

# Asbestos - is it a hazard?

**A**SBESTOS!! The word itself may make us think of debilitating diseases such as asbestosis, lung cancer and mesothelioma. Does it seem right that a naturally occurring mineral can do such harm? Well, it does ... and it doesn't.

- It does cause these diseases if workers are overexposed to airborne fibres released from asbestos-containing materials over long periods of time.
- It doesn't cause these diseases if the asbestos-containing materials are properly managed in-place or even removed altogether.

In the past, asbestos was added to a variety of products to strengthen them, provide heat insulation and improve fire resistance. In most products, asbestos is combined with a binding material so that it is not readily released into the air. However, if asbestos should become airborne and is inhaled, it can remain in the lungs for a long period of time, producing the risk for severe health problems that do not appear until many years later.

Asbestos can cause asbestosis, a scarring of the lungs that leads to breathing problems and heart failure. Workers who manufactured or used asbestos products and have high exposures to asbestos were often affected with asbestosis. Inhalation of asbestos can also cause lung cancer and mesothelioma, a rare cancer of the lining of the chest and abdomen lining. It may be linked to cancer of the stomach, intestines, and rectum, as well.

More than 3,000 products in use today still contain asbestos although these materials were generally not used in buildings after 1983. Most of these materials were used in heat and acoustic insulation, fireproofing, roofing materials and flooring materials. Some of the more common products that may contain asbestos include:

- |   |                            |
|---|----------------------------|
| • Structural Sprayed-on Fireproofing                    | • Paper products           |
| • Thermal system insulation (e.g. on pipes and boilers) | • Roofing felts            |
| • Duct insulation                                       | • Adhesives                |
| • Acoustical and decorative spray                       | • Roofing asphalt          |
| • Drywall Joint Compound                                | • Floor tiles and linoleum |
| • Ceiling Tiles   | • Gaskets                  |
| • Cement board  | • Cement pipes             |
| • Transitite  | • Caulking putties         |
|   | • Plaster                  |
|   | • Duct Seal                |

The requirements for asbestos management in British Columbia workplaces falls under the jurisdiction of the Workers' Compensation Board (WCB) - Occupational Health & Safety Regulation.

With respect to asbestos, the Regulation applies to building owners, their agents as well as employers. The requirements of the Regulation are summarized below:

- an inventory of ALL asbestos-containing materials (ACMs) must be kept current
- all ACMs must be identified by labeling, signs or other effective means
- a risk assessment must be conducted by a qualified person on all ACMs in the inventory
- friable ACMs must be controlled
- proper procedures must be in place for work with or in the vicinity of ACMs
- worker exposures to airborne ACMs must be assessed
- all workers at risk of exposure to asbestos must receive adequate training
- prior to any demolition or renovation of the building, asbestos must be properly contained or abated.

How can these WCB requirements affect the architectural and design community? Imagine a project where you are the agent for the owner and a building constructed prior to 1983 is to be renovated or there are tenant improvements scheduled. Your client does not have an inventory of ACMs nor any labeling. In this case, it would be in the best interests of your client if the WCB requirements for asbestos were satisfied PRIOR to the planned renovation. Having to deal with an asbestos issue after being discovered during a renovation only adds significant project delays, potential WCB penalties and extras costs incurred during construction.

Now imagine someone discovering a suspect material that has been damaged during renovation and one of the site workers becomes concerned that the material contained asbestos. Testing confirms that it does contain asbestos ... now you have a worker (or workers) exposed to asbestos and the WCB knocking on the door.

It is important to understand that just because a building is being renovated does not mean that all the asbestos must be removed. Through implementation of an effective asbestos management program that meets the requirements of the WCB Occupational Health & Safety Regulation, a group of trades can work in the vicinity of asbestos-containing materials without concern.

If the asbestos issues are taken care of properly from the beginning, then the WCB is happy, the workers are happy and the architect or designers looks good in the client's eyes. ♦

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