

## **The Hazards of Asbestos**

#### **OSHA's Asbestos Standard and the Asbestos Hazard Emergency Response Act**

Asbestos is the common name for a group of minerals found in nature. Asbestos causes serious illness and death. No one knows how many asbestos fibers it takes to cause disease. Therefore, there is no level of exposure to asbestos that is known to be safe.

As many as 10,000 people in this country die of asbestos diseases each year. Most were exposed to asbestos in their jobs in mines, textile mills, shipbuilding and the construction trades. Today, the main risk is from exposure to asbestos that is already in buildings. Custodial and maintenance workers face the risks of exposure every day while doing their usual tasks. Unless proper controls are in place, other building occupants can also be exposed.

#### When is asbestos dangerous?

The mere presence of asbestos in a building is not hazardous. The danger is that asbestos materials may become damaged over time. Damaged asbestos may release asbestos fibers and become a health hazard. However, when pipe lagging, ceiling tiles and other building materials are damaged or deteriorated, asbestos can become friable (i.e., easily pulverized or crushed into a dust).

Once the asbestos has become friable, the fibers are generally microscopic and become mixed with ordinary dust that can be inhaled.

- Inhaling asbestos fibers is the greatest health hazard of asbestos exposure, but there is no immediate or acute health effect upon first or recent exposure.
- When asbestos fibers are mixed with dust or debris, the dust or debris may trigger an asthma episode or cause respiratory symptoms—but these symptoms are not caused by asbestos.
- Asbestos fibers become embedded in the tissue that lines the lungs and abdomen. Once in the tissue, the fibers cannot be dissolved or eliminated in any way.

## Where can asbestos be found in the

### workplace?

Asbestos has been used in thousands of different products. It has been added to construction materials for fireproofing, insulation, and to make products stronger. There are hundreds of thousands of buildings in the United States that have asbestos-containing materials (ACM).

Boiler and pipe	Drop ceiling tiles	Roofing felts
insulation		
Duct insulation	Fireproofing on	Fire doors
	beams	
Ceiling	Electrical	Siding and
insulation	insulation	shingles
Vinyl-asbestos	Pipe gaskets	Lab hoods
floor coverings		
Adhesives,	Flue pipes	Caulking
mastics		



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#### Diseases caused by asbestos

There is generally a long period between asbestos exposure and the appearance of disease. It takes at least five years—often more than 15-35 years—for these diseases to develop. It's important to remember that exposure to asbestos today will cause no immediate ill effects or symptoms.

- Asbestosis, also known as "white lung disease," is the scarring of the lungs. Asbestosis is not a cancer, but it can cause death. The scarring can continue even after exposure to asbestos has stopped. The asbestos fibers are like tiny daggers that get lodged in the air sacs. The body forms scar tissue around the fibers, making it harder to get air into the lungs and for the heart to pump oxygen throughout the body.
- Lung cancer is one of the main hazards from breathing asbestos. When asbestos is swallowed, it can cause cancer of the mouth, esophagus, stomach and other digestive organs. The growth of abnormal cells, or tumors, can either stay in one place or spread to other parts of the body. Cancer also has a long latency period, which is the time from when exposure starts until the cancer develops. It can take decades for cancer to develop. Smoking and asbestos are a deadly mix. The risk of lung cancer is estimated to be 50 to 90 times higher than for those who do not smoke and are not exposed to asbestos.
- Mesothelioma is a rare but deadly cancer. One type of mesothelioma affects the lining of the lung, and another kind attacks the lining of the abdomen. Mesothelioma has the longest latency period of all asbestos diseases, usually 30 to 40 years.

#### Protecting workers from asbestos

With respect to the protection of workers from the potential harm from exposure to asbestos, the Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA), part of the Department of Labor, each have regulatory responsibility. In addition, state and local agencies may have more stringent standards than those required by the federal government.

OSHA has two asbestos standards:

- General Industry Standard covers routine housekeeping activities in buildings and automotive brake and clutch repair.
- <u>Construction Standard</u> applies to demolition and renovation operations and other activities where asbestos is removed or encapsulated. It also covers

building maintenance and repair activities and emergency cleanup of asbestos spills.

These standards cover all private sector workers and state and local government workers in the <u>28 states</u> and territories with an OSHA-approved state occupational safety and health plan.

The EPA is responsible for protecting state and local employees who may be exposed to asbestos from their jobs in states without an OSHA-approved state occupational safety and health plan who may be exposed to asbestos from their jobs.

EPA's <u>Asbestos Worker Protection Rule</u> extends the OSHA standards to state and local employees who perform asbestos work and who are not covered by the OSHA asbestos standards, under an OSHA-approved state occupational safety and health plan.



The EPA also has jurisdiction over the <u>Asbestos Hazard</u> <u>Emergency Response Act</u>, and its regulations require public school districts and nonprofit schools, including charter schools and schools affiliated with religious institutions to:

- Perform an initial inspection to determine whether asbestos-containing materials are present and then reinspect asbestos-containing materials in each school not certified asbestos-free every three years.
- Develop, maintain and update an asbestos management plan and keep a copy, available for public review, at the school.
- Provide yearly notification to parents, teachers and the union on the availability of the school's asbestos management plan and any asbestos-related actions taken or planned in the school.
- Designate a contact person to ensure the responsibilities of the public school district or the nonprofit school are properly implemented and ensure that the individual is appropriately trained.

- Perform a six-month surveillance of known or suspected asbestos-containing building materials, and place the surveillance form in the management plan.
- Ensure that trained and licensed professionals perform inspections and take response actions.
- Provide custodial staff with asbestos-awareness training.

These requirements are founded on the principle of managing the asbestos-containing material *that is already in buildings*. Removal of these materials is not usually necessary unless the material is severely damaged or will be disturbed by a building demolition or renovation project.

Personnel working on asbestos activities in schools must be trained and accredited in accordance with the <u>Asbestos Model Accreditation Plan</u>.

## Custodial and maintenance training requirements

Even if you are not required to work directly with the asbestos in the building, the EPA and OSHA both require that you receive at least two hours of annual asbestosawareness training. This training must include information on:

- The nature of asbestos and its many forms;
- The health effects associated with asbestos exposure;
- The location of the ACM in school buildings where the workers being trained may work;
- How to recognize damage or deterioration of asbestos-containing building material; and
- The name and telephone number of the designated school district person to handle asbestos- related matters

School maintenance and custodial workers who perform any activities that will disturb asbestos in a building must receive an additional 14 hours of training.

For example, if your work involves drilling holes in plaster containing asbestos or fire doors with asbestos cores, cutting through insulation, replacing broken vinyl/asbestos floor tiles or any other work activity that brings you in contact with asbestos, your school district must provide the 14-hour training.

# Types of work you can perform after training

After the 14-hour training, your employer can only assign you to perform asbestos maintenance and repair jobs that are "small scale" and "short duration" in nature, and then only if they provide you with the proper equipment.

Small-scale, short-duration asbestos work can only be performed if it is necessary to carry out another maintenance activity. Some examples include removal of asbestos-containing insulation around a section of pipe, replacement of a small section of dry wall, and installation of electrical conduit through or near asbestos-containing building material.



Your employer may not have you do work that is intended solely as asbestos removal. The only exception is cleaning up "minor emergencies," which are accidents involving no more than three feet (linear or square) of asbestos. Certified asbestos-abatement workers must be called in for emergencies involving more asbestos or for any removal jobs.

There is no cure for the diseases caused by asbestos. Prevention of asbestos exposure is the only guarantee against asbestos-related diseases.

For more information, contact the Health Issues Health and Safety team at <a href="mailto:4healthandsafety@aft.org">4healthandsafety@aft.org</a> for assistance. [May 2022]