

EHS Guidance Sheet

Asbestos Facts for Building Occupants

Asbestos is the name given to a group of naturally occurring minerals that are resistant to heat and corrosion. Asbestos fibers are created by processing asbestos-containing rock, found in deposits throughout the world. The fibers are then mixed with a binder or into a matrix and manufactured into various building materials and other articles.

Historical Asbestos Use

Historically, asbestos was used in thousands of products, many of which were building materials such as thermal insulation, decorative finishes (e.g., ceiling texture), wallboard, vinyl flooring, mastics, lab countertops, ceiling tiles, roofing materials, etc. Asbestos was used in other products as well, such as fire doors, thermal gloves, fire clothing, heating mantles, and ovens.

Height of production and use occurred from the 1940s through the 1970s. Use of asbestos in products greatly decreased in the 1970s as various bans took effect in the United States. However, only certain uses of asbestos were banned. **While commercial mining of asbestos ceased in the United States in 2002, asbestos and asbestos-containing materials are still imported into the United States.** The most prevalent uses today include automobile clutches and brake pads, gaskets, cement pipe and corrugated or flat sheeting, roofing materials, and vinyl floor tile.



The bans did not require existing asbestos-containing materials (ACM) to be removed. Therefore, it is common for older buildings to still contain asbestos. Some building products containing asbestos are still used today and can be found in newer buildings (primarily vinyl flooring and roofing products).

Exposure to Asbestos

The primary route of exposure is inhalation of asbestos fibers. The mere presence of an ACM is not of concern because the fibers are held tightly by the matrix/binding. The fibers break loose and become airborne only when an ACM is disturbed or damaged. Some ACMs are easier to damage than others.

Lung diseases are the primary health hazards of exposure to asbestos, including asbestosis, lung cancer, and mesothelioma. Asbestosis is a disease characterized by lung scarring which reduces

lung elasticity and increases breathing difficulty. Mesothelioma is a form of cancer that occurs in the chest cavity lining (pleura).

Everyone is exposed to asbestos at some time during their life. Low levels of asbestos are present in the air, water, and soil. However, most people do not become ill from their exposure. People who become ill from asbestos are usually those who are exposed to it on a regular basis, most often in a job where they work directly with the material or through substantial environmental contact.

How are building occupants protected?

ACM in UI buildings are monitored to ensure that they remain in good condition, and are removed when they begin to show signs of deterioration or when they could be disturbed by a renovation, repair, maintenance, or demolition project. Removal of ACM is done by licensed individuals and in accordance with regulatory requirements that specify certain work practices to prevent asbestos fibers from leaving the designated work area. These designated work areas are isolated from adjacent spaces and are clearly marked. Warning signs are used to alert asbestos workers of the hazards within the work zone and to warn non-asbestos workers to refrain from entering a work zone.

Often, portable exhaust units are used to mechanically separate the work zone from adjacent areas. These units create a negative air pressure between the work zone and adjacent areas by drawing air from outside of the work zone. After the air has moved into the regulated area it passes through a HEPA filter to remove asbestos fibers before the air is exhausted.

During floor tile removal projects, odors may be noticed. These odors are from the solvents used to remove the mastic and are typically of nuisance-type with little potential for adverse health effects.

What can building occupants do to protect themselves?

The most important thing that a building occupant can do to prevent exposures is to refrain from any activity that could disturb ACM. Do not cut, drill, screw, sand, chisel, or hammer on countertops, fire doors, floors, ceilings, plaster walls, roofing materials, or other possible ACM. Do not remove, replace, or clean ceiling tiles or access plenums above dropped ceilings where ACM may be present. Do not vacuum, sweep, or otherwise attempt to clean-up building debris that may contain asbestos. Do not enter any designated work area that is placarded with a sign indicating that an asbestos remediation project is in progress.

Report potential damage to building materials that may contain asbestos to EHS. Contact EHS to evaluate appliances and equipment (e.g., ovens, heating mantles) or other items (thermal gloves, fire curtains, etc.) that may contain asbestos before dismantling or discarding.