lower the maximum permissible fiber count from 2.0 to 1.0 sometime in 1978 with further reductions possibly down to 0.5 or lower longer term. Bendix expects the new law will be 0.5 not 1.0 fiber/cc. These changes may have a significant impact on the ability of the lining material suppliers and the suppliers involved in shoe and lining assembly (Bendix Hydraulics Division, Bendix Brake and Steering Division, and Kelsey Hayes) to continue to provide asbestos based linings on a cost effective basis if at all. NAAO Purchasing, Material Planning conducted a series of meetings with all affected suppliers to identify current fiber counts, notions to meet the proposed new standard, and costs for meeting new standards including capital expenditures and alternate materials and processes.

Supplier Responses

Supplier information provided at the NAAO Purchasing meetings and followup discussions since are summarized as follows.

- Generally the suppliers indicated that based on past experience with OSHA, whatever new lower fiber limit is adopted they could continue production as long as a plan and timetable to achieve the new limit was established and they could continue to demonstrate progress relative to the plan timetable. Several suppliers indicated, for example, that they continued producing linings out of compliance to the 2 fiber/cc limit for two years after it was made law.
- All suppliers are currently complying with the 2 fiber/cc law.
 - 1 fiber cc limit - With the exception of Thielkol, major capital expenditures and lead times are expected: Bendix: \$1.5M, 1 year, Thermoid: \$0.5M, 6 months, Raybestos: \$13M, 3 years, Thielkol: conforms. Piece cost increase - Thielkol, none, Thermoid, 1 to 5%; all other suppliers "substantial" but undefined.
 - 0.5 fiber/cc limit - Thielkol is installing new preform equipment with which they expect to meet 0.5 limit. If not, a new tumbler and wash system will be required; \$1.1M, 9-12 months, Thermoid: same expenditures as quoted above for 1 fiber/cc limit. Bendix: \$5.5M, timing undetermined, may be impossible, Raybestos: expenditures undefined, may be impossible. Piece cost increase - undefined.
- Supplier non-asbestos lining program status is as follows:
 - Bendix: Development of non-asbestos lining materials is in progress for disc and drum brake applications. Test parts should be available to Ford with supporting test data by early 1978. Semi-metallic disc pads with asbestos in the backing layer only are available now and in use for heavy duty Police car applications. This lining, however, compared to the current released asbestos lining is noisier, has 30% to 40% less lining life, and is a \$1.20/vehicle cost penalty.

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