

# Schedule B1 and Schedule B2 Asbestos

Asbestos cement material (ACM) is frequently encountered in redevelopment sites in fill or from burial of building rubble. ACM in Australia typically contains 10–15 per cent asbestos by weight, bound in a cement matrix; it was commonly sold as 'fibro' sheets or boards for external cladding or internal wall lining as a base for tiling.

**ACM in sound condition, even if broken or fragmented, represents a low human health risk.**

If site history or site inspection indicates the possibility or occurrence of asbestos contamination, an assessment should be undertaken.

This should take the form of a preliminary site assessment followed by, only if necessary, a detailed site assessment.



The results of any assessment should inform an appropriate response or management strategy. For example, if a preliminary site assessment clearly indicates the extent of contamination to consist only of scattered ACM fragments on the surface, then remediation is relatively simple.

After remediation the exposed surface of the site under assessment should be free of visible ACM fragments and all ACM should be removed from the top 10 cm of soil as far as practicable. Alternatively a 30cm layer of topsoil can be layered over the site.

It is an inappropriate response to declare a site a human health risk on the basis of the presence of ACM alone. However, where the asbestos is not firmly bound in a matrix it may represent a significant human health risk and is defined in two categories:

- A screening level of 0.01 % w/w asbestos in ACM is adopted for standard residential use. The level is determined by appropriate sampling and quantification as % w/w using standard gravimetric methods. Levels of ACM below this are regarded as safe.
- Unbonded asbestos or fibrous asbestos (FA) includes loose fibrous material such as insulation products and low density board (up to 70% asbestos in calcium silicate). For the purposes of site assessment, FA includes any material that is easily powdered or made pasty with clear separation of asbestos fibres by moderate hand pressure.

Asbestos fines (AF) includes free fibres of asbestos, small fibre bundles and fragments of ACM that pass a 7 mm x 7 mm sieve.

A systematic visual assessment by a qualified and experienced assessor is required to determine if FA or AF are present. If there is uncertainty about whether the fibrous material is asbestos, then electron microscopy is the appropriate methodology to discriminate asbestos from other fibres e.g. cellulose based material.

A more stringent level of 0.001% FA or AF is applied due to the greater risk of air borne fibres. Levels of FA or AF below this are regarded as safe. The sub 7mm ACM fraction should be determined gravimetrically and compared to the 0.001% screening level.

There is no practical sampling and laboratory method to quantify dispersed FA at this level and the focus should be to ensure that the FA is appropriately remediated or managed.

If fibrous asbestos (FA) is not detected by systematic visual assessment then quantification is not required as it can be assumed that the soil level of FA is <0.001%w/w.



Raking of surface soils to remove ACM fragments

Significant aspects of NEPM guidance on asbestos assessment is based on *Guidelines for the Assessment and Management of Asbestos Contaminated Sites in Western Australia* (WA Department of Health, 2009)

NEPM guidance applies to asbestos materials in soil and does not address asbestos issues related to occupational health and safety, waste management or mining sites which are covered by specific regulations in each jurisdiction.