FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

December 8, 1976

To: Asbestos Study Committee

Subject: Recommended Procedures for Brake Servicing

In my memo of November 16, 1976, in the last paragraph I indicated that I *would discuss recommended procedures for servicing* asbestos dust during brake servicing with Mr. Weaver, acting Chairman of this Committee. I have since reviewed this question with him.

As a brief background, I had earlier been contacted by MOTOR Magazine and State Farm Insurance concerning work practices in brake reline shops. Also, ASIA (Automotive Service Industries Association) would be pleased to cooperate in supporting FMSI recommendations for servicing brake linings.

I had earlier solicited the views of committee members. I received input from Mr. Paul Lee and Mr. Ike Weaver of Raybestos. Both concurred that the attached "Recommended Procedures for Reducing Asbestos dust during Brake Servicing" was the best available write-up.

In recent discussion with Mr. Weaver, he suggested that I ballot the Asbestos Study Committee on recommending to the Board of Directors the inclusion of such a write-up as a page of our Automotive Data Book (red book) and our Brake Shoe Identification Catalog (blue book). It is felt that such a write-up would alert brake service personnel to good procedures in their shops. *Further, it would help brake lining (and clutch facing) suppliers defend* against allegations that they did not notify users on the possible hazards of asbestos exposure.

I am asking that you review the enclosed ballot and return to me in the enclosed return envelope. Similar action will be taken by the Data Book and Technical Committee.

EWD/erc
Enclosure:

E. W. Drislane
Executive Director



PLAINTIFF'S EXHIBIT WV-06117

P-FMSI- 0036

PLAINTIFF'S EXHIBIT 119060

B A L L O T

Friction Materials Standards Institute, Inc.
E-210 Route 4
Paramus, New Jersey 07652

Subject: Publication in FMSI Catalogs of Recommended Procedures for Brake Service Shops

Gentlemen:

	YES	NO
1. I favor the Asbestos Study Committee recommending to the Board of Directors the printing of a page in FMSI Catalogs recommending procedures for reducing asbestos dust during brake servicing.	___	___
2. I favor use of the write-up "Recommendad Procedures for Reducing Asbestos Dust During Brake Servicing" as written.	___	___

3. Those with comment, and those in favor of rewriting the recommended procedures, please enter comments below.

_____

_____

_____

_____

_____

_____

BY _____

Company _____

Date _____

RECOMMENDED PROCEDURES FOR REDUCING ASBESTOS DUST DURING BRAKE SERVICING

Because studies have indicated that exposure to excessive amounts of asbestos dust may be a potential health hazard, OSHA has set maximum limits of levels of airborne asbestos dust to which workers may be exposed. Since most automotive friction materials normally contain a sizable amount of asbestos, it is important that people who handle brake linings and clutch facings understand the nature of the problem and know the precautions to be taken.

1. Areas where brake work is done should be set aside if possible, and entrances should be posted with an asbestos exposure sign as follows:

Asbestos
Dust Hazard
Avoid Breathing Dust
Wear Assigned Protective Equipment
Do Not Remain in Area Unless Your Work Requires It
Breathing Asbestos Dust May Be Hazardous To Your Health

2. The amount of asbestos in the dust from brake lining wear is normally at an extremely low level because of chemical breakdown during use, and if machining of friction material does not take place, simple procedures will minimize exposure. During brake servicing, the mechanic should wear an air purifying respirator, either a throwaway or one with replaceable particulate filter(s), as approved by the Mining Enforcement and Safety Administration or NIOSH. It should be worn during all procedures starting with the removal of the wheels and including reassembly.

3. During disassembly, all parts should be carefully placed on the floor to minimize the possibility of creating airborne dust. Dust should first be cleaned from the brake drums, brake backing plates and brake assemblies using an industrial type vacuum cleaner equipped with a high efficiency filter system. After vacuum cleaning, any remaining dust should be removed by using a rag soaked in water and wrung until nearly dry. Under no circumstances should compressed air or dry brushing be used for cleaning.

4. Of extreme importance are the precautions which must be taken during machining of friction material. This is the operation in brake servicing when exposure to asbestos dust is at its highest. In addition to the approved respirator, there must be local exhaust ventilation such that the worker exposures are maintained at least below the 1976 OSHA asbestos standards. If there is any question as to the efficiency of asbestos dust removal by the machine, the manufacturer should be contacted.

5. Industrial vacuum cleaner bags containing asbestos dust and cloths used for wiping brake assemblies should be sealed in plastic bags and labeled with the following warning label printed in letters of sufficient size and contrast to be readily visible and legible:

Caution
Contains Asbestos Fibers
Avoid Breathing Dust
Breathing Asbestos Dust May Cause Serious Bodily Harm

All asbestos waste should be disposed of in accordance with the OSHA asbestos regulation. During removal of vacuum bags, an approved respirator, as described in (2) above should be worn.

6. All floor cleaning in areas where brakes are repaired should be done with the high efficiency industrial vacuum cleaner as described in (3) above. Under no circumstances should dry sweeping take place. Grinding (arcing) machines should also be cleaned with such a vacuum cleaner and any remaining dust wiped with a damp cloth. An approved respirator, as described previously should be used during this cleaning.

7. Although adherence to the above procedures should minimize any contamination of work clothing, it is necessary that the appropriate sections of the OSHA regulations on asbestos be followed when ceiling levels on asbestos dust exceed current standards. This could involve special clothing, change rooms, etc. At the very least the work clothes should not be taken home but should remain at work for industrial laundering.

8. Proper hygiene practices will help minimize exposure to asbestos dust. Wash thoroughly before eating and do not eat in the work area. Remember, smoking is harmful to the health, and smoking coupled with breathing asbestos dust is extremely dangerous.

CAUTION: DO NOT BREATHE ASBESTOS DUST