Health and Safety
Santé et sécurité

HAZARD
Asbestos

What is asbestos?

Asbestos is the general name for a group of naturally occurring fibrous silicon-based minerals. There are six main forms of asbestos, but the three most common are chrysotile, amosite and crocidolite.

Asbestos can be used to make or enhance products that are long-lasting and fire-resistant. Prior to 1990, it was mainly used in Canada in commercial buildings and homes for its heat resistance, tensile strength and insulating qualities.

However, when we breathe air that is contaminated with asbestos dust, we inhale small sharp, barb-like asbestos fibres that find their way deep into our lung tissues and other internal organs, where they remain—for life. Breathing even small, invisible quantities can cause fatal diseases—including lung cancer, mesothelioma, asbestosis and other cancers—that may develop as much as 20 to 30 years after exposure. Canada enacted a ban on the production and export of asbestos on December 30th, 2018.

Uses

The construction industry and commercial sectors have used asbestos in many products, including:

- Cement and plaster
- Building insulation
- House siding
- Car and truck brake pads
- Floor and ceiling tiles
- Insulation for industrial furnace and heating systems

Exposure

The use of asbestos was widespread throughout Canadian society. Today, anyone who works in a building or area where asbestos exists is at risk of exposure if adequate control measures are not in place. Time can cause asbestos to become brittle, flake and deteriorate. For asbestos the term often used is “friable”). It’s this characteristic “friability” that allows the hazardous fibres to become airborne. There are other ways for asbestos contamination to spread. Products containing asbestos that have been damaged by water, or by abrasive procedures, or through improper maintenance or removal processes, can also release fibres.

PSAC members can face contamination through otherwise common tasks that release fibres into the air. These can include:

- Disturbing or removing insulation that contains asbestos, including vermiculite insulation and insulation around hot water pipes and tanks.
- Removing or disturbing siding or roofing shingles and felt that contain asbestos.
- Sanding, sawing, drilling, breaking apart, scraping or smoothing rough edges of materials that contain asbestos such as vinyl asbestos floor tiles, acoustical plaster and older surface treatments, including caulking and drywall.

Many PSAC members may face exposure in institutional buildings such as federal government offices, military bases, correctional facilities and casinos. Others, like IT staff, electricians, plumbers and carpenters, may become exposed by working in environments that have asbestos-containing materials.

Even though there is no evidence of any safe level of exposure to asbestos, most jurisdictions define occupational exposure limits for asbestos to be as low as reasonably possible, without exceeding 0.1 fibres per cubic centimetre (or 100,000 fibres in each cubic metre of air). Although this may sound like a small amount, but over an eight-hour day, a worker can easily breathe a significant number of asbestos fibres.

Employers may make the claim that because a workplace follows government regulations, workers have nothing to worry about. This is not accurate. Government standards for asbestos exposure are inadequate and will not protect workers from getting cancer. The standards were designed to protect asbestos factory workers from getting asbestosis, not to protect PSAC members from developing cancer.

Eliminating exposures as much as possible

Wherever fibrous building materials have been used, employers should have an asbestos management program. It must contain the following elements:

- Testing to determine the existence of all materials containing asbestos
- An inventory that is periodically reviewed for accuracy (Federal asbestos building registry – available here)
- A system that identifies where asbestos has been located
- A procedure to ensure any work is conducted in accordance with established asbestos control measures
- Worker training on all aspects of the management program

In workplaces with no management programs, or where testing has not been performed, workers should automatically suspect the presence of asbestos. They should also avoid disturbing asbestos materials.

If asbestos is found to be present, the employer must bring in specialists (note: qualified person) to determine how to proceed. Accumulations of dust should be checked for asbestos. An air-sampling program should be conducted to determine if airborne fibres are present. The only permanent solution to eliminate the hazard is to remove asbestos. Sometimes the asbestos is covered up with other building materials. In other cases, it is encapsulated or sealed with a coating. Encapsulation alone is not generally considered an adequate solution. The best method for asbestos control will depend on the condition of the asbestos, its location and what will likely disturb it in the future.

Working with asbestos-containing materials

Any action to address, disturb, or remove or asbestos containing materials must be conducted by properly trained and certified workers adhering to the strict protocols to ensure that no one is exposed. No PSAC member should be assigned to or attempt to remove asbestos containing materials, no matter how minor the task may seem, unless they are certified and trained to do this exact type of work.