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Occupational Safety & Health Administration

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Standard Interpretations

02/10/2004 - Current studies on the use of engineering controls to decrease asbestos exposures to mechanics performing brake and clutch repair.

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• **Standard Number:** 1910.1001; 1910.1001(f)(4); 1910.1001(f)(3)

February 10, 2004

The Honorable Patty Murray
United States Senate
Washington, D.C. 20510-4704

Dear Senator Murray:

Thank you for your November 4, 2003 letter to the Occupational Safety and Health Administration (OSHA). You are requesting answers for a set of five questions you have concerning asbestos-containing brake parts used on motor vehicles. Your questions numbered 1 and 5 are specifically related to the U.S. Environmental Protection Agency (EPA) and cannot be answered by OSHA. The remainder of your questions are answered below. This letter constitutes OSHA's perspective only on the matters discussed and may not be applicable to any question not delineated within your original correspondence.

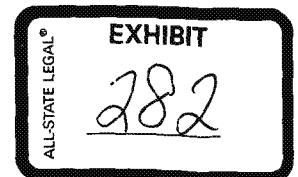
Question 2: *What is the most current EPA and OSHA information on the risks from asbestos exposure faced by auto mechanics working on brake maintenance? If current information is available, is it based on data from small, privately-owned facilities? If current information is not available, why have the agencies failed to collect such information?*

Response: Much of OSHA's current information on the risks from asbestos exposure faced by auto mechanics working on brake maintenance comes from studies conducted by its sister agency, the National Institute for Occupational Safety and Health (NIOSH).^{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13} OSHA relies on NIOSH for much of the research work it requires for carrying out its mission. The NIOSH studies indicate that brake mechanics' exposures to asbestos from brakes at various facilities, including small, privately-owned facilities, have characteristically been below the currently applicable OSHA permissible exposure limits (PELs) for asbestos. These studies were conducted at brake service centers that performed from 2 to 45 brake jobs per week.

In addition, NIOSH has conducted studies to evaluate dust control technologies such as those the OSHA general industry asbestos standard requires at 29 CFR 1910.1001(f)(3) (e.g., HEPA filter-equipped vacuum enclosures). The use of the engineering controls has resulted in a 10-fold decrease in asbestos exposures to brake mechanics.

OSHA also has knowledge of an article that presents a historical analysis of published data regarding the exposure of brake mechanics to asbestos as a result of doing brake work. Likewise, these data indicate that the exposures to asbestos have typically been below

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current OSHA asbestos PELs. (See "An Evaluation of the Historical Exposures of Mechanics to Asbestos in Brake Dust" by Paustenbach, D.J. et al. in *Applied Occupational and Environmental Hygiene*, 18: 786-804, October, 2003.)

Question 3: *What is known about the extent to which imported brake parts containing asbestos comply with the requirements for warning labeling? This is a particular concern because imported brake parts appear to have increased in volume by one-third over the past 2 years.*

Response: OSHA has not investigated the extent to which imported brake parts containing asbestos comply with the requirements for warning labeling. However, an importer's failure to label products containing asbestos fibers generally constitutes a violation of 29 CFR 1910.1001(j)(4)(i). Pursuant to 29 CFR 1910.1001(j)(4)(ii), the labels must comply with the requirements of 29 CFR 1910.1200(f) of OSHA's hazard communication standard. The hazard communication standard requires importers, among others, to ensure that the parts themselves and their packaging are labeled with the identity of hazardous chemical(s), the appropriate hazard warnings including affected target organs, and the name and address of the importer, among others.

Moreover, pursuant to 29 CFR 1910.1001(j)(4)(ii), the labels must have the following information:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD

Question 4: *What activities are EPA and OSHA currently undertaking to monitor the risks of asbestos exposures to auto mechanics, to provide adequate asbestos-related safety information to auto mechanics and the public, and to enforce asbestos labeling requirements and safety standards?*

Response: The current asbestos standard specifically addresses exposures during automobile brake and clutch work. Its provisions at 29 CFR 1910.1001(f)(3) and its mandatory Appendix F set forth the required engineering controls and work practices for performing this work activity.

Federal OSHA and state occupational safety and health agencies with OSHA-approved state plans enforce the current asbestos standard through their inspection programs. Asbestos is examined during routine inspections, but primarily during inspections conducted in response to complaints from employees or as a result of referrals from Federal or State agencies. Regardless of the reason for the complaint or referral, Federal and state compliance officers search for evidence of actual or potential asbestos exposure.

In addition to enforcement, OSHA provides compliance assistance to employers and employees to help them understand the dangers of asbestos and what can be done to minimize the threat. OSHA's web page connects computer users to concise and easy-to-read publications on asbestos, which are available to the public free of charge. Pamphlets explain the requirements of the standard for both general industry and construction. Included in each is a list of sources of assistance. OSHA's web page also includes reports, links to other web sites, slides, and information about taking samples and controlling exposure to asbestos. Furthermore, each state has consultation programs funded by Federal OSHA that help employers understand what they must do to comply with OSHA standards, including the general industry asbestos standard.

Thank you for your interest in occupational safety and health. We hope you find this information helpful. To keep apprised of recent developments, you can consult OSHA's website at <http://www.osha.gov>. If you have any further questions, please feel free to contact the Office of Health Enforcement at (202) 693-2190.

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Sincerely,

John L. Henshaw
Assistant Secretary

¹Sheehy, J.W., T.C. Cooper, D.M. O'Brien, et al. *Control of Asbestos Exposure During Brake Drum Service*. National Institute for Occupational Safety and Health. Publication No. 89-121, GPO No. 017-033-00443-9. Cincinnati, OH (1989). [[back to text](#)]

²Dement, J.M. *Cincinnati Municipal Garage, Automobile Brake Servicing Operation*. National Institute for Occupational Safety and Health. U.S. Public Health Survey. Report No. 32.11. Cincinnati, OH (1972). [[back to text](#)]

³Johnson, P., R.D. Zumwalde, and D. Roberts. *Industrial Hygiene Assessment of Seven Brake Servicing Facilities--Asbestos*. National Institute for Occupational Safety and Health. Cincinnati, OH (1979). [[back to text](#)]

⁴Roberts, D. *Industrial Hygiene Report -- Asbestos, Reading Brake and Alignment Service, Reading, OH*. National Institute for Occupational Safety and Health. Cincinnati, OH (1980). [[back to text](#)]

⁵Roberts, D. *Industrial Hygiene Report -- Asbestos, Allied Brake Shop, Cincinnati, OH*. National Institute for Occupational Safety and Health. Cincinnati, OH (1980). [[back to text](#)]

⁶Roberts, D. and R. Zumwalde. *Industrial Hygiene Summary Report of Asbestos Exposure Assessment for Brake Mechanics*. National Institute for Occupational Safety and Health. Cincinnati, OH (1982). [[back to text](#)]

⁷Johnson, P.L. *Preliminary Industrial Hygiene Survey -- Auto Brake Clinic, Cincinnati, OH*. National Institute for Occupational Safety and Health. Cincinnati, OH (1976). [[back to text](#)]

⁸Roberts, D. and R. Zumwalde. *Industrial Hygiene Survey Report -- New York Sanitation, Traffic, and Police Brake Servicing Facilities, Queens, NY*. National Institute for Occupational Safety and Health. Cincinnati, OH (1980). [[back to text](#)]

⁹Sheehy, J.W., F.W. Godbey, T.C. Cooper, et al. *In-Depth Survey Report -- Control Technology for Brake Drum Service Operations at Ohio Department of Transportation Maintenance Facility, Lebanon, OH*. National Institute for Occupational Safety and Health. Cincinnati, OH (1987). [[back to text](#)]

¹⁰T.C. Cooper, J.W. Sheehy, et al. *In-Depth Survey Report -- Evaluation of Brake Drum Service Controls at United States Postal Service Vehicle Maintenance Facility, Nashville, TN*. National Institute for Occupational Safety and Health. Cincinnati, OH (1987). [[back to text](#)]

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¹¹Sheehy, J.W., W.F. Todd, T.C. Cooper, et al. *In-Depth Survey Report -- Evaluation of Brake Drum Service Controls at Cincinnati Bell Maintenance Facility, Fairfax, OH*. National Institute for Occupational Safety and Health. Cincinnati, OH (1987). [[back to text](#)]

¹²Cooper, T.C., J.W. Sheehy, D.M. O'Brien, et al. *In-Depth Survey Report -- Evaluation of Brake Drum Service Controls at United States Postal Service Vehicle Maintenance Facility, Louisville, KY*. National Institute for Occupational Safety and Health. Cincinnati, OH (1987). Report No. ECTB 152-11b, NTIS Publication No. PB-88-188610. [[back to text](#)]

¹³Cooper, T.C., J.W. Sheehy, D.M. O'Brien, et al. *In-Depth Survey Report -- Evaluation of Brake Drum Service Controls at Cincinnati Gas and Electric Garages, Cincinnati, Evanston, and Monroe, OH, and Covington, KY*. National Institute for Occupational Safety and Health. Cincinnati, OH (1988). Report No. ECTB 152-22b, NTIS Publication No. PB-88-204680. [[back to text](#)]

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