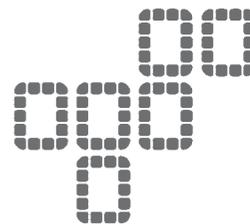
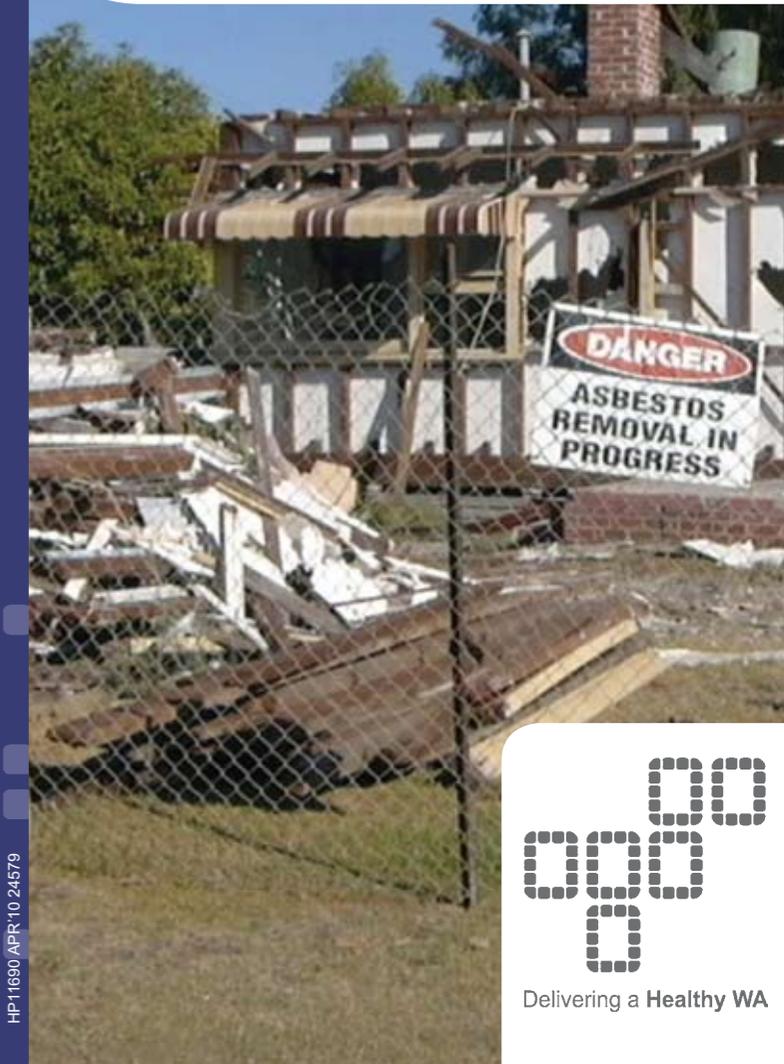




# Public Health and Contamination of Soil by Asbestos Cement Material



## What happens when a site is reported under the *Contaminated Sites Act 2003*?

Reporting obligations of the *Contaminated Sites Act 2003* primarily apply to the owner or occupier of the property or person or agency that caused the contamination. Normally the public do not get involved, although they can make a report if they wish.

Reporting a site will trigger a formal assessment by Department of Environment and Conservation and classification of the site (in one of seven possible categories) under the Act. This may require the owner or responsible party to have the site professionally investigated and if necessary cleaned up. It may be necessary to place a memorial on the Certificate of Title (MOT) of a property depending on the condition of the site.

More information on the Act and site classifications can be found at: [www.dec.wa.gov.au/contaminatedsites](http://www.dec.wa.gov.au/contaminatedsites)

## What does an MOT mean?

An MOT is a means of providing information to interested parties such as prospective owners on a site's contamination status. A site with a *Contaminated Sites Act 2003* classification of *Remediated for Restricted Use* means it is currently fit for specified uses, subject to some restrictions. For asbestos, this often means that there is some asbestos material present under a geo-textile warning fabric and covered by at least 50cm of clean soil. This combination of measures prevents easy access and acts as a warning that safe asbestos handling procedures are necessary if the contaminant's protective cover is penetrated.



## What about other asbestos materials?

Although ACM sheets, pieces and fragments are the most common soil asbestos contaminants, sometimes the asbestos can be present as fibrous or friable (easily broken) debris (possibly from use as cladding for hot water pipes, the backing of some electrical circuit boards or vinyl tiles) or free fibres in soil. As these other forms may more readily release free fibre to the air if disturbed, they are of higher risk than ACM. Therefore they need to be more carefully managed with assistance from Local Government Environmental Health Officers, Department of Health, licensed asbestos removalists and/or environmental consultants. Reporting under the *Contaminated Sites Act 2003* is required where free fibres are present in soil or there are clear grounds to suspect free fibres are present.

## Who can help?

For advice on asbestos site contamination, contact your Local Government Environmental Health Officer or the Department of Health on (08) 9388 4999.

For information on site contamination in general, contact Department of Environment and Conservation on 1300 762 982 or visit: [www.dec.wa.gov.au/contaminatedsites](http://www.dec.wa.gov.au/contaminatedsites)

## Reference material

The following useful Department of Health references are available at: [www.public.health.wa.gov.au/2/867/2/asbestos.pm](http://www.public.health.wa.gov.au/2/867/2/asbestos.pm)

- *Asbestos Cement Products in Your Home – 2003*
- *Asbestos in Carpet Underlay – December 2009*
- *Asbestos in Carpet Underlay – Frequently Asked Questions – December 2009*
- *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia – May 2009*

For Department of Environment and Conservation information on asbestos disposal or contaminated site reporting, respectively, the following websites and documents should be consulted:

<http://www.dec.wa.gov.au/pollution-prevention/controlled-wastes/publications.html>

- *Fact Sheet: Asbestos – Disposal of Material Containing Asbestos – 2007*

<http://www.dec.wa.gov.au/pollution-prevention/contaminated-sites/guidelines.html>

- *Contaminated Sites Reporting Series – Reporting of Known or Suspected Contaminated Sites – 2006*

Further information on safe asbestos practices and on licensed asbestos removalists is available through the WorkSafe website at:

<http://www.dec.wa.gov.au/pollution-prevention/contaminated-sites/guidelines.html> [www.commerce.wa.gov.au/WorkSafe/Content/Safety\\_Topics/Asbestos/index.htm](http://www.commerce.wa.gov.au/WorkSafe/Content/Safety_Topics/Asbestos/index.htm)

This document can be made available in alternative formats such as computer disc, audio tape or Braille, on request.

Produced by Environmental Health Directorate

© Department of Health 2010

HP11690/APR/10 24579

## Purpose of this brochure

This brochure provides information to the general public and landowners on safety and management of soil contaminated by sheets or pieces of asbestos cement material (ACM).

**In most cases, soil contaminated by ACM is quite safe if properly managed.**

## What is asbestos?

Asbestos is a naturally occurring fibrous crystalline mineral found in some rock formations. Three main types of asbestos have been mined and used in Australia: chrysotile (white asbestos); amosite (brown asbestos); and crocidolite (blue asbestos) from Wittenoom in Western Australia.

## What was asbestos used for?

Asbestos was extensively used in building products due to its strength and fire resistance. Its use was phased out and banned in Western Australia and nationally by the late 1980s. However, many older buildings and structures still contain asbestos.

Most of this asbestos is firmly bound in a cement or resin matrix and is perfectly safe while it remains undisturbed, as outlined in the Department of Health publication, *Asbestos Cement Products in Your Home – 2003*.

The most common asbestos building products are: flat wall sheeting; corrugated fence and roof sheeting; and sometimes pipes. These are made from cement sand aggregate and contain around 10–15% of asbestos by weight.

## How does soil contamination occur?

Poor construction, handling, demolition or disposal activities and also dumping can contaminate a site with ACM. Most commonly this involves asbestos cement sheets, pieces and fragments on or just beneath the soil surface, including stumps of asbestos fences or disused asbestos piping.

Soil ACM contamination can become an issue for people who:

- find such contamination on their property;
- are concerned about ACM on nearby properties or public areas;
- are purchasing a property which may be impacted (e.g. with a memorial on the Certificate of Title referring to managed asbestos soil contamination).

When a demolition or asbestos removal is occurring at a property it is very important that any asbestos is properly handled and does not result in air or soil contamination. Even if a licensed asbestos removalist is involved it is worth visually checking that no suspect fragments remain on-site afterwards.

## How can asbestos affect our health?

Health effects normally only result from prolonged breathing in of airborne asbestos fibres, usually at high concentrations, such as associated with some past work activities. Examples include asbestos mining and processing.

Once deposited in the lungs in sufficient quantities, asbestos fibres can initiate diseases that take many years to produce major health effects including asbestosis (severe lung scarring), lung cancer and the rare and asbestos-specific cancer mesothelioma. Crocidolite is usually considered the most dangerous type of asbestos.

Everyone is exposed to asbestos at some time in their lives, either in their workplace, their community or their

homes. Low levels of asbestos are present in the air, water and soil. However, most people do not become ill from this exposure.

ACM contamination of soil normally presents a very low public health risk, often comparable to background asbestos exposure. This is because asbestos is not released from the cement matrix except through extreme physical damage or severe weathering, which might occur over time if not properly managed. Adoption of precautionary measures and compliance with Government regulations will reduce risks even further.

## What precautions should be taken?

If you find potential ACM on or in soil it is safer to assume it is, unless proven otherwise. Laboratory analysis<sup>1</sup> is necessary for positive identification, but any sheet cement material is particularly suspect if it is from pre-1980s structures.

All known or suspect ACM should be carefully collected, well secured in a labelled heavy duty plastic bag or wrapping and transported to a suitable landfill or Local Government asbestos collection point. This should not be delayed especially if there is the possibility of the material being disturbed or damaged such as by traffic or lawn mowers. (Disposal guidance is contained in the Department of Environment and Conservation publication *Fact Sheet: Asbestos – Disposal of Material Containing Asbestos – 2007*).

Normally disposable gloves and good personal hygiene are sufficient for collecting the material. However, if there has been extensive fragmentation or the possibility of large sheet abrasion then a well-fitted P1 or P2 respirator should be worn and the area/material wetted, or services of a licensed asbestos removalist sought.

<sup>1</sup> Laboratories that can undertake asbestos analysis are listed in the Yellow Pages as "Chemists—Consulting &/or Industrial"

## Should I report asbestos contamination?

Reporting of ACM on your property to authorities is not normally necessary if the ACM is not crumbling and is sitting on the soil surface as pieces or sheets. Simply take the precautions outlined above for proper disposal.

If the suspect material is not on your property then it may be best to alert the owner or other relevant responsible person to the potential problem, for instance any demolition company involved.

If there is a significant amount of suspect material that is or may become buried or may become further damaged then contact the Local Government Environmental Health Officer or Department of Health. They can provide advice on or help manage the issue which usually can be resolved at this stage. In more complicated cases the site may need to be reported to Department of Environment and Conservation under the *Contaminated Sites Act 2003*.

