



Government
of South Australia

SafeWork SA

ASBESTOS IN THE WORKPLACE



safeworksa

DISCLAIMER

This publication contains information regarding occupational health and safety. It includes some of your obligations under the occupational health and safety legislation that SafeWork SA administers. To ensure you comply with your legal obligations you must refer to the appropriate Acts and Regulations.

This publication may refer to legislation that has been amended or repealed. When reading this publication always refer to the latest laws.

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WHAT IS ASBESTOS?

Asbestos is the name given to a group of fibrous silicate minerals that occur naturally in the environment.

The three main types are:

- chrysotile (often called white asbestos)
- crocidolite (often called blue asbestos)
- amosite (often called brown asbestos).

Other less common forms include:

- actinolite
- anthophyllite
- tremolite asbestos.

Under South Australian law, asbestos is defined as any material or object, whether natural or manufactured, that contains one or more of the mineral silicates listed above.

When asbestos is affected by heat or chemicals, or combined with other substances, its colour and appearance can change. There is no simple test to identify asbestos – an approved laboratory analysis is the only certain method.

Asbestos was a common component in a wide variety of industrial, manufacturing, building and construction applications in Australia from the 1940s to the late 1980s. It was used in the manufacture of more than 3000 products because of its durability, fire resistance and insulating properties.

The use of all forms of asbestos is banned in Australia (since 31 December 2003), with only a few, very specific, exemptions.

NATURALLY OCCURRING ASBESTOS (NOA)

Asbestos is found as a naturally occurring mineral in many parts of Australia. South Australia has naturally occurring asbestos (NOA) deposits which were mined during the early to mid-1900s in the areas near Robertstown – Truro – Lyndoch, 50-120km north of Adelaide. The asbestos occurs as replacement masses or, more commonly, in narrow shear zones up to approximately one metre thick.

A small portion of the population is considered at risk of being exposed to asbestos fibres from disturbance of natural asbestos. These people may include:

- rural workers and communities in towns close to areas of disturbance of asbestos-bearing soils
- construction workers involved in large scale earthworks projects in areas underlain by asbestos-bearing rocks and soils
- quarry or mine workers who inadvertently disturb asbestos-bearing materials.

Where NOA is planned to be or is being disturbed, an assessment by an occupational hygienist or other competent person is recommended.

A comprehensive risk assessment and safe work procedure must be developed with consultation and training provided to employees, contractors and the general public, and a monitoring programme for airborne asbestos fibres should be carried out during disturbance work on NOA.



Rocks containing naturally occurring fibrous silicate minerals

WHAT IS ASBESTOS CONTAINING MATERIAL?

Asbestos containing material (ACM) is any material or object that, as part of its design or structure, contains one or more of the mineral silicates referred to previously (other than plant in which asbestos is fixed or installed).

ACM can be friable or non-friable. Non-friable asbestos can also be referred to as 'bonded' and friable as 'non-bonded'. The terms are interchangeable.

Friable ('non-bonded') ACM when dry:

- may be crumbled, pulverised or reduced to powder by hand pressure, or
- as a result of a work process, becomes such that it may be crumbled, pulverised or reduced to powder by hand pressure.

Non-friable ('bonded') ACM is usually bonded or mixed with cement or similar material and cannot be crumbled, pulverised or reduced to powder by hand pressure.

HOW CAN ASBESTOS AFFECT YOU?

All types of asbestos can be damaging to your health. Asbestos that is broken, in poor or deteriorated condition, or disturbed during activities can produce dust containing asbestos fibres. Inhalation of asbestos fibres has a serious long-term (latency) health risk and exposure can cause:

- mesothelioma
- lung cancer
- asbestosis
 - pleural plaques
 - pleural thickening

Mesothelioma is a type of cancer in which malignant cells are found in the lining of the chest or abdomen.

Lung cancer forms in tissues of the lung, usually in the cells lining air passages.

Asbestosis is directly caused by breathing in fibres of asbestos leading to scarring and permanent damage to lung tissue.

The pleura is the tissue that lines the chest cavity and covers the surface of the lungs. Pleural plaques, a thickened patch on the pleura can form as a result of asbestos exposure.

Pleural thickening is similar to pleural plaques, but covers a larger area and can cause breathlessness if the thickening becomes extensive.

There can be a delay of many years between first exposure to asbestos fibres and any symptoms of these diseases, for example, the latency period for mesothelioma is generally between 35–40 years. People would not be aware of any sudden change in health after being exposed. Asbestos-related diseases have a devastating health effect and are often fatal, as treatments are largely ineffective.

WHERE CAN YOU FIND ASBESTOS?

A large amount of ACM is still present in the community in both workplaces and non-workplaces, including domestic premises. In the past, the asbestos cement manufacturing industry was the main consumer of asbestos fibres to produce products such as:

- asbestos cement roofing (sheets and shingles)
- external asbestos cement wall cladding, including 'brick look' cladding
- internal asbestos cement wall linings and ceiling linings
- moulded products such as flues, downpipes, guttering, water, storm water and sewerage pipes.

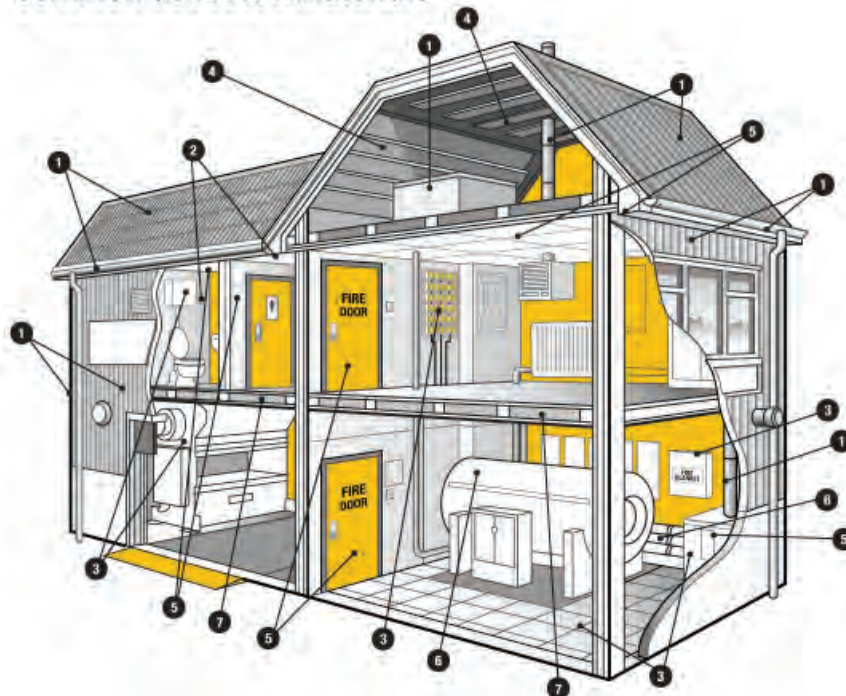
Other common ACMs include:

- textiles – asbestos containing felts, ropes, fire blankets and woven asbestos cable sheathing
- flooring – vinyl floor tiles and asbestos backed sheets sprayed insulation materials used for fire-proofing, thermal protection, insulation and soundproofing
- lagging and other loosely bound insulation materials used in a wide range of electrical, thermal and acoustic applications
- rubber, plastic and paint products (particularly industrial epoxy paints)
- sealants, gaskets, adhesives and filters
- brake pads, clutch components and other friction products.

It's important for a person managing or controlling a workplace, employers or self-employed persons to be aware of the typical uses and applications of ACMs, particularly in any building constructed or renovated prior to the mid to late 1980s.

Figure 1 overleaf shows some typical locations for the most common asbestos materials in a building.

Typical locations for the most common asbestos materials



Where am I likely to find asbestos materials?

- | | |
|--|---|
| 1 Asbestos cement products | 4 Sprayed coatings on walls, beams/columns |
| 2 Textured coatings | 5 Asbestos insulated board |
| 3 Floor tiles, textiles and composites | 6 Lagging |
| | 7 Loose asbestos in ceiling or floor cavity |

Figure 1: Typical locations for the most common asbestos materials.

Note: This diagram does not show all possible uses and locations of asbestos materials. A detailed survey is required to identify all asbestos materials in a building.

Source: Health and Safety Executive *Asbestos kills: Protect yourself!* Reproduced under the terms of the Click-Use Licence.

WHICH JOBS* ARE LIKELY TO COME ACROSS ASBESTOS?

ACM was widely used in building and construction projects up to the late 1980s. Many materials remain in place and as a result, the risk to workers is greatest during asbestos removal or during renovation or maintenance work that disturbs asbestos.

Occupations and trades that may come into contact with or work near asbestos include:

- demolition, roofing and construction contractors
- engineers (heating, ventilation and telecommunication)
- electricians
- painters and decorators
- joiners/carpenters
- plumbers and gas fitters
- plasterers
- builders and building surveyors
- shop fitters
- fire and burglar alarm installers
- maintenance workers
- automotive repair workers.

* These occupations and trades provide an indication only. They are in no particular order and are not exhaustive.

ASBESTOS IN THE HOME WORKPLACE

If paid employees are carrying out work in domestic premises, the domestic premises becomes a temporary workplace while the work is being done and the *Occupational Health, Safety and Welfare Act 1986* and the *Occupational Health, Safety and Welfare Regulations 2010 (OHSW Regulations 2010)* apply. In this case, the legal duties to protect health, safety and welfare are placed on the employer or self-employed person doing the work, not the homeowner.

The SafeWork SA booklet *Asbestos and the Home Renovator* provides information about asbestos for householders and advice about how to work with or remove asbestos in a safe and responsible way. The booklet is available from the SafeWork SA Library or via the website www.safework.sa.gov.au

MANAGEMENT AND CONTROL OF ASBESTOS IN THE WORKPLACE

BUILDING OWNERS' AND EMPLOYERS' DUTIES

In order to avoid the risk of exposure to asbestos, South Australia's *OHSW Regulations 2010* prescribe a number of duties for building owners and persons in possession or control of asbestos.

These duties apply to all types of installed asbestos or materials containing asbestos in:

- buildings
- plant
- equipment.

Building owners and employers are required to develop an asbestos management plan, and the process for developing one is outlined in the *National Code of Practice for the Management and Control of Asbestos in the Workplace [NOHSC: 2018(2005)]*.

The *National Code of Practice* is a documented plan for managing the risk from asbestos in the workplace and complying with regulatory requirements. The asbestos management plan includes the following phases:

- identification – includes the asbestos register and labelling
- assessment of condition of ACM, and risk to health
- control.

The flow chart (Figure 2) outlines the general principles of an asbestos management plan.

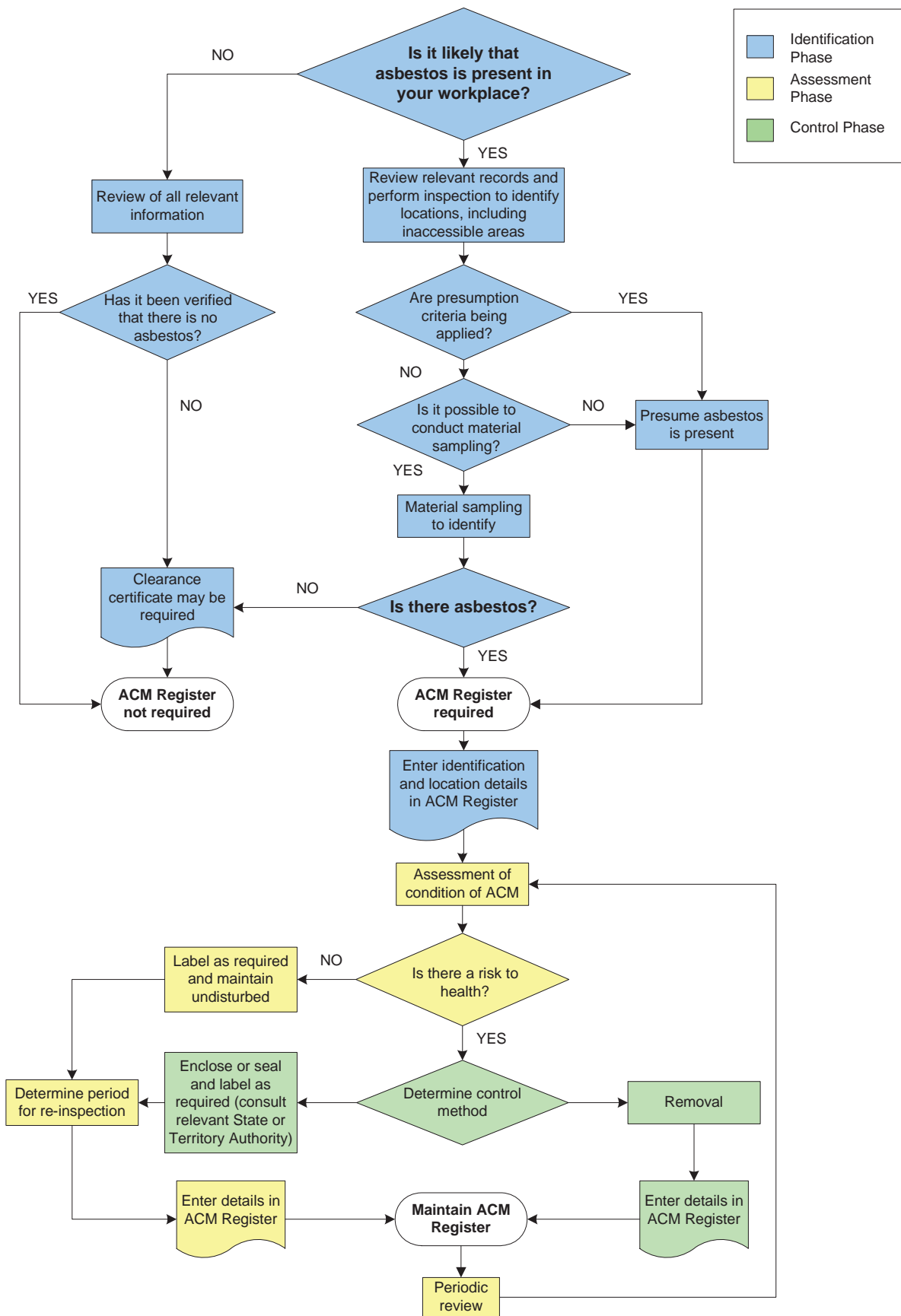


Figure 2: General principles of an asbestos management plan

Source: National Code of Practice for the Management and Control of Asbestos in the Workplace [NOHSC: 2018(2005)]

WHAT ASBESTOS MIGHT LOOK LIKE

The following images demonstrate the range of ACMs that may be found in workplaces.



Roof with corrugated asbestos cement roof cladding.



Underside of asbestos cement roof cladding.



Corrugate asbestos cement roof cladding



Asbestos vinyl tiles



Asbestos containing gasket



Damaged and exposed pipe wrapped with asbestos lagging



Fire rated door containing asbestos



Sprayed asbestos



Asbestos containing zelemite electrical switchboard panel



Friable asbestos insulation in an electrical fuse housing



Detached asbestos rope seal and remnant debris on duct.



Unfixed asbestos lagging from a pipe

IDENTIFYING ASBESTOS

REGISTERS AND LABELS

The ultimate goal is for all workplaces to be free of ACM, therefore, consideration should be given to removal where opportunities arise e.g. during refurbishment or maintenance. Identification and control measures are detailed in South Australian legislation.

Regulation 208 of the *OHSW Regulations 2010* prescribes the following:

Building owners and persons in possession of plant or equipment must take reasonable steps to identify any asbestos installed in any building or on any item of plant or equipment, by the use of a competent person (a person suitably qualified to identify asbestos).

Furthermore:

- These materials must be recorded in an asbestos register.
- Asbestos in workplaces must be clearly identified, and if reasonably practicable, labelled.
- Maintaining an updated asbestos register is part of an overall asbestos management plan.

If there is any uncertainty about the presence of asbestos, take a precautionary approach and assume that it is asbestos. A sample of the suspected material should be analysed for confirmation.

An asbestos register must be produced and kept up to date with all relevant information about the identified ACM. The register must include a record of:

- the location of the asbestos
- the type of ACM
- the nature of the ACM (friable or non-friable)
- the condition of the ACM
- any work activities that may affect or cause damage or deterioration to the ACM.

The asbestos register must be reviewed whenever there is a change to the condition of any asbestos for example if it is removed, enclosed or sealed.

Regardless of any changes, the register must be reviewed annually and revised if necessary, to keep it current.

Appropriate labels and warning signs must be displayed and be clearly visible to persons who are in the vicinity of the asbestos.

Signs should conform to *Australian Standard AS 1319 Safety Signs in the Occupational Environment*. The wording used on the signs should be appropriate to the situation e.g. for removal or identification in-situ (see examples following).



Examples of appropriate signage

Source: National Code of Practice for the Management and Control of Asbestos in the Workplace [NOHSC: 2018(2005)]

MANAGING ASBESTOS

DEMOLITION AND REFURBISHMENT WORK

The asbestos register must be reviewed before undertaking any demolition or refurbishment in the workplace. If a register is not available, the person performing the work will need to determine if there is any asbestos fixed or installed before starting work.

If asbestos is present and is likely to be disturbed by demolition or refurbishment work, it must be removed. In the case of demolition, it must be removed prior to work being undertaken.

ASBESTOS REMOVAL

Removal work must be performed by an asbestos removal licence holder and/or their employees, who are trained and instructed to safely perform the removal work.

Unlicensed removal of limited amounts of asbestos is permitted in certain circumstances only.

These include:

- in premises that are not workplaces
- where the quantity of non-friable asbestos to be removed is less than 10m²
- where friable asbestos material is being removed for repair or maintenance work (can only cover half a square metre (½ m²) or less in surface area).

Asbestos removal work must comply with strict safety requirements including:

- the use of protective clothing and equipment
- decontamination facilities, waste disposal procedures
- employee medical examinations
- the use of signs and barricades
- the preparation of an asbestos control plan.

For more information on these and other requirements, see the Safe Working Guide section and the *National Code of Practice for the Safe Removal of Asbestos [NOHSC: 2002(2005)]*.

LICENSED ASBESTOS REMOVALISTS

Licensed asbestos removalists must:

- have a safe work procedure or safe work control plan for the task/job
- obtain approval for the asbestos removal from SafeWork SA
- notify neighbours/or adjacent work areas of the asbestos removal
- put in place work area controls – signage, barriers, monitors

- use appropriate personal protective equipment (respiratory protection, disposable coveralls as a minimum)
- remove asbestos using properly trained and supervised employees (supervisors trained appropriately)
- bag (200-micron) and/or plastic wrap (200 micro plastic), seal and label asbestos waste materials
- organise air monitoring and a clearance certificate, clearance monitoring if needed
- amend the asbestos register when removal is conducted at a workplace
- dispose of asbestos waste to an Environment Protection Agency (EPA) licensed asbestos waste disposal facility
- retain air monitoring results and record employee exposures
- retain the receipt for the waste from the disposal facility
- send clearance, air-monitoring and waste information to SafeWork SA.

OTHER ASBESTOS-RELATED WORK

Employers have responsibilities for specific asbestos-related activities carried out in the workplace, which may include:

- hand drilling and cutting ACM
- transport of asbestos for disposal
- research involving asbestos
- sampling or analysis of suspected asbestos.

Responsibilities include:

- identifying asbestos
- eliminating airborne asbestos fibres
- controlling risk from the activity (by providing instruction, training and supervision)
- medical examinations for employees who conduct any ongoing asbestos-related activity.

PROHIBITED ACTIVITY

Due to the danger asbestos poses, the manufacture, supply, storage, transport, sale, use, reuse, installation and replacement of asbestos is banned in Australia. The law also prohibits the following:

- an employer, self-employed person or person who manages/controls the workplace, must not perform asbestos removal work or arrange for it to be performed, unless:
 - the person doing the removal work is an approved license holder (or an employee of a license holder)
 - the work is under the licensable quantities and is performed under safe conditions
- protective clothing contaminated with asbestos must not be removed from a workplace unless it is disposed of appropriately, as soon as reasonably practicable, or is contained to be commercially laundered
- brooms, brushes, high pressure water jets, power tools and similar instruments must not be used unless their use is controlled to ensure exposure to asbestos fibres is below half the exposure standard.

ASBESTOS EXPOSURE STANDARDS AND MONITORING

Asbestos poses a health risk whenever asbestos fibres become airborne and people are potentially exposed, regardless of whether they are in a workplace or not. Exposure should be prevented wherever possible and in workplaces, must not exceed the national exposure standard of 0.1 fibres per millilitre (f/mL) of air. There are three different types of monitoring for asbestos work:

- occupational monitoring
- control monitoring
- clearance inspection.

OCCUPATIONAL MONITORING

Occupational monitoring, or personal monitoring, measures airborne respirable fibres in the employees' breathing zone and compares with the national exposure standard. This type of monitoring is generally not carried out during removal work.

CONTROL MONITORING

Control monitoring or area/static monitoring, indicates the adequacy of controls put into place during asbestos work. Control monitoring measures airborne respirable fibre levels and compares them with the action levels shown below. If these levels are exceeded, action should be taken to re-evaluate controls.

ACTION LEVEL (AIRBORNE ASBESTOS FIBRES/ML)	ACTION
Less than 0.01	Continue with control measures
Between 0.01 and 0.02	Review control measures
More than 0.02	Stop removal work and investigate cause

Source: *Code of Practice for the Safe Removal of Asbestos [NOHSC: 2002(2005)]*

CLEARANCE INSPECTION

Clearance inspection may involve monitoring air or settled dust samples and a visual assessment to determine the effectiveness of asbestos decontamination work. Settled dust sampling may be used as an indication of cleanliness.

Clearance inspection should be carried out following asbestos removal work. All friable asbestos removal work must have a clearance certificate at the completion of work. The clearance certificate must be completed and the results assessed by a laboratory approved by SafeWork SA.

Air monitoring should not be used in isolation. Visual assessment is also needed to estimate asbestos contamination and exposure.

HEALTH SURVEILLANCE

To ensure the health and safety of employees in workplaces, health surveillance is an important part of the monitoring of exposure to asbestos.

The main purpose of health surveillance is to ensure control measures are effective. They also provide an opportunity to reinforce specific preventive measures and safe work practices.

The need for asbestos-related health surveillance is determined by an assessment of the potential for exposure to asbestos. Employers must arrange appropriate regular medical examinations for employees who conduct asbestos removal or are engaged in ongoing asbestos-related activities to identify any health changes resulting from their exposure to asbestos.

Additional guidance on health surveillance can be obtained from the *National Guidelines for Health Surveillance [NOHSC: 7039(1995)]*, which details the minimum requirements for health surveillance for those engaged in work that may expose them to asbestos and other hazardous substances.

ASBESTOS EXPOSURE REGISTER

Under the *OHSW Regulations 2010* employers have an obligation to keep a record of any exposure or likely exposure to asbestos.

Employers are to include in an asbestos exposure register:

- the name of those exposed
- the date and location of exposure
- and the type of work being carried out at the time of exposure.

All records relating to asbestos exposure are to be kept for 40 years from the date of last exposure.

The *OHSW Regulations 2010* call up the national codes of practice. For specific precautions and procedures of commonly encountered asbestos work, refer to:

- *Code of Practice for the Safe Removal of Asbestos [NOHSC: 2002(2005)]*
- *Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC: 2018(2005)]*.

Only licensed asbestos removalists can remove asbestos from workplaces where the quantity of non-friable asbestos to be removed is 10m² or more or there is any friable asbestos material.

Consider the following generic controls when developing your asbestos management plans.

WORKING WITH NON-FRIABLE/BONDED MATERIAL

If products containing bonded asbestos are maintained in good order, they do not present a significant health risk. However, safety precautions must be taken when working on any product containing asbestos. Work procedures should be developed to minimise the creation and release of dust or fibres.

When working with bonded asbestos products, you should:

- consult – let people know in advance (such as neighbours/occupants) that you will be removing asbestos
- close windows and doors on a building to prevent entry/exit of dust
- use barriers to restrict entry of unauthorised personnel to the work area and to control contamination. A clearance distance of 10m to the working zone is suggested
- place asbestos removal caution signs at the barriers, which comply with *AS 1319 Safety Signs for Occupational Environment*
- use personal protective equipment, including coveralls (preferably disposable) and an Australian Standards approved respirator (e.g. a half-facepiece P1/P2 respirator). Coveralls with Velcro-type fasteners are not suitable
- only use non-powered hand tools as they generate less dust – do not use power tools, such as abrasive cutters and sanders
- use wet methods to dampen material, or use an industrial vacuum cleaner that complies with the industrial vacuum cleaner and filtration Australian Standards to reduce the release of dust – do not use a household vacuum cleaner
- work in well-ventilated areas (where possible)
- use 200-micron thick plastic drop sheets to collect debris, and label and dispose of appropriately – take precautions to prevent slips and trips hazards
- clean-up using wet methods or a suitable vacuum cleaner
- dispose of waste and collected dust in 200-micron thick plastic bags that are sealed and clearly labelled 'CAUTION ASBESTOS - DO NOT INHALE DUST'
- avoid any abrading or scrubbing of the material's surface
- handle sheets of ACM carefully and try not to break them – do not drop roof or wall sheets to the ground
- do not use recycled plastic as it may contain flaws
- plastic used in asbestos removal is not to be reused
- transport material to an asbestos waste disposal facility as soon as possible.

WATER BLASTING

It is illegal to water blast asbestos containing materials because there is a high risk of asbestos fibres being released into the atmosphere and inhaled.

HOUSE RELOCATION

Although buildings clad in bonded asbestos material are considered to be in situ, it is recommended all bonded asbestos be removed from the building before it is relocated. Moving buildings clad with asbestos cement can cause the material to become loose and fall off, causing a hazard in transit or when the building is reconstructed. This could result in expensive clean-up costs. Any bonded asbestos material that is removed cannot be reused. Weathered asbestos roofing and gutters should be cleaned and removed prior to relocation.

CLADDING

Over cladding of bonded asbestos material should not be undertaken unless it can be carried out without causing damage to the bonded asbestos. Over cladding may result in more hazardous and expensive removal at a later date. All buildings with existing cladding over bonded asbestos should be labelled appropriately (somewhere on the building), to highlight to tradespeople and occupiers that the building contains bonded asbestos material.

REMOVAL OF ASBESTOS CEMENT PRODUCTS

Safe work procedures should be followed when removing asbestos cement products (including sheets of lining or cladding, guttering and down pipes) from buildings and other structures. To minimise breakage, care should be taken when removing asbestos cement products.

SAFE WORKING GUIDE

In addition to the controls mentioned earlier:

- when working on roofs, take appropriate precautions to prevent workers from falling off or falling through the roof cladding e.g. use suitable fall restraint devices or elevated working platforms
- remove bolts and screws, and remove the asbestos cement sheets with minimal breakage
- asbestos cement products should not be thrown into bins or onto the ground, but rather lowered as whole sheets (where possible)
- clean gutters by wetting down after removing the asbestos cement roof cladding – contaminated waste material must be bagged, labelled and disposed of as asbestos waste
- take precautions to prevent slips and trips hazards when working on roof surfaces
- if using a building skip or loading directly into trucks, line the internal surfaces with 200-micron thick plastic sheeting and ensure the load is securely covered and labelled before transporting to an authorised waste disposal facility
- pick-up visible asbestos cement debris in the roof space and around the removal area, then decontaminate using wet methods or a suitable vacuum cleaner
- use PVA to seal any residues of asbestos cement that cannot be removed, such as that on timber beams.

Plastic used for drop sheets and debris is not to be reused and is to be disposed of as asbestos waste.

ASBESTOS CONTAMINATED SOILS

A competent professional (licensed asbestos assessor and/or occupational hygienist) should assess the site to determine:

- if the asbestos material is bonded or friable
- the extent of asbestos contamination
- safe work procedures for the remediation of the site.

The assessment and safe work procedures should reflect the level of the hazards and the proposed use of the land. Environmental and planning legislative requirements must be complied with.

You should:

- have a documented safe system of work for the removal of asbestos contaminated soils, which includes clean-up procedures and requirements for personal protective equipment and disposal
- wear coveralls and suitable respiratory protection during the removal and clean-up process – the level of respiratory protection will depend on the type and condition of the asbestos material

- pick-up any obvious asbestos cement debris and place it into labelled asbestos waste bags
- keep asbestos contaminated soil wet at all times, place it in a sealed truck, cover it, then transport it to an Environmental Protection Authority (EPA) approved disposal facility
- decontaminate trucks that are used to transport asbestos contaminated soil before leaving the worksite and after disposing of the contaminated soil at the disposal facility
- carry-out work as outlined below under 'Removal of friable asbestos', if asbestos material is deemed to be friable.

REMOVAL OF FRICTION MATERIALS

Prior to 2004, chrysotile was used almost exclusively in the manufacture of motor vehicle friction material, such as brake and clutch linings. Installed brake components were a source of asbestos fiber exposure in the motor vehicle industry however with the replacement of this product, exposure has become less common.

Unless otherwise known, friction materials, such as brake components, should be treated as if they contained asbestos.

Appropriate written safe work procedures should be in place in all workplaces that handle motor vehicle brake components. Inspection of asbestos friction material should be treated as in situ asbestos.

Additional guidance is available in the *National Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC: 2018(2005)]*.

Compressed air must never be used to clean dust from surfaces and brake drums.

REMOVAL OF FRIABLE ASBESTOS

An unlimited asbestos removal licence is required to remove friable asbestos.

The procedures described in the *National Code of Practice for the Safe Removal of Asbestos [NOHSC:2002(2005)]* must be followed when removing friable asbestos from buildings and other structures. A clearance certificate must be obtained following the completion of all friable asbestos removal work.

RESPIRATORY PROTECTIVE DEVICES

Respirators should comply with the *AS/NZS 1716 Respiratory Protective Devices* and selected, used and stored in accordance with *AS/NZS 1715 Selection, Use and Maintenance of Respiratory Protective Devices*. Always refer to the manufacturer or supplier's information regarding the suitability of respirators.

Facial fit is a prime factor in obtaining good protection when utilising half or full-facepiece respirators. Employees must be clean-shaven when wearing respirators that rely on facial fit. Facial fit tests should be conducted to ensure an effective seal.

Employers must provide their employees with appropriate instruction and training on the proper wear and care of the respirators. To ensure that adequate protection is achieved at all times, a full respiratory protection programme is essential – it should include training, cleaning and storage requirements, and proper facial fit procedures. See *AS/NZS 1715 Selection, Use and Maintenance of Respiratory Protective Devices*.

BONDED ASBESTOS REMOVAL – LOW RISK

When inspecting areas for the removal of bonded asbestos or where friable asbestos removal work is not in progress, use a half-facepiece disposable or cartridge type particulate respirator (Class P1 or P2 filter).

FRIABLE ASBESTOS REMOVAL – HIGH RISK

Friable asbestos can generate very high levels of respirable fibre, which may give rise to serious health effects if inhaled. Absolute respiratory protection must be provided. Dust masks/respirators (Class P1 or P2 filter) are not suitable. See the *National Code of Practice for the Safe Removal of Asbestos [NOHSC: 2002(2005)]*.

SAFE DISPOSAL

COLLECTION AND STORAGE

All bonded asbestos waste must be:

- kept damp (prevent runoff water)
- collected, securely wrapped using 200-micron plastic and labelled or contained in labelled plastic lined bins
- placed in bins or trucks that are large enough to contain full sheets without breaking them or the plastic wrapping
- stored in a secure and appropriately signed area
- removed from the site as soon as practicable.

All friable asbestos material must be:

- kept damp
- collected and sealed in 200-micron thick, appropriately labelled, plastic bags
- decontaminated through the site decontamination procedures
- wrapped again (i.e. waste is double wrapped) in 200-micron thick plastic bags outside the work area
- in bags that weigh not more than 25kg and are less than half full
- stored in a secure and signed area, awaiting removal
- removed from the site as soon as practicable.

The EPA allows transport of asbestos contaminated soil in lined bulk trucks. This is provided the soil is kept damp, the load is securely locked and covered with plastic and a fully protective tarpaulin, and the truck is decontaminated before it leaves the waste facility.

All reasonable and practicable measures must be undertaken during the transport of asbestos contaminated soil to an authorised waste depot able to receive asbestos waste. This may include ensuring the soil is kept damp, the load is tarped and securely stored on the vehicle and that the vehicle is inspected to ensure no asbestos containing material remains on the vehicle prior to departure from the site.

All asbestos waste must be transported in a vehicle and containers able to contain the asbestos waste. If asbestos containing material is mixed with general building waste the entire load is deemed to be asbestos waste and must be disposed of to an EPA authorised facility able to receive asbestos waste.

Persons who transport asbestos waste for fee or reward require an environmental authorisation (licence) as a 'Transporter of Listed Waste'.

WHERE CAN I GET FURTHER INFORMATION?

DISPOSAL PROCEDURES

Asbestos waste in any form must be disposed of in a manner approved by the EPA and at a waste facility licensed by the EPA to accept asbestos waste.

South Australian licensed landfills that are able to accept asbestos waste from the public are listed on the EPA website. Please contact the facility prior to removing the asbestos to determine the cost of disposal, whether they have site specific conditions for acceptance and to ensure they continue to accept asbestos waste from the public.

Vehicles must be inspected to ensure no asbestos containing material remains on the vehicle prior to departure from the site. Generally asbestos waste and the containers used to contain asbestos waste should be co-disposed of at the waste depot and not separated to enable the containers to be reused.

Contact the EPA and/or the local council for details of waste facilities that can accept asbestos waste prior to removal of the asbestos containing material.

To demonstrate proof of proper disposal, copies of asbestos waste disposal receipts are to be kept for inspection by SafeWork SA, the EPA or the local council.

LEGISLATION/GUIDELINES

- *Occupational Health, Safety and Welfare Regulations 2010 – Division 2 Asbestos*
- *National Code of Practice for the Safe Removal of Asbestos (2005)*
- *National Code of Practice for the Management and Control of Asbestos in Workplaces (2005)*

PUBLICATIONS

The following publications are available from SafeWork SA

- SafeWork SA's *Asbestos and the Home Mechanic*
- SafeWork SA's *Asbestos and the Home Renovator*

website www.safework.sa.gov.au

USEFUL TELEPHONE NUMBERS

For more information about working with asbestos and preventing exposure, contact:

SafeWork SA's Help Centre

Telephone: 1300 365 255

Environmental Health Service, Department of Health

Telephone: (08) 8226 7100

The Environmental Health Officer (EHO) at your local council

For advice on the disposal of asbestos products in South Australia, contact:

Environment Protection Authority (EPA)

Telephone: (08) 8204 2004

- Website: www.epa.sa.gov.au
- Asbestos Waste Sheet:
www.epa.sa.gov.au/pdfs/guide_asbestos.pdf

OTHER USEFUL TELEPHONE NUMBERS

Asbestos Victims Association (SA) Inc.

Telephone: (08) 8212 6008 or Freecall 1800 665 395

Asbestos Diseases Society of SA Inc.

Telephone: (08) 8359 2423 or Freecall 1800 157 540

SAFEWORK SA

www.safework.sa.gov.au

HELP CENTRE 1300 365 255

Email: help@safework.sa.gov.au

(the Help Centre closes at 4.15pm on Wednesdays)

To report all serious workplace accidents and incidents telephone **1800 777 209** (24-hour service).

LIBRARY AND BOOKSHOP

Ground floor, 100 Waymouth Street, Adelaide

LIBRARY

Telephone: **(08) 8204 8877**

Facsimile: (08) 8204 8883

Email: library@safework.sa.gov.au

BOOKSHOP

Telephone: **(08) 8204 8881** or **(08) 8204 8882**

Facsimile: (08) 8204 8883

Email: bookshop@safework.sa.gov.au

Opening hours: 8.30am – 5.30pm, Monday to Friday

OFFICES

HEAD OFFICE

Level 3, 1 Richmond Road, Keswick

GPO Box 465, Adelaide, SA 5001

DX 715, Adelaide

BERRI

30 Kay Avenue

PO Box 346, Berri SA 5343

Telephone: **(08) 8595 2199**

MOUNT GAMBIER

Level 1, 11 Helen Street

PO Box 871, Mount Gambier SA 5290

Telephone: **(08) 8735 1199**

PORT LINCOLN

Civic Centre, Suite 10, 60 Tasman Terrace

PO Box 2862, Port Lincoln SA 5606

Telephone: **(08) 8688 3057**

PORT PIRIE

Level 1, 104 Florence Street

PO Box 462, Port Pirie SA 5540

Telephone: **(08) 8638 4777**

WHYALLA

15-17 Horwood Street

PO Box 696, Whyalla SA 5600

Telephone: **(08) 8648 8733**

FREE INTERPRETING SERVICE

Telephone the Interpreting and Translating Centre on **(08) 8226 1990** and ask them to contact SafeWork SA.

HEARING AND SPEECH ASSISTANCE

Contact us through the National Relay Service and ask for SafeWork SA 1300 365 255.

- for TTY/Voice: **133 677**
- Speak and Listen: **1300 555 727**

www.relayservice.com.au