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# Asbestos

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## Supervising Safety Newsletter

With the renovation work happening at the CMOB, a lot of questions are coming up about asbestos. This newsletter will provide valuable information as well as ease concerns about potential exposure to it.

### What is Asbestos

Asbestos is the name given to a group of naturally occurring minerals that are resistant to heat and corrosion. Asbestos has been used in products, such as insulation for pipes (steam lines for example), floor tiles, building materials, and in vehicle brakes and clutches. Asbestos includes the mineral fibers chrysotile, amosite, crocidolite, tremolite, anthophyllite, actinolite, and any of these materials that have been chemically treated or altered. Heavy exposures tend to occur in the construction industry and in ship repair, particularly during the removal of asbestos materials due to renovation, repairs, or demolition. Workers are also likely to be exposed during the manufacture of asbestos products (such as textiles, friction products, insulation, and other building materials) and during automotive brake and clutch repair work.

Individual asbestos fibers cannot be seen by the naked eye, which puts workers at an increased risk. The Occupational Safety and Health Administration (OSHA) has regulations to protect workers from the hazards of asbestos. Exposure from asbestos only comes when the fibers are released into the air. If the material is not disturbed, such as being crushed or pulverized there is no exposure.

### What is the Hazard?

Asbestos fibers are released into the air during activities that disturb asbestos-containing materials. The asbestos fibers can then be inhaled without knowing and trapped in the lungs. If swallowed, they can become embedded into the digestive tract as well.

Asbestos is a known human carcinogen and can cause chronic lung disease as well as lung and other cancers. Symptoms and/or cancer may take many years to develop following exposure.

### Where is the Hazard?

The hazard may occur during manufacturing of asbestos-containing products, performing brake or clutch repairs, renovating or demolishing buildings or ships or cleanup from those activities, contact with deteriorating asbestos containing materials and during cleanup after natural disasters. Some materials are presumed to contain asbestos if installed before 1981. Examples of these materials, as well as other presumed asbestos-containing materials are:

- Thermal system insulation
- Roofing and siding shingles
- Vinyl floor tiles
- Plaster, cement, putties, and caulk
- Ceiling tiles and spray-on coatings

- Industrial pipe wrapping
- Heat-resistant textiles
- Automobile brake linings and clutch pads

### OSHA Standards

OSHA has three standards to protect workers from the hazards of asbestos depending on the type of workplace. For complete information on all of the requirements, see the standard specific to your type of workplace.

General Industry: 29 CFR 1910.1001 covers work in general industry, such as exposure during brake and clutch repair, maintenance work, and manufacture of asbestos-containing products.

Shipyards: 29 CFR 1915.1001 covers construction, alteration, repair, maintenance, renovation and demolition of structures containing asbestos during work in shipyards.

Construction: 29 CFR 1926.1101 covers construction, alteration, repair, maintenance, or renovation and demolition of structures containing asbestos.

### What Protections Exist in the Standards

- Permissible Exposure Limit (PEL) for asbestos is 0.1 fiber per cubic centimeter of air as an eight-hour time-weighted average (TWA), with an excursion limit (EL) of 1.0 asbestos fibers per cubic centimeter over a 30-minute period.

The employer must ensure that no one is exposed above these limits. Assessment of workplaces covered by the standards must be completed to determine if asbestos is present and if the work will generate airborne fibers by a specific method under each standard.

The rules require that any suspect material of 3 square or linear feet or more that is involved in a renovation or demolition must be sampled or assumed to be asbestos. The only things that are not suspect are glass, metal, and wood.

Remember that asbestos containing materials are not harmful to you if they are intact and not disturbed. Anytime demolition or renovation is going to take place, asbestos sampling must be done to rule out any possible asbestos containing material before it begins.