

AFSCME

Health & Safety Fact Sheet

ASBESTOS

SUMMARY

- Hazards:** Asbestos is a deadly mineral fiber that causes lung and other types of cancer, mesothelioma, scarring of the lungs (asbestosis) and other diseases.
- Who is at Risk:** Building construction, maintenance and custodial workers, mechanics who repair brake and clutch parts or any others who breathe or swallow asbestos fibers.
- Prevention:** Identifying asbestos-containing materials (ACM) in the workplace and having trained workers wearing protective gear use required proper equipment and procedures to prevent the uncontrolled disturbance of asbestos.
- Laws:** **OSHA General Industry Standard (29 CFR 1910.1001)** covers routine housekeeping activities in buildings and automotive brake and clutch repair. **OSHA Construction Standard (29 CFR 1926.1101)** applies to building demolition and renovation operations and other activities where asbestos is removed or encapsulated. It also covers building maintenance and emergency cleanup of asbestos spills. **EPA Asbestos Worker Protection Rule (40 CFR Part 763 Subpart G)** extends the OSHA asbestos protections to state and local government workers not covered by state OSHA laws. **EPA Asbestos-in-Schools Rule (40 CFR Part 763 Subpart E)** requires schools to inspect buildings for asbestos and to prevent worker and occupant exposure.

WHAT IS ASBESTOS?

Asbestos is the common name for a group of minerals found in nature. All types of asbestos cause disease and death. There is no such thing as “safe” asbestos. Most of the asbestos used in the United States is chrysotile (white). The other types of asbestos are crocidolite (blue), amosite (brown) and the fibrous varieties of anthophyllite, tremolite and actinolite.

WHAT ARE THE HEALTH HAZARDS OF ASBESTOS?

Asbestos causes serious illness and death. No one knows how many fibers it takes to cause disease. The risk of disease or death increases with the exposure. However, **there is no level of exposure 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. Custodians and maintenance workers face the risks of exposure everyday while doing their usual tasks. Unless proper controls are in place, other building occupants can also be exposed.

Asbestos-Related Diseases

- ***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.
- ***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 belly (abdomen). Mesothelioma has the longest latency period of all asbestos diseases, usually thirty to forty years.
- ***Pleural plaques*** are the scarring of the thin lining that surrounds the lungs. This condition can result in reduced lung function. Those with pleural plaques have an increased risk of getting cancer or asbestosis.
- ***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.

WHERE CAN ASBESTOS BE FOUND IN THE

WORKPLACE? Asbestos Building Materials

Asbestos has been used in thousands of different products. Asbestos has been added to construction materials for fireproofing, insulation, to resist acids, and to make products stronger. Asbestos-containing materials (ACM) in buildings are usually divided into three types:

- **Surfacing Material:** sprayed or troweled on to ceilings, walls, and other surfaces.
- **Thermal System Insulation (TSI):** materials used for insulation on pipes, boilers, tanks, and ducts.
- **Miscellaneous ACM:** materials used in floor and ceiling tiles, interior wallboard, roofing felts, shingles, and siding.

There are hundreds of thousands buildings in the United States that have ACM. The use of thermal and surfacing materials was phased out in the 1970's. Spraying ACM as surfacing material was banned in the United States in 1973. However, asbestos continued to be used into the 1980's in other building products such as floor tiles.

Asbestos is commonly found in these building products:

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| > boiler and pipe insulation | > duct insulation | > ceiling insulation |
| > drop ceiling tiles | > fireproofing on beams | > electrical insulation |
| > roofing felts and asphalt | > siding and shingles | > fire blankets, doors,
and curtains |
| > vinyl-asbestos floor coverings
and adhesives, mastics | > pipe gaskets | > chemical tanks |
| > Transite sheets, pipes,
countertops, and lab hoods | > flue pipes | > valves |
| | > spackling, caulking putties | > plaster/stucco |
| | > acoustical (sound) plaster
and tiles | |

Other Major Uses of Asbestos

Asbestos has been used in vehicle brakes and clutches. There are also hundreds of thousands of miles of asbestos-cement pipes throughout this country's water system.

WHO IS AT RISK OF ASBESTOS-RELATED DISEASES?

Workers in certain occupations face a higher risk of exposure if there is asbestos in the workplace. These include building construction, maintenance and custodial workers, and mechanics that repair brake and clutch parts.

WHEN IS ASBESTOS HAZARDOUS?

Having asbestos in a building does not always mean there is an immediate danger. If ACM stays in good condition and is not disturbed, asbestos exposure should not be a problem. However, there is always a potential for exposure as long as there is asbestos in the building. Asbestos is a hazard when you can breathe or swallow it. This means that asbestos is most dangerous when the fibers are too small to be seen. When ACM is damaged the asbestos bundles break apart into fibers that can only be seen through a microscope.

ACM is most dangerous when it is "***friable***" because the asbestos can be crumbled or turned to powder by squeezing it with your hand. Friable ACM is likely to shed fibers if disturbed. Surfacing and thermal insulation materials are often friable. "***Nonfriable***" ACM refers to materials that do not release fibers easily. Miscellaneous materials like floor tiles are usually considered nonfriable. However, nonfriable does not mean they cannot release fibers. Asbestos fibers will be released if nonfriable materials are cut, drilled, sanded, sawed, or broken.

WHAT ACTIONS MUST BE TAKEN TO PREVENT EXPOSURE IN THE WORKPLACE?

- **Identification:** Asbestos-containing materials in the workplace need to be identified. All primary and secondary schools must be inspected for ACM. Federal laws also require that all fireproofing, pipe insulation and boiler wrap, flooring, and other materials in buildings

that were constructed before 1980 must be considered *presumed-asbestos containing materials (PACM)* and handled accordingly, unless the materials are tested and found to be asbestos-free. **Hazard Communication:** Employers must make workers, building occupants and others aware of the presence of asbestos through training, signs, and labels.

- **Asbestos Control Plan:** All work that disturbs asbestos or PACM must be done in a regulated area by workers who are trained, wearing protective gear, using the proper equipment, and following strict procedures. All removal, repair, and other work must be done according to federal asbestos regulations. Until all asbestos is removed, buildings with ACM or PACM must have a program in place to prevent the uncontrolled disturbance by maintenance and custodial staff, or outside service workers such as electricians, telephone or computer wire installers.

WHAT FEDERAL ASBESTOS LAWS EXIST TO PROTECT WORKERS?

The Occupational Safety and Health Administration (OSHA) has two asbestos standards:

- **General Industry Standard (29 CFR 1910.1001)** covers routine housekeeping activities in buildings and automotive brake and clutch repair.
See:
http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9995
- **Construction Standard (29 CFR 1926.1101)** 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. See:
http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10862

These standards cover private sector workers and state and local government workers in the 23 states with federally approved state OSHA laws. A few other states have OSHA programs for public employees that are not federally approved which also adopt and enforce OSHA standards.

The United States Environmental Protection Agency (EPA) **Asbestos Worker Protection Rule (40 CFR Part 763 Subpart G)** extends the OSHA asbestos protections to state and local government workers not covered by OSHA laws. The law became effective December 15, 2000. See: http://www.access.gpo.gov/nara/cfr/waisidx_07/40cfr763_07.html
(see 763.120 and following sections)

The EPA **Asbestos-in-Schools Rule (40 CFR Part 763 Subpart E)** requires schools to inspect buildings for asbestos and prevent exposure to workers and others.
See: http://www.access.gpo.gov/nara/cfr/waisidx_07/40cfr763_07.html
(see 763.80 and following sections)

September 2011

For more information about protecting workers from workplace hazards, please contact the AFSCME Research & Collective Bargaining Department, Health and Safety Program at (202) 429-1215. You can also contact our office located at 1625 L Street, NW Washington, DC 20036.