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August 8, 1975

ASBESTOS

ASBESTOS EXPOSURE DURING SERVICING OF
MOTOR VEHICLE BRAKE AND CLUTCH ASSEMBLIES

001682

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PRODUCED BY FORD



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DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
CENTER FOR DISEASE CONTROL

NATIONAL INSTITUTE FOR OCCUPATIONAL
SAFETY AND HEALTH
5600 FISHERS LANE
ROCKVILLE MARYLAND 20852

August 8, 1975

Dear Colleague:

This communication is intended to alert you to recently gathered information indicating a potential health hazard for persons exposed to asbestos during the servicing of motor vehicle brake and clutch assemblies.

On July 21, 1975, the National Institute for Occupational Safety and Health convened a meeting of government and university scientists, industry representatives, and labor union officials to discuss the present state of knowledge with respect to this problem. Data was presented by investigators from the Mount Siani School of Medicine in New York City indicating that workers engaged in the maintenance and repair of automobile and truck brake linings are exposed to potentially hazardous levels of airborne asbestos dust. Specific brake servicing operations studied included blow-out of automobile drum brake assemblies, grinding of used truck brake linings, and bevelling of new truck brake linings. Average peak asbestos air concentrations for these three activities based on personal samples taken within ten feet of the operator were, respectively, 10.5, 3.75, and 37.3 fibers (>5 microns in length) per ml. An analysis of samples of brake drum dust revealed that almost all of the asbestos fibers found were shorter than 0.4 microns in length.

Previous studies of the extent of asbestos emissions from automobile brake lining wear showed that only a very small fraction of the original asbestos content of the brake lining is found in brake drum dust (Ref. 1-3). It was presumed that this is due to thermal degradation of the fibers during braking. The present findings indicate that enough asbestos is preserved to produce significant exposures during certain brake servicing procedures.

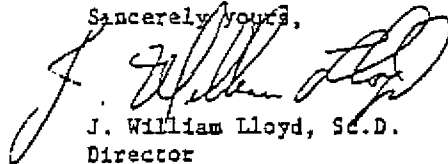
The full extent of asbestos-related disease in brake servicing personnel is not known at present because this particular occupational group has not been studied systematically up to now. However, a review of the scientific literature on the association between asbestos exposure and mesothelial tumors of the pleura and peritoneum has revealed at least four cases of these rare tumors in persons who were employed in jobs involving automobile brake servicing (Ref. 4-6).

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For your information and guidance, we are enclosing pertinent references, estimates of the population at risk, a NIOSH interim recommendation for brake and clutch servicing procedures, and a copy of the Department of Labor standard covering exposure to asbestos in the work place.

The environmental studies of brake lining servicing operations outlined above together with observations of mesothelial tumors in persons so employed affirms the necessity for instituting and maintaining recommended control measures in this industry so that the health hazards of asbestos are minimized.

Sincerely yours,



J. William Lloyd, Sc.D.
Director
Office of Occupational Health
Surveillance and Biometrics

Enclosures

REFERENCES

1. Lynch, J.R.: Brake Lining Decomposition Products. J Air Pollution Control Assoc, 18:824-26, 1968
2. Hickish, D.E. and Knight, K.L.: Exposure to Asbestos During Brake Maintenance. Ann Occup Hyg, 13:17-21, 1970
3. Jacko, M.G. and DuCharme, R.T.: Brake Emissions: Emission Measurements from Brake and Clutch Linings from Selected Sources. EPA Report 68-04-0020, 1973
4. Newhouse, M.L. and Thompson, H.: Mesothelioma of Pleura and Peritoneum Following Exposure to Asbestos in the London Area. Brit J Ind Med, 22:261-69, 1965
5. McDonald, A.D. et al.: Epidemiology of Primary Malignant Mesothelial Tumors in Canada. Cancer, 26:914-19, 1970
6. Greenberg, M. and Lloyd Davies, T.A.: Mesothelioma Register 1967-1968. Brit J Ind Med, 31:91-104, 1974

ESTIMATES OF THE WORKFORCE POTENTIALLY EXPOSED TO ASBESTOS
IN THE MANUFACTURING AND SERVICING OF BRAKE LININGS AND CLUTCHES

Auto Mechanics	833,535
Garage Workers	67,679
Manufacture (original and rebuilding)	<u>6,657</u>
TOTAL	907,871

SOURCE: Adapted from 1972 Census of Manufacturers, 1972 County Business Patterns, and Census of Population: 1970 Occupation by Industry (all are Department of Commerce, Census Bureau publications)

RECOMMENDED (INTERIM) PROCEDURES FOR
ASBESTOS BRAKE AND CLUTCH SERVICING

The National Institute for Occupational Safety and Health (NIOSH) has research underway concerning dust exposures during brake and clutch servicing. Due to preliminary data demonstrating significant asbestos exposures during presently used cleaning techniques, NIOSH has reviewed alternate techniques whereby asbestos exposures are reduced. The following are interim procedures recommended by NIOSH to minimize dust exposures.

1. If possible, an area shall be designated for all brake and clutch repairs. Entrances into this area shall be posted with an asbestos exposure warning 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 Cause Asbestosis and Cancer

2. During brake servicing, an air purifying respirator, either single use or with replaceable particulate filter(s), as approved by the Mining Enforcement and Safety Administration (formerly Bureau of Mines) or NIOSH, shall be worn during all procedures following removal of the wheels including reassembly. During manual clutch servicing, such a respirator shall be worn during removal and cleaning of the clutch, pressure plate and housing assembly and during installation of the new clutch assembly.
3. Dust shall first be cleaned from brake drums, brake backing plates, brake assemblies and clutch assemblies using an industrial type vacuum cleaner equipped with a high efficiency filter system (>99% efficiency for 0.3 μ m diameter aerosols). After vacuum cleaning, any remaining dust shall be removed using a rag soaked in water and wrung until nearly dry. Under no circumstances shall compressed air or dry brushing be used for cleaning.
4. During arcing and riveting operations, an approved respirator, as described in (2) above, shall be worn. Grinding (arcing) machines shall be provided with local exhaust ventilation such that worker exposures are maintained at least below the 1976 OSHA asbestos standard (29 CFR 1910.1001).* At a minimum, the dust bag of the arcing machine shall be removed and replaced with the hose of the high efficiency industrial vacuum described in (3) above.

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5. Industrial vacuum cleaner bags containing asbestos dust and cloths used for wiping brake and clutch assemblies shall 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 Asbestosis and Cancer

All asbestos waste shall be disposed of in accordance with the OSHA asbestos regulation, 29 CFR 1910.1001(h). During removal of vacuum bags, an approved respirator, as described in (2) above, shall be worn.

6. All floor cleaning in areas where brakes and clutches are repaired shall be done with the high efficiency industrial vacuum cleaner as described in (3) above. Grinding (arcing) machines shall also be cleaned with such a vacuum cleaner and any remaining dust wiped with a damp cloth. An approved respirator, as described in (2) above, shall be used during this cleaning.
7. Although adherence to the above procedures should minimize any contamination of work clothing, it is required that the appropriate portions of the OSHA regulations on asbestos (29 CFR 1910.1001(d) (3 and 4)) concerning special clothing, change rooms, etc. be followed.

NOTE: Strict adherence to the above procedures should minimize exposures to mechanics during brake and clutch servicing. These are interim recommendations and are subject to revision pending results of ongoing NIOSH research.

- * Section 1910.1001 of the Code of Federal Regulations was formerly Section 1910.93a. This change was noted in the Federal Register, May 28, 1975.

Prepared By
Division of Field Studies and Clinical Investigations
National Institute for Occupational Safety and Health
Cincinnati, Ohio

holders in submitting such recommendations.

Item 9. Bonus profit sharing and other compensation plans.

Instructions.

(c) If action is to be taken with respect to any plan in which directors or officers may participate, the information called for by Item 4(d)(1) and (2) of Regulation S-K (17 CFR 229.20) shall be furnished for the last five fiscal years of the issuer and any period subsequent to the end of the latest such fiscal year. Aggregate amounts for the entire period for each such person and group, if any named person or any other director or officer purchased securities through the exercise of options during such period, state the aggregate amount of securities of that class sold during the period by such named person and by such named person and each of the directors and officers as a group. The information called for by this instruction 4(c) is a part of the information since the beginning of the issuer's last fiscal year called for by Item 4(d)(1) and (2) of Regulation S-K (17 CFR 229.20). If employees may participate in the plan to be acted upon, state the aggregate amount of securities called for by all options granted to employees during the five year period, and if the options were other than "restricted" or "qualified" stock options or options granted pursuant to an employee stock purchase plan, as the above terms are defined in sections 421 through 424 of the Internal Revenue Code, state that fact and the weighted average option price per share. The information called for by this instruction may be furnished in the form of the table illustrated in Appendix A (§ 240.14a-103). See Instruction 1 to Item 4(d) of Regulation S-K (17 CFR 229.20).

(c) If action is to be taken with respect to any plan in which directors or officers may participate, the information specified in Item 4(d)(1) (i) and (iv)(A), (B) and (C) of Regulation S-K (17 CFR 229.20) shall be furnished for the period from the beginning of the registrant's fifth previous full fiscal year through the most recent practicable date, rather than for the registrant's last fiscal year, and the information called for by Item 4(d)(iii) and (iv) (D) and (E) shall be furnished as of the most recent practicable date. If any person named or included in the group of officers and directors in answer to Item 4(a) of Regulation S-K (17 CFR 229.20) purchased or received securities of any class during that period through the exercise of options or stock appreciation rights (or other rights in tandem therewith), state the aggregate amount of securities of that class sold during the period by any such named person and by such group. If other employees may participate in the plan being acted upon, state with respect to such other employees, (1) the title and aggregate amount of securities sold—(i) to options, with or without tandem stock appreciation rights, granted from the beginning of the registrant's fifth previous full fiscal year through the most recent practicable date; (2) the weighted average

option price per share for such options; (3) the number of shares with respect to which stock appreciation rights were granted, not in tandem with options, during that period; and (4) the weighted average base share price for such rights. (Other tandem rights granted to an employee shall be disclosed in connection with the related prices or appreciation rights.) The information called for by this instruction may be furnished in the form of the table illustrated in Appendix A (17 CFR 240.14a-103). See generally the instructions to Item 4(d) of Regulation S-K (17 CFR 229.20).

Item 22. Vote required for approval.

As to each matter which is to be submitted to a vote of security holders, other than [elections to officer or] the selection or approval of auditors, state the vote required for its approval.

(Secs. 6, 7, & 10, 19(a), 48 Stat. 78, 79, 81, 83; sec. 203, 209, 48 Stat. 808, 809; sec. 301, 34 Stat. 837; sec. 6, 62 Stat. 684; sec. 1, 78 Stat. 1031; sec. 306(a)(3), 90 Stat. 57; sec. 12, 13, 14 15(d), 23(a) 48 Stat. 881, 884, 885, 901; sec. 1, 3 & 49 Stat. 1373, 1377, 1378; sec. 203(a), 49 Stat. 704; sec. 222, 68 Stat. 688; sec. 3 & 4, 78 Stat. 565-568, 569, 570-574; sec. 1, 2, 3, 82 Stat. 454, 455; sec. 23(c), 71, 2, 3-84 Stat. 1403, 1497; sec. 103(b), 88 Stat. 1503; sec. 8 & 10, 1A, 89 Stat. 117, 118, 119, 135; sec. 308(b), 90 Stat. 57; sec. 202, 209, 204, 91 Stat. 1484, 1498, 1499, 1500; 15 U.S.C. 77e, 77f, 77h, 77i, 77s(a), 78d, 78m, 78n, 78p(d), 78w(a))

Authority

These amendments are being proposed pursuant to the authority in Sections 6, 7, 8 and 19(a) of the Securities Act of 1933 and Sections 12, 13, 14, 15(d) and 23(a) of the Securities Exchange Act of 1934.

By the Commission.

George A. Fitzsimmons,

Secretary

February 5, 1981.

Regulatory Flexibility Act Certification

I, Harold M. Williams, Chairman of the Securities and Exchange Commission, hereby certify, pursuant to 5 U.S.C. 805(b), that the proposed amendments published in Release No. 34-17317 (February 5, 1981), "PROPOSED AMENDMENTS TO PROXY RULES AND PROVISIONS RELATING TO SHAREHOLDER COMMUNICATIONS GENERALLY", will not, if promulgated, have a significant economic impact on a substantial number of small entities. The reasons for such certification are that the proposed amendments will apply only to those entities (including small entities) that already are subject to the Commission's rules and regulations, and that these proposed amendments are expected to result in a minor net reduction in costs to all registrants. It is anticipated that the effects of the proposed amendments will not be significant for any class of registrants. Thus, the proposed amendments will not have a significant economic impact on any small entities.

Dated: February 5, 1981.

Harold M. Williams,

Chairman

FR Doc. 81-006 Filed 2-12-81; 8:05 am
BILLING CODE 8010-70-6

DEPARTMENT OF LABOR

Occupational Safety and Health Administration

29 CFR Part 1910

Hazards Identification

AGENCY: Occupational Safety and Health Administration, Department of Labor

ACTION: Withdrawal of Proposed Rules.

SUMMARY: On January 16, 1981, (48 FR 4412-4453), the Assistant Secretary for Occupational Safety and Health issued a proposed standard that would require employers to identify the hazardous chemicals in their workplaces through specific hazard identification and evaluation procedures, labeling requirements and record preservation. The proposed rule is withdrawn. This will permit the Department to consider regulatory alternatives that had not been fully considered and then, if appropriate, repropose the regulation. This process will eliminate the need for the public to comment on a proposal that the Department may change significantly.

EFFECTIVE DATE: February 12, 1981.

FOR FURTHER INFORMATION CONTACT: Mr. James Foster, Room N3641, Office of Public Affairs, Occupational Safety and Health Administration, U.S. Department of Labor, 200 Constitution Avenue, NW, Washington D.C. 20210; Telephone: (202) 533-8151.

Signed at Washington, D.C. this 29th day of January 1981.

David C. Zeigler,

Acting Assistant Secretary of Labor for Occupational Safety and Health.

FR Doc. 81-006 Filed 2-12-81; 8:05 am
BILLING CODE 4510-25-6

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

(A-9-FRL 1750-3)

State Implementation Plan Revision for Lead in Clark County, Nevada

AGENCY: Environmental Protection Agency

ACTION: Notice of Proposed Rulemaking.

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