About Asbestos

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What is Asbestos?

Asbestos is the common term used to describe a naturally-occurring fibrous mineral that was used extensively by Australian industry because of its durability, fire resistance and excellent thermal insulating properties. Asbestos was used in a wide range of products manufactured between the 1940s and the 1980s. Asbestos fibres were an additive often mixed into another base compound (such as cement) to enhance physical properties of the material. In Australia the manufacture and importation of most products containing asbestos were phased out in the mid 1980s. However, some asbestos products continued to be used in plant rooms and other equipment until the 2003 national ban on all asbestos. The national ban prohibits the manufacture and importation of all asbestos based products.

What is Asbestos Containing Material (ACM)?

The term 'asbestos containing material' refers to any material, object, product or debris that contains asbestos. ACM can take several physical 'forms', depending on its method of manufacture and application. The most common form is asbestos-cement sheet, which was manufactured in various profiles including flat, corrugated and profiled sheets. Other forms of ACM include adhesives, vinyl sheeting and tiles, loose fill insulation, membranes, mastics, woven textiles, sprayed coatings and moulded products.

Within the construction sector, ACM typically covers building materials containing asbestos such as roof sheeting, guttering and downpipes, exterior wall cladding including fascias and eaves, internal wall sheeting, ceiling panels, fire doors and fireproof coatings, and floor coverings such as sheet vinyl flooring and vinyl tiles. ACM also refers to insulating materials incorporated into building services plant and equipment such as air conditioning heater-bank insulation, lagging on steam and generator exhaust pipes, as well as lining and gaskets in some types of machinery.

There are two main types of asbestos containing products, these are:

- Non-Friable: The asbestos is bound within a matrix that does not allow airborne fibres to be readily generated (eg vinyl tiles, asbestos cement sheet). Asbestos fibres are not generally detected in the air above background levels near non-friable products unless the product is being physically damaged or abraded at the time of measurement.
- Friable: The asbestos containing material is easily damaged (eg pipe lagging) or its composition is such that airborne fibres can be generated readily. These do not generally give rise to detectable airborne asbestos levels unless they are physically disturbed for a significant proportion of the monitoring time. However, airborne fibres are more readily produced from friable products.

What is the risk associated with ACM?

The risk associated with ACM is the inhalation of airborne respirable-sized asbestos fibres. High levels of exposure to these airborne fibres over a prolonged period of time increase the likelihood of asbestos related diseases. The risk to health increases with the number of fibres inhaled and with the frequency of exposure.

It is important to note that ACM does not present a health risk when it is stable and contained in a bonded form that is maintained in good condition. In fact, many people in society are exposed to minute amounts of airborne asbestos fibres as they go about their daily lives, and do not develop asbestos-related health problems. Since asbestos is a naturally occurring material very small trace amounts of asbestos fibres are often found in the analysis of the natural 'fresh' air we breathe. (Note, this is referred to as the ambient background level of asbestos).

However, the release of airborne fibres is possible if a material deteriorates to a very poor condition or is disturbed (accidentally or intentionally) without appropriate safety control measures in place. The inappropriate use of high-speed power tools to cut, drill or sand bonded ACM or the incorrect handling of unbonded (friable) ACM, are examples of actions likely to cause fibres to become airborne. Putting a drawing pin into an asbestos cement wall is extremely unlikely to release any respirable fibres.

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How can asbestos affect my health?

Breathing in asbestos fibres can cause asbestosis, lung cancer and mesothelioma. The risk of contracting these diseases increases with the number of fibres inhaled and the risk of lung cancer from inhaling asbestos fibres is also greater if you smoke. People who get health problems from inhaling asbestos have usually been exposed to high levels of asbestos for a long time. For example: asbestos mining or milling industry, worked in industries involved in making or installing asbestos products, or are from the immediate families of these people. The symptoms of these diseases do not usually appear until about 20 to 30 years after the first exposure to asbestos. In all of these situations there was exposure to high levels of airborne dust, from either the processes involved or from the clothes of the workers.

How can the risk be minimised?

Awareness of the potential risks posed by ACM is an important starting point. Avoiding damage to ACM and minimising the release of dust when working with ACM will significantly reduce risk. Other control measures which will reduce risk include warning signs and labelling of friable ACM and controlling work involving ACM, the mandatory recording of asbestos details in an asbestos register, and the reporting of asbestos related incidents.

The University has carried out surveys to identify asbestos on all campuses. The University has removed all high risk asbestos and is progressively removing all asbestos. However this will take many years.

- Labelling: Higher risk ACM containing asbestos has been labelled. Items that are not generally labelled include low risk asbestos cement walls and ceilings, vinyl tiles and vermiculite ceilings.
- Remediation: A central budget exists for remediation and management of asbestos. Where an immediate risk is thought to exist, air monitoring will be done to assess potential exposure. If this indicates levels of air-borne asbestos above or near safe limits then immediate remediation will occur.

How is ACM identified, classified and recorded?

ACM, particularly when painted or finished in some other manner, is often difficult for even the experts to identify. The only accurate method to confirm the presence of asbestos is through laboratory testing. As a result the general position taken is that where the presence of asbestos is suspected, it is presumed to be the case until it is verified, with all precautions consequently taken to avoid accidental exposure.

The University maintains a register of known and presumed ACM.

Where can I get further information?

Where staff members are concerned about the location of asbestos and the above health issues, these concerns should be raised with the relevant supervisor or health and safety representative. For general information on asbestos and the Asbestos Register please contact the OHS Unit: http://www.deakin.edu.au/hr/contacts/ohs.php .