



fast facts

advancing safety, health, and workplace rights in the legislative branch

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Asbestos: Do Not Disturb

Asbestos is a group of several naturally occurring fibrous minerals. Wide use of the material in a broad range of products, particularly since the 1940's, led to wider recognition of their health hazards in the late 1970's. At that time, some, but not all, uses of asbestos were banned in the United States; however, employees continue to be exposed to asbestos fibers released from materials installed in buildings before those bans and through use of products still being made with asbestos.

Locating Asbestos

In the 1980's, the U.S. Environmental Protection Agency (EPA) established its first protocols for conducting inspections to determine where asbestos-containing materials (ACM's) are found in schools and other buildings. Though the EPA considers materials containing less than 1% asbestos not to be an ACM, standards established by the Occupational Safety and Health Administration (OSHA) apply to materials containing any amount of asbestos.

Evaluating the many materials that may contain asbestos requires removal and laboratory testing of pieces of that material. Various public safety and repair cost considerations may limit the scope of initial asbestos inspections. Therefore, OSHA considers any untested thermal system insulation and surfacing material in buildings constructed no later than 1980 to be a "presumed asbestos containing material" (PACM) until it is proven not to contain asbestos.

Common ACM's include insulation on pipes and other hot surfaces, various fire-proofing materials, and troweled- or sprayed-on acoustical materials such as "popcorn" ceilings. Asbestos is found in most 9x9 inch vinyl floor tiles, and in some

floor tiles of other sizes. Asbestos is in the felt backing of some linoleum and roofing materials, in mastics used to adhere floor tiles and linoleum to the floor, and in mastics used on duct and pipe insulation. Some acoustic tiles used on ceilings and walls contain asbestos, as do some mastics used with them. Asbestos can be found in wallboard, joint compound, spackle used in wall systems, and in some floor leveling materials. It was frequently used in wall and ceiling plaster, and in cement board panels called transite. Certain gaskets, clutch and brake pads in vehicles and other machinery frequently contain asbestos, too.

Hazardous To Your Health

ACM's that are "friable" – or able to be crushed or reduced to powder by hand pressure – are most likely to release asbestos fibers. Therefore, employees who conduct activities that make ACM's friable, or who work around materials that are already friable, are at greatest risk of exposure to the fibers. These employees typically include tradespeople who service plumbing, electrical, ventilation and other mechanical systems, custodians who disturb or contact asbestos, renovators and remodelers, and those who repair ACM or abate it.

Materials which can be crushed or reduced to powder only by sanding, sawing, abrasion, or other mechanical action are considered to be non-friable. The health risks posed by these materials are considerably less than those posed by friable materials. Examples of non-friable materials include intact vinyl floor tiles and transite panels.

Breathing asbestos can result in several illnesses, including asbestosis, a scarring of the lungs that typically occurs as a result of inhaling asbestos over a long period of time. It decreases the ability of the body



Figure 1: Damaged 9-inch vinyl tile exposing mastic

to get needed oxygen and often results in development of fatal cardiopulmonary disease. It can also cause lung cancer, particularly in individuals who smoke. Mesothelioma, a rare, untreatable cancer of the membrane lining the lungs, chest, heart, and abdomen is caused almost exclusively by asbestos exposure. Exposure to asbestos has also been shown to cause cancer of the stomach and colon. Typically, these health effects do not develop for more than 20 years after first exposure.

Protective OSHA Regulations

OSHA's Asbestos Standard for general industry covers maintenance and office workers, among others. A separate standard applies to those who conduct construction-related activities, including repair, demolition, renovation, and asbestos abatement. Because the general industry standard applies to most legislative branch employees, the information below summarizes some of its requirements.

The standard establishes two permissible exposure limits (PEL's) for asbestos. The first is a time-weighted average (TWA) of 0.1 fiber per cubic centimeter of air (f/cc), averaged over an 8-hour work shift. OSHA has also established an excursion limit (EL) of 1.0 f/cc during a single, 30-minute period.

Employers are required to do the following:

- Determine the presence, location, and quantity of ACM and/or PACM.
 - Inform employees—and the employers of housekeeping employees—of asbestos hazards in their building.
 - Post warning signs at the entrance to mechanical rooms/areas containing ACM and/or PACM, identifying the material present and its location, and appropriate work practices to ensure it is not disturbed. Warning labels must be affixed to these asbestos products and containers of asbestos products.
 - Assess all asbestos operations for their potential to generate fibers.
- Conduct initial monitoring for all employees who either are, or may be expected to be, exposed to airborne concentrations of asbestos above the TWA and/or EL.
 - Establish a regulated area wherever airborne asbestos concentrations exceed the TWA and/or EL.

If you suspect you are exposed to friable asbestos materials in your workplace, do not disturb them or create dust. Notify your safety and health office or immediate supervisor of your concerns. Its potential asbestos content can be determined, and any necessary actions can then be taken.



Figure 2: A damaged pipe insulation jacket exposes friable asbestos.

fast stats

United States Statistics

- 30 million pounds of asbestos are still used in the U.S. each year. (Source: EWG Action Fund)
- Asbestos is the #1 cause of occupational cancer, causing 54% of those deaths. (Source: Asbestos Disease Awareness Organization)
- Since 1979, more than 43,000 Americans have died of asbestos-related diseases. (Source: EWG Action Fund)

OSHA Standards

- 29 CFR 1910.1001, Asbestos (in general industry)
- 29 CFR 1926.1101, Asbestos (in construction)

For More Information

- OSHA's asbestos webpage: <http://www.osha.gov/SLTC/asbestos/index.html>
- EPA's asbestos webpage: <http://www.epa.gov/asbestos/>
- Agency for Toxic Substances and Disease Registry (ATSDR) FAQ on Asbestos: <http://www.atsdr.cdc.gov/tfacts61.html>

Regulated Area Requirements

- Implement a written compliance plan that explains engineering controls and work practices to be followed.
- Post warning signs at all approaches to regulated areas.
- Ensure appropriate respirators and personal protective equipment are worn.
- Ensure wet methods and local exhaust ventilation with appropriate dust collection are used to limit exposure.
- Provide a proper decontamination area that includes changing and showering facilities.
- Provide initial and annual refresher training to employees exposed at or above the TWA or EL.
- Provide medical surveillance for all employees exposed to airborne concentrations at or above the TWA and/or EL.
- Keep accurate records of exposure monitoring and medical surveillance for each worker's duration of employment plus 30 years.



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If you spot a safety hazard in your legislative branch workplace, contact the Office of Compliance to report it:

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