

Asbestos Containing Auto Parts

This fact sheet covers management options for businesses that handle auto parts that potentially contain asbestos, such as brake linings and clutch facings. Although major auto manufacturers no longer use asbestos parts in new vehicles, aftermarket parts containing asbestos are still being made, imported to the United States and used in repairs. This, in conjunction with the presence of asbestos containing parts on older cars, should cause auto repair shops to take precautions where circumstances could lead to employee exposure.

What is Asbestos and Why is it a Concern?

Asbestos is the name given to a number of naturally occurring fibrous silicate minerals that have been mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength. Asbestos is made up of microscopic bundles of fibers that may become airborne when disturbed. These fibers get into the air and are inhaled into the lungs, where they may cause significant health problems.

Researchers still have not determined a "safe level" of exposure, but know greater and longer exposure increases the risk of contracting an asbestos related disease. Health effects can result from even a single exposure. Some of these health problems include asbestosis (scarring of the lung tissue), mesothelioma (a type of fatal cancer of the lining of the chest), and lung, intestinal and voice box cancers. It may take 15 to 30 years for these health problems to show-up after exposure. Because health effects are not immediate, mechanics and supervisors may develop a false sense of security without realizing that disease may develop much later. Thousands of auto workers are diagnosed each year with asbestos-related diseases. Few mechanics take protective measures when working with brakes - mainly, they say, because they believe asbestos is no longer present.

When is Asbestos Exposure a Problem for Vehicle Service Providers?

Millions of asbestos fibers can be released during brake and clutch servicing. Grinding and beveling friction products can cause even higher exposures. Asbestos released into the air lingers long after a brake job is done and can be breathed in by everyone inside a garage, including customers. Mechanics can expose their families when asbestos is carried on work clothing into their family cars and homes. Eating, drinking and smoking should not be done in an area where brake work is done. Mechanics should wash their hands & face before eating. They should also wash exposed skin and change clothes before going home.

Unless a mechanic is certain before brake work starts that a vehicle's brakes are not lined with asbestos, it should be assumed for the sake of caution that asbestos is present.

If Brakes Are Lined With Asbestos, Which Brake Cleaning Methods Release Asbestos Fibers Into the Air?

The following brake cleaning techniques can result in the release of asbestos into the air and consequently may lead to employee exposure:

- Using a compressed air hose to clean drum brakes;
- Wiping with a dry rag or brushing dust from the assembly;
- Wiping with a wet rag or brush – asbestos will still scatter even if the rag or brush is wet. Furthermore, once dry, the rag or brush can spread the fibers around the work area;

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Which Brake Cleaning Methods Release Asbestos Fibers Into the Air? (continued)

- Using liquid squirt bottles or solvent sprays;
- Using a water hose;
- Using a shop vacuum cleaner – a shop vacuum filter is not fine enough to collect asbestos fibers.

What is the Best Way to Minimize Asbestos Exposure?

Whenever possible, use pre-ground, installation-ready brake linings and clutch facings. In situations where asbestos exposures cannot be eliminated entirely, they should be reduced to the lowest possible level. To accomplish this, consider:

- Using specially designed “wet collection” equipment. This is generally a portable sink (which sits on a reservoir typically containing an aqueous brake cleaning solution) which can be rolled directly under the area to be cleaned. Using low pressure flow, the unit pumps the solution over the brake assembly, while the resulting wash is collected in the sink (often with adjustable height) and flows back into the reservoir after being filtered. The filtered solution is then reused for additional cleaning.
- Using enclosure equipment with a HEPA (High-Efficiency, Particulate Air filter) vacuum cleaner for brake cleaning. Enclosure equipment for clutch repair is under development. For more information on using this type of equipment, and what to look for when evaluating enclosure equipment for brake cleaning, please visit: <http://www.ccar-greenlink.org/Search/1306body.htm>
- Where friction materials containing asbestos must be machined, beveled, or lathe-turned, adequate local exhaust ventilation equipment connected to a HEPA vacuum collector should be used. Such equipment should be designed and set up by a professional ventilation engineer, using specifications such as those proposed the American Conference of Governmental Industrial Hygienists. A comprehensive asbestos control and monitoring program must be developed where machining, beveling, or lathe-turning of asbestos parts is done.
- Respirators with asbestos-compatible cartridges may be appropriate for secondary protection during activities where employees have a greater risk of exposure; however, because uncontained brake and clutch repair could contaminate an entire garage with asbestos fibers, mechanics and other employees would have to wear a respirator all day to be fully protected. Please note that respirator use requires a respiratory protection program, including worker training, medical monitoring, proper respirator selection and maintenance, fit testing, and periodic inspections.

How Should Asbestos Containing Auto Parts be Disposed?

Asbestos disposal is covered under Vermont’s Solid Waste Management Rules. Although asbestos materials are not banned from disposal in Vermont, the solid waste landfills operating in the State are no longer accepting asbestos waste. Because of this, vehicle service facilities that generate friable asbestos containing waste auto parts must have a Vermont Department of Health certified asbestos contractor pick up the asbestos containing waste for proper disposal. The asbestos containing waste auto parts need to be properly packaged prior to shipment by double-wrapping the waste in polyethylene sheeting (with total thickness of 6 mills or greater) and secured with tape. The polyethylene sheeting must fully encapsulate the asbestos containing waste and be secured for transport in appropriate containers. The containers must be transported directly to a disposal facility, and not mixed with other waste types or compacted.

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How Should Asbestos Containing Auto Parts be Disposed? (continued)

Asbestos-containing waste must be clearly labeled as follows:

**CAUTION
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD**

Where Can I Get More Information?

Work practices where asbestos exposure is possible are regulated by the Vermont Occupational Safety and Health Administration (VOSHA) which is a part of the Vermont Department of Labor and Industry. For information regarding VOSHA requirements, you may contact the Vermont Department of Labor & Industry at (802) 828-2765 or VOSHA's non-regulatory assistance program, Project WorkSafe, at 1-888-723-3937.

A list of Vermont Department of Health certified asbestos contractors can be obtained by calling (802) 863-7236 or (800) 439-8550 in Vermont, or by visiting:

http://healthvermont.gov/enviro/asbestos/contractor_list.aspx