



SPREP
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Environment Programme



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FACTSHEET

ASBESTOS IN SOILS

Managing asbestos in soil has implications for the current and future occupants of the land and/or any workers employed on the site.



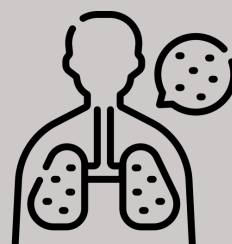
This Factsheet applies principally to poor historical management of asbestos materials, and not to illegal disposal or landfilling activities related to waste generated offsite. For additional guidance on this topic refer to your national *Asbestos Management Code of Practice (AMCOP)* for guidance on assessing asbestos in soils and its risks, abatement/remediation options, site controls to address hazards of asbestos in soils, and transport and disposal of asbestos impacted soils and debris.

Factors that influence management of asbestos in soils

The site history and information about how it came to be contaminated with asbestos provide useful insight into the nature of the issue.

The principal considerations in determining how to manage asbestos in soil include:

- the form of the asbestos containing material
- how readily it generates airborne fibres
- the extent or scale of asbestos contamination on the property
- is the asbestos predominantly on the surface or is buried at depth
- the current and possible future uses of the land and whether these uses may be materially impacted by the presence of asbestos containing material



Asbestos in soil exposure pathways

Inhalation of asbestos fibres is the only infection route established as causing harm to people. Other exposure routes (such as dermal contact or clothing contamination) may contribute to secondary exposure i.e. subsequent re-release of fibres into the air and inhalation following the initial exposure and are therefore important.

Current analytical evidence and studies available within the remediation industry suggest that significant visible quantities of non-friable ACMs such as asbestos cement would need to be present in the soil to result in airborne asbestos exceeding regulatory control limits.



Assessing and managing 'non-friable' asbestos in or on soils

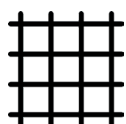
Where fragments of non-friable asbestos, i.e., asbestos-containing materials where the asbestos fibres are firmly bound within a matrix, like cement or resin, are identified on the soil surface, the fragments may be removed by hand-picking, tilling, or screening only when applying suitable work health and safety practices.



See PacWastePlus publication, ***Personal Protective Equipment: Guidance for Waste Management Workers in Pacific Island Countries***

at <https://pacwasteplus.org/resources/personal-protective-equipment-guidance-for-waste-management-workers-in-pacific-island-countries/>.

To undertake hand-picking activities, the following are a minimum process that should be applied:



A grid pattern should be used to ensure a structured and systematic approach to assessment and removal.



Upon completion, no visible asbestos fragments should be present on the surface.



The top 10 cm of wetted soil should be gently raked to expose any residual asbestos fragments.



The collected material should be securely wrapped in plastic sheeting and taken to an appropriate landfill

Assessing and managing 'friable' asbestos in or on soils

If friable asbestos, i.e., materials that is easily crumbled, pulverized, or reduced to powder with hand pressure, is identified in or on soil, all the following actions shall be taken:

- isolate and secure the area
- minimise the release of fibres into the air
- engage an asbestos removal licence holder permitted to conduct asbestos removal work.



References:

Exhaustive work has been done on this subject over the last few years. One may wish to review the following guidance documents for additional information on this topic. The principles underlying the guidance in this document are reflective of these documents:

New Zealand Guidelines for Assessing and Managing asbestos in Soil (BRANZ Ltd, November 2017) <https://www.baybuildinginspections.co.nz/wp-content/uploads/2020/01/Asbestos-In-Soil-.pdf>

Managing Asbestos in or on soil (NSW Government Safework) <https://www.safework.nsw.gov.au/resource-library/asbestos-publications/managing-asbestos-in-or-on-soil>

Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Sites in Western (Government of Western Australia, May, 2009) Australia. <https://ww2.health.wa.gov.au/~media/Files/Corporate/general%20documents/Asbestos/PDF/Guidelines-Asbestos-Contaminated%20Sites-May2009.pdf>



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