

Asbestos

Information available on managing and removing asbestos-containing materials has been updated to reflect the changes to legislation effective from 1 January 2006.

What law applies

Responsibilities of employers, building owners, householders, renovators and asbestos removalists regarding asbestos

What is asbestos and where is it found

Types of asbestos, common locations including workplaces and dwellings, the health risks of asbestos

Information for householders and renovators

Asbestos in homes, renovating, using contractors

Identification and management of asbestos

Responsibilities, asbestos management plans, identification of asbestos, register of ACM, risk assessments, control measures

Safe working practices when maintaining asbestos

Safe work practices for painting, drilling or cleaning asbestos-containing materials, prohibited activities with asbestos

Asbestos removal

When is a licence required, information for non-licence holders, safe work practices for professional asbestos removalists

What law applies

Queensland's workplace health and safety legislation provides a framework for the regulation of asbestos related risk in work environments. The legislation places legal obligations on certain people and details requirements that must be complied with.

General health and safety obligations

To discharge your workplace health and safety obligations with regard to asbestos you must comply with the:

- *Workplace Health and Safety Act 1995*, which imposes obligations on people at workplaces to ensure workplace health and safety.

The *Workplace Health and Safety Act 1995* establishes mandatory requirements for controlling asbestos hazards through the:

- *Workplace Health and Safety Regulation 1997*
- *National Code of Practice for the Management and Control of Asbestos in Workplaces* (asbestos management code)
- *National Code of Practice for the Safe Removal of Asbestos 2nd Edition* (asbestos removal code).

The *Workplace Health and Safety Act 1995* also provides minimum standards, and practical advice for the control of workplace hazards through various codes of practice.

Every Queensland employer must have **workers' compensation** insurance. Most employers insure with WorkCover Queensland, while a small number of large organisations have their own insurance. This insurance coverage ensures that employees injured at work receive financial support.

What you must do

If the *Workplace Health and Safety Regulation 1997* describes how to prevent or minimise an asbestos-related risk at your workplace you **must** do what the regulation says.

Part 11 of the *Workplace Health and Safety Regulation 1997* refers to the national asbestos management code and the asbestos removal code. These codes are given legal standing in Queensland's workplace health and safety framework.

The practices, procedures and requirements set out in the national asbestos management code or the asbestos removal code **must be complied with** in the same manner as a regulation.

If there is no regulation or code of practice about a risk at your workplace you **must** choose an appropriate way to manage exposure to the risk. Obligation holders must, where there is no regulation or code of practice about a risk, take reasonable precautions and exercise proper diligence to manage the risk.

See the *Risk Management Advisory Standard 2000* (now known as a Code of Practice) for further information.

Specific regulations for asbestos

The main requirements relating to asbestos in the *Workplace Health and Safety Regulation 1997* are grouped into four divisions as follows:

- 1) Part 11, Division 2 prohibits the following:
 - the use of prohibited substances and prohibited asbestos-containing materials (ACM)
 - work on ACM unless it complies with the asbestos management code
 - removal of ACM unless it complies with the asbestos removal code
 - cleaning of ACM with power tools or power appliances, high-pressure water processes, compressed air or abrasive blasting.
- 2) Part 11, Division 3 stipulates that owners of buildings who have not complied with former regulations about the management of asbestos in buildings must now comply with the asbestos management code. Owners of structures that were compliant with former asbestos management regulations have until 1 January 2008 to comply with the asbestos management code.
- 3) Part 11, Division 4 requires that asbestos removal work be performed in accordance with the asbestos removal code.
- 4) Part 3A, Division 2 when read in conjunction with the Schedule 1 requires a person who performs the prescribed activity of asbestos removal work to obtain a licence to perform that work.

What is asbestos and where is it found?

What is asbestos

Exposure to asbestos can be fatal

Types of asbestos

Bonded asbestos, friable asbestos, examples of things containing asbestos

Where is asbestos found

Products containing asbestos, buildings, workplaces and homes

The health risks of asbestos

Asbestosis, mesothelioma, lung cancer

What is asbestos

Asbestos is a substance that can have potentially fatal health effects. While asbestos is now banned from use it was a component of thousands of different products used in the community and industry from the 1940s until the late 1980s.

Disturbed or broken asbestos products or materials can release minute asbestos fibres that once airborne are capable of being inhaled deep into a person's lungs.

These respirable fibres are a major health hazard and the adverse health effects, such as lung cancer, can take decades to become apparent. The lack of immediate health effects has often meant that victims are unaware of the dangers they are exposed to which means that exposure to the hazard can continue over a long period causing serious health effects.

Due to the serious health risks associated with asbestos it is essential that exposure to it is effectively managed.

Types of asbestos

Asbestos is commonly referred to by three types:

- chrysotile ("white" asbestos - belonging to the serpentine group)
- crocidolite ("blue" asbestos - belonging to the amphibole group)
- amosite ("brown" or "grey" asbestos - belonging to the amphibole group)

Under the law, asbestos-containing materials (ACM's) are divided into two types:

- **bonded asbestos-containing material** (bonded asbestos) contains a bonding compound reinforced with asbestos fibres

- **friable asbestos-containing material** (friable asbestos) is unbonded asbestos-containing material that, when dry, is or may become crumbled, pulverised or reduced to powder by hand pressure.

Bonded asbestos

Bonded asbestos can be found in products such as asbestos cement sheeting commonly used in building materials between 1940s to the late 1980s.

Other bonded asbestos products include:

- profiled sheets used on roofs and walls and flat sheets in flashings
- imitation brick cladding
- roof shingles
- water or flue pipes
- plaster patching compounds
- textured paint
- vinyl floor tiles
- friction products such as brake shoes, disc pads, clutch housings or elevator brakes.

From 1 July 2006, removal of 10 m² or more of bonded asbestos can only be done by a holder of a new 'B' class licence.

'B' class licences are issued to applicants who can demonstrate they are familiar with the practices and procedures for removing bonded asbestos set out in the asbestos removal code.

Competency can be demonstrated by:

- producing a certificate for asbestos removal work issued under the *Workplace Health and Safety Regulation 1997* before 1 February 2002
- producing a statement of attainment issued by a registered training organisation for a course which covers competencies for the removal of bonded asbestos material as set out in *Code of Practice for the Safe Removal of Asbestos 2nd Edition* [NOHSC:2002(2005)]
- passing an exam assessed by an authorised accredited provider or registered training organisation.

A person who removes less than 10 m² of bonded asbestos material does not require a licence, however, that person must be competent and comply with the practices procedures and requirements set out in the asbestos removal code.

More on removing asbestos

More on working safely with asbestos

Friable asbestos

Friable asbestos is easily crumbled or reduced to powder by hand.

Common forms of friable asbestos materials include:

- sprayed on fireproofing/soundproofing/thermal insulation
- acoustic plaster soundproofing
- thermal insulation (not sprayed on).

Currently, under the law, all friable asbestos removal work can only be done:

- by certified asbestos removalists who hold a licence to perform asbestos removal work
- as set out in the asbestos removal code.

From 1 July 2006 removal of any friable asbestos can only be done by a holder of a new 'A' class licence or a current certificate to perform asbestos removal work.

More on removing asbestos
More on working safely with asbestos

Where is asbestos found?

Materials that contain asbestos can be found in buildings, workplaces and dwellings built before 1990. Even in buildings, workplaces and dwellings built after 1990 it is possible that second hand items installed within them can contain asbestos. Asbestos can also be found in products or materials, for example brake disc pads. An extensive list of examples of asbestos-containing materials is available in Appendix A of the asbestos management code.

It is often very difficult to identify the presence of asbestos by sight. The only way to be certain is to have a sample of the material analysed by a laboratory.

Sampling of anything you suspect may contain asbestos is itself hazardous and should only be done by a competent person, and analysed only in accredited laboratories.

More information on identifying asbestos and where this can be done is available from the National Association of Testing Authorities (NATA).

Where materials are not tested you can presume that something contains asbestos and treat it as such. For example, if there is reliable manufacturer information on a product, a label stating something contains asbestos, or if it is a product of a type and age that typically contains asbestos you can presume it

contains asbestos. If this presumption is made the material must be treated as if contains asbestos for working with the material or removing it.

Workplaces

Asbestos was used in a variety of workplaces from the 1940s up until the late 1980s when the dangers to health due to exposure became more widely acknowledged. Asbestos is found in asbestos cement sheeting, as an insulator on pipes and in buildings, as a fire retardant in textiles and as a filtering material in the chemical and food industries.

An extensive list of examples of asbestos-containing materials is available in Appendix A of the asbestos management code.

Workplaces are required by law to identify and manage asbestos, and to follow the asbestos removal code.

Dwellings

In Queensland from 1940 until the late 1980s bonded asbestos was commonly used in the manufacture of asbestos-cement corrugated and flat sheets (fibro) for roofing and walls. Undisturbed or painted fibro does not pose a health risk.

Thermal or acoustic insulation used in homes may have also contained friable asbestos, the easily crumbled form of asbestos that can be reduced to powder by hand.

Friable asbestos is extremely dangerous and must only be removed by a certified asbestos removalist (holding either a current licence for asbestos removal work issued between 1 February 2002 and 31 December 2005 or an "A" class licence for asbestos removal work issued from 1 January 2006).

More on asbestos removal

To find an asbestos removalist refer to the Yellow Pages or check with the Asbestos Industry Association.

The health risks of asbestos

Breathing in asbestos fibres has been linked to three respiratory diseases, all of which can be fatal:

- **Asbestosis** is a chronic lung disease that can lead to respiratory impairment and to diseases such as lung cancer
- **Mesothelioma** is a cancer in two forms - pleural which is a tumour of the lung; and peritoneal, which is a cancer of the abdominal cavity
- **Lung cancer** caused by asbestos cannot be distinguished from those cancers that are caused by other agents such as tobacco smoke.

More information about asbestos related diseases is available from Queensland Health.

Information for householders and renovators

Materials containing asbestos were used in many homes before they were banned from use in Queensland in 1990.

Asbestos was typically used in fibro roofs, walls and soffits. In many houses fibro was also used internally for wet areas such as kitchens, bathrooms and laundries. Asbestos cement can also be found in flat sheets, profiled sheets, corrugated sheets, shingles, compressed sheets, rigid board insulation and building products such as pipes and guttering.

Second hand materials or products containing asbestos can also have been installed or used after asbestos was banned and may be found in newer homes.

An extensive list of examples of asbestos-containing materials is available in Appendix A of the asbestos management code.

It is often very difficult to identify the presence of asbestos by sight. The only way to be certain is to have a sample of the material analysed by a laboratory.

Sampling of anything you suspect may contain asbestos is itself hazardous and should only be done by a competent person, and analysed only in accredited laboratories.

More information on identifying asbestos and where this can be done is available from the National Association of Testing Authorities (NATA).

Householders and renovators can manage the risks of asbestos by:

- being aware of what asbestos is and where it can be found
- having suspect materials tested (by a competent person) or by treating suspect materials as if they contain asbestos
- being aware of the responsibilities of clients (which can include householders and renovators) and the responsibilities of asbestos removalists under the asbestos removal code
- ensuring that work removing any amount of friable asbestos is done by a certified asbestos removalist (holding either a current licence for asbestos removal work issued between 1 February 2002 and 31 December 2005 or an "A" class licence for asbestos removal work issued from 1 January 2006)
- ensuring that from 1 July 2006 removal of 10m² or more of bonded asbestos is done by a certified removalist (holder of a 'B' class licence)
- ensuring that removal of less than 10m² of bonded asbestos is done as described in the asbestos removal code

- ensuring that any work done with bonded asbestos is done as described in the asbestos management code.

More on removing asbestos

More on working safely with asbestos

Identification and management of asbestos

Obligations to identify and manage asbestos

The obligations under the law

Asbestos management plans

A requirement for managing asbestos in workplaces

Identification of asbestos

In workplaces and domestic premises

Register of asbestos-containing materials (ACM)

A register of ACM, risk assessments for ACM and control measures

Risk assessments

When asbestos is identified in the workplace

Control measures

Managing risks through control measures

Obligations to identify and manage asbestos

Under Part 11, Division 3, of the *Workplace Health and Safety Regulation 1997* owners of buildings and structures that are workplaces must comply with the requirements of the asbestos management code.

Under the *Workplace Health and Safety Act 1995* owner is defined to include a person who has control of or manages a workplace and a lessee, licensee, mortgagee in possession and a receiver or company administrator.

Under Part 7 of the asbestos management code owners of workplaces have obligations that may be summarised as follows:

- develop and implement and maintain an asbestos management plan
- investigate the premises for the presence or possible presence of asbestos-containing materials (ACM)
- assess the condition of any ACM that are found and the associated asbestos risks
- develop measures to remove the ACM or otherwise to minimise the risks and prevent exposure to asbestos
- ensure the control measures are implemented as soon as possible and are maintained as long as the ACM remain in the workplace.

Under Part 7 of the asbestos management code owners are also required to:

- consult with any person who may be affected by the presence of ACM; such as employers, workers, contractors and occupants
- provide information and training for workers, contractors and other people who may come into contact with ACM. The training may include procedures to be followed to prevent exposure, the types and locations of asbestos and the health risks of asbestos.

Asbestos management plans

Part 8 of the asbestos management code sets out the requirements for the development of an asbestos management plan for workplaces.

All workplaces built before 1 January 1990 should already have an asbestos register, and safety policies and procedures for friable asbestos.

By 1 January 2008 all workplaces must comply with the asbestos management code, which specifies obligations in relation to both friable and bonded asbestos material.

An asbestos management plan helps owners of workplaces comply with asbestos prohibitions and to prevent exposure to airborne asbestos fibres.

The plan should set out clear aims, stating what is going to be done, when it is going to be done, and how it is going to be done.

It should include:

- the workplace's register of ACM
- details of maintenance or service work on the ACM including:
 - who performed the work
 - the dates it was done
 - the scope of the work
 - any clearance certificates (see clearance inspections, part 11.10 of the asbestos management code)
- how people at risk are informed about ACM in the workplace, the risks they pose and the control measures in place
- decisions about management options and the reasons for these decisions
- a timetable for action, including priorities and dates for reviewing risk assessments and specific circumstances that may affect the timetable
- monitoring arrangements
- the responsibilities of people involved in the plan
- training arrangements for workers and contractors
- a procedure for reviewing and updating the management plan and the register of ACM, including a timetable
- safe work methods.

The following general principles must be applied in developing an asbestos management plan:

- the goal should be to rid workplaces of asbestos wherever possible rather than seek to control risk by sealing, enclosing or encapsulating asbestos-containing material
- all asbestos-containing material (ACM) should be labelled and recorded in a register
- a risk assessment must be conducted for all identified or suspected ACM
- control measures must be put in place to prevent exposure to airborne asbestos fibres
- there must be full consultation, information sharing and involvement during the development of each step of the asbestos management plan
- the identification of ACM and associated risk assessments should only be undertaken by competent people
- all people on premises where ACM are present must be fully informed about the consequences of exposure to asbestos and appropriate control measures.

Identification of asbestos

It is often very difficult to identify the presence of asbestos by sight. The only way to be certain is to have a sample of the material analysed by a laboratory.

Sampling of anything you suspect may contain asbestos is itself hazardous and should only be done by a competent person, and analysed only in accredited laboratories.

More information on identifying asbestos and where this can be done is available from the National Association of Testing Authorities (NATA).

Asbestos in the workplace

Part 9 of the asbestos management code requires that owners of workplaces must ensure all asbestos-containing materials (ACM) in their workplaces are identified, as far as practicable.

An owner must:

- identify the locations of all asbestos-containing material (ACM) and determine whether any inaccessible areas are likely to contain ACM
- identify the types (e.g. asbestos cement sheet, asbestos lagging on pipes and flues, asbestos-containing material gaskets in plant or machinery) and condition (i.e. damaged or intact) of ACM.

Only people who are competent in the identification of asbestos-containing materials are permitted to carry out these tasks.

More information on identifying asbestos and where this can be done is available from the National Association of Testing Authorities (NATA).

Asbestos identified in the workplace must be recorded in a register of asbestos-containing materials.

Warning signs and labels to identify ACM in the workplace should also be used to ensure that the asbestos is not unknowingly disturbed without the correct precautions being taken.

Asbestos in a domestic premises

Part 9.4 of the asbestos management code states how to manage asbestos in domestic premises when they are also workplaces, for example when someone is contracted to do work in a home that may expose them to asbestos, such as renovation work.

All businesses that perform work which may involve exposure to asbestos, including at domestic premises, should establish an asbestos management plan for the work to be carried out.

While many domestic premises contain ACM, they are unlikely to have a register of ACM. Precautions must be taken before work begins to identify the likelihood that ACM is present. While particular attention should be paid to buildings built prior to 1990, recycled materials used in buildings built after 1990 may contain asbestos.

Work at domestic premises that may involve exposure to ACM include:

- demolition and renovation
- electrical maintenance or installation, including work on electrical meter boards
- maintenance or installation of walls, roofing, ceilings or flooring
- plumbing maintenance or installation.

If there is any known or suspected asbestos on the premises, the owner, occupier and/or resident should be informed.

Where asbestos is present or assumed to be present, work should only continue in accordance with the risk assessment and control measures provided in Parts 10 and 11 of the asbestos management code.

Register of asbestos-containing materials

The asbestos management code and the *Workplace Health and Safety Regulation 1997* require that owners of workplaces keep an accurate register of asbestos-containing materials (ACM). All workplaces built before 1 January 1990 should already have an asbestos register, and safety policies and procedures for friable asbestos.

By 1 January 2008 all workplaces must comply with the asbestos management code, which specifies obligations in relation to both friable and bonded asbestos material.

Even if no asbestos is found, a register should still be kept which records this fact.

Part 9.3 of the asbestos management code details the information that the register should contain. This includes:

Identification

- dates of inspections
- locations of asbestos
- details of materials presumed to contain asbestos
- inaccessible areas that contain asbestos
- analysis results.

Risk assessment

- dates of risk assessments and details of the competent person that performed them
- findings and conclusions of risk assessments
- results of any air monitoring for airborne asbestos fibres.

Control measures

- the control measures resulting from a risk assessment
- full details of any maintenance work or service on ACM.

The register is to be made available to:

- workers and their representatives
- any other employers within the premises
- any person removing ACM

- any person engaged to perform work that may disturb ACM
- any other person who might be exposed.

Risk assessments

If asbestos-containing materials (ACM) are identified in a workplace, the person in control of the workplace must ensure the risks are assessed:

- in consultation with workers and/or their representatives
- by someone competent to perform the assessment.

A risk assessment allows informed decisions to be made about control measures, induction and training, air monitoring and health surveillance requirements for a workplace with ACM present.

The risk assessment should take into consideration the information held in the register of ACM, including:

- the condition of the ACM (whether it is friable or bonded and stable, and whether it is liable to damage or deterioration)
- the likelihood of exposure
- whether the nature or location of any work to be done is likely to disturb the ACM.

The results of the risk assessment should be documented in the register of ACM.

More information is available in Part 10 of the asbestos management code.

Read more about risk assessments and the risk management process.

Control measures

Control measures are the ways that asbestos-related risks are managed, and should be identified and implemented as a result of risk assessments and as part of an over-arching asbestos management plan.

Part 11 of the asbestos management code states what obligation holders, such as building owners, must do to manage asbestos-related risk, including:

- implement the asbestos management plan
- control maintenance work
- not perform prohibited activities with asbestos
- perform maintenance and service work likely to disturb ACM as stated in the asbestos management code
- following safe work practices when working with asbestos

For the complete requirements see Part 11 of the asbestos management code.

Control measures should reflect the hierarchy of controls set out in Part 5 of the asbestos management code:

1. elimination/removal (most preferred)
2. isolation/enclosure/sealing
3. engineering controls
4. safe work practices (administrative controls)
5. personal protective equipment (PPE)

A combination of these may be required to adequately manage asbestos-containing materials (ACM).

Control measures should also reflect the principles set out in Part 11.1 of the asbestos management code.

Safe work practices when maintaining asbestos

Safe work practices

Safe work practices with different asbestos products

Preparation for maintenance or service work

Establishing barriers, preparing work areas

Safe maintenance and work techniques

Tools, personal protective equipment, asbestos vacuum cleaners, decontamination, clearance inspections, waste removal and disposal

Prohibited activities with asbestos

Specific prohibitions, what you must not do under the law

Safe work practices

Safe work practices or methods prevent hazardous asbestos fibres becoming airborne and reduce the risk of them being inhaled.

All work on asbestos-containing materials (ACM) **must** be carried out in accordance with the practices and procedures set out in the:

- *National Code of Practice for the Management and Control of Asbestos in Workplaces* (asbestos management code)
- *National Code of Practice for the Safe Removal of Asbestos 2nd Edition* (asbestos removal code).

The appendices of the asbestos management code contain specific instructions for how to safely work with ACM which **must be followed** for:

- drilling of asbestos-containing materials
- sealing, painting, coating and cleaning of asbestos cement products
- cleaning leaf litter from the gutters of asbestos cement roof
- replacing cabling in asbestos cement conduits or boxes
- working on electrical mounting boards (switchboards) containing asbestos
- inspection of asbestos friction materials

Preparation for maintenance or service work

It is essential to have the correct tools, personal protective equipment, decontamination materials, barricades and warning signs prior to work commencing, and to minimise the number of people in the work area.

Establishing barriers

- The asbestos work area should be clearly defined to ensure that non-essential people do not enter, and to warn people that asbestos work is being carried out.
- Potential entry points to the asbestos work area should be signposted or labelled in accordance with AS 1319: *Safety signs for the occupational environment*. These labels should be weatherproof, constructed of lightweight material and be adequately secured.

More information on establishing barriers can be found in section 11.4.1 of the asbestos management code.

Preparing the work area

- Before commencing work, plastic sheeting may need to be placed on the floor and any other surfaces that may become contaminated with asbestos dust. At a minimum, heavy duty 200 µm thick plastic sheeting should be used.
- Wet wiping or vacuuming of the surface that is to be worked on may also be necessary before commencing work. This is to minimise the disturbance of asbestos fibres on the surface.

More information on preparing the work area can be found in section 11.4.2 of the asbestos management code.

Safe maintenance and service work techniques

Wherever possible, **dry ACM should not be worked on.**

Techniques

Techniques to prevent or minimise the generation of airborne asbestos fibres include:

- the wetting of ACM using surfactants or wetting agents such as detergent water
- the use of thickened substances, pastes and gels, such as hair gel or shaving cream, to cover the surfaces of ACM that are to be worked on (these substances should be compatible with the condition of use, including temperature, and not pose a health risk)
- the use of shadow vacuuming
- performing the task in a controlled environment e.g. a ventilated enclosure.

Ensure that the work has been assessed for any electrical hazards that may result from the use of water or other liquids. If an electrical hazard exists, primary

consideration should be given to removing the ACM, rather than relying on dry work methods.

More information on safe maintenance and service work techniques can be found in section 11.5 of the asbestos management code.

Tools

- High-speed abrasive power and pneumatic tools such as angle grinders, sanders and saws and high-speed drills **must never be used**.
- Manually operated hand tools should be used wherever possible.
- Low-speed battery-powered tools should only be used where manually operated hand tools cannot provide sufficient physical force to perform the work.
- At the end of the work all tools must be:
 - fully decontaminated - read section 11.9.2 of the asbestos management code
 - placed in sealed containers
 - disposed of as asbestos waste.

More information on tools can be found in section 11.6 of the asbestos management code.

Personal protective equipment (PPE)

The risk assessment should determine the need for and the appropriate types and levels of PPE. This includes respiratory equipment.

All respiratory protection equipment should meet the requirements of *AS/NZS 1716: Respiratory protective devices*.

More information on PPE is available from:

- workplace health and safety subject - personal protective equipment
- section 11.7 of the asbestos management code
- section 9.7 and Appendix C of the asbestos removal code.

Asbestos vacuum cleaners

- Household vacuum cleaners **must never be used** where asbestos is or may be present - even if it has a HEPA filter.
- PPE should be worn whenever an asbestos vacuum cleaner is opened to change the bag or filter, or to perform other maintenance.
- Asbestos vacuum cleaners should only be emptied by a competent person:
 - with the correct PPE
 - in a controlled environment
 - in compliance with the manufacturer's instructions.
- Wherever possible, asbestos vacuum cleaners should not be hired as they can be difficult to fully decontaminate.

- Hiring may be more viable in some cases, e.g. when a one-off maintenance task is required.
- Asbestos vacuum cleaners should only be hired from organisations that provide vacuum cleaners specifically for work with asbestos.

More information on vacuum cleaners is available in section 11.8 of the asbestos management code.

Decontamination

The type of decontamination required depends on the type of asbestos (friable or non-friable), the work method used and the site conditions.

There are two procedures for **workplace decontamination**:

- wet decontamination - using wet rags to wipe down contaminated areas
- dry decontamination - involves carefully rolling or folding up and sealing plastic sheeting and/or vacuuming the asbestos work area with an asbestos vacuum cleaner. This method should only be used where wet methods are not suitable or pose a risk because of electricity or slippage.

If extensive contamination has occurred, an asbestos removalist should be engaged to perform the decontamination. Clearance monitoring may be required.

All **tools, equipment and reusable respirators** used during the work should be dismantled (where appropriate) and decontaminated. This should be done using either wet or dry decontamination methods.

Personal decontamination must be undertaken every time a worker leaves the asbestos work area and again when the asbestos task is completed.

More information on decontamination procedures can be found in section 11.9 of the asbestos management code.

Clearance inspections

A risk assessment should determine whether a clearance inspection is required on completion of the asbestos task.

These inspections can include:

- visual inspections
- clearance monitoring
- settled dust sampling.

More information on these types of inspections is available in section 11.10 of the asbestos management code.

Waste removal and disposal

Asbestos waste should always be removed and disposed of by a competent person. This includes contaminated PPE and cleaning materials used in the work.

Asbestos waste can be collected and disposed of in:

- asbestos waste bags
- solid, sealable asbestos waste containers such as bins or drums, if storage is required.

Controlled wetting of asbestos waste should be used to reduce the possibility of dust emissions during the bagging or containment of the waste.

More information on waste disposal methods can be found in section 11.11 of the asbestos management code.

Prohibited activities with asbestos

The *Workplace Health and Safety Regulation 1997* and sections 11.6 and 11.8 of the asbestos management code prohibit the use of certain tools and work methods when working with ACM as they can generate dangerous airborne asbestos fibres.

These prohibitions include the use of:

- high-speed abrasive power and pneumatic tools
- high-pressure water cleaners
- compressed air or abrasive blasting
- household vacuum cleaners even if they have a HEPA filter. Only vacuum cleaners specifically designed for safe work with asbestos may be used.

For full details of prohibited activities with asbestos refer to Sections 11.6 and 11.8 of the *asbestos management code*.

Asbestos removal

Removal of less than 10m² of bonded asbestos

Must be done by a competent person and comply with the asbestos removal code

Removal of 10m² or more of bonded asbestos or any quantity of friable asbestos

Safe removal of 10m² or more of bonded asbestos or any quantity of friable asbestos

Responsibilities of the client

What clients (this can include home owners) must do when having asbestos removed

Responsibilities of asbestos removalists

What asbestos removalists must do

Planning for the removal of asbestos-containing materials (ACM)

Control plans, emergency plans, hot surface plans, decontamination plans

Requirements for the removal of ACM

Requirements for asbestos removal

Specific asbestos removal procedures

Examples of procedures for specific asbestos removal tasks

Removal of less than 10m² of bonded asbestos

The removal of less than 10m² of bonded asbestos does not require a licence, however it can only be performed by a competent person.

A competent person is a person who possesses adequate qualifications, such as suitable training and sufficient knowledge, experience or skill, to perform a specific task safely.

All asbestos removal work must be undertaken in compliance with the *Code of Practice for the Safe Removal of Asbestos* 2nd edition [NOHSC: 2002(2005)].

More on the general requirements for removing asbestos

Removal of 10m² or more of bonded asbestos, or any quantity of friable asbestos

Work to remove **any amount** of friable asbestos must be done by a certified asbestos removalist (holding either a current licence for asbestos removal work issued between 1 February 2002 and 31 December 2005 or an "A" class licence for asbestos removal work issued from 1 January 2006).

Work to remove any asbestos material must be done to comply with the asbestos removal code and the asbestos management code.

From 1 July 2006:

- work to remove 10m² or more of bonded asbestos-containing material must also be done by a certified asbestos removalist
- the required licences for asbestos removal are:
 - **A Class licences** covering work involving both the removal of friable asbestos-containing material and bonded asbestos material of 10 m² or more. People who hold a licence to carry out the removal of asbestos issued between 1 February 2002 and 31 December 2005 will be deemed to hold an A Class licence.
 - **B Class licences** only covering work to remove 10 m² or more of bonded asbestos material. Such a licence **does not** permit its holder to remove friable asbestos.

More on the general requirements for removing asbestos

More on the requirements for removing friable asbestos

Read about requirements for becoming an asbestos removalist.

Responsibilities of the client

A client is defined as a person in control of a house or building (either the owner, occupier, lessee or employer) who commissions asbestos removal work.

Under Part 7 of the asbestos removal code the client must do the following:

- ensure that an asbestos removalist is used to perform asbestos removal work
 - Removal of friable asbestos requires a certified asbestos removalist
 - Removal of 10m² or more of bonded asbestos requires a certified asbestos removalist from 1 July 2006
 - Removal of less than 10m² of bonded asbestos does not require a certified asbestos removalist, but the asbestos removalist must be competent
- nominate one or more people to liaise with the asbestos removalist
- request the details of the removalist's licence (if the removal work is for friable asbestos or 10m² or more of bonded asbestos)
- ensure a copy of the workplace's register of asbestos-containing materials (ACM) is given to the asbestos removalist. If there is no register of ACM it is the owner's responsibility to create one **before** work starts
- the owner must provide an asbestos removalist with detailed work specifications and requirements. This information is to include details of what is to be removed, where it is located and any hazards that may be associated with the asbestos removal work.

More information on the obligations of the client is available in section 7.2 of the asbestos removal code.

Responsibilities of asbestos removalists

Under Part 7.3 of the asbestos removal code, asbestos removalists must do the following:

- hold a licence to perform asbestos removal work where required -
 - removal of friable asbestos requires a certified asbestos removalist
 - removal of 10m² or more of bonded asbestos requires a certified asbestos removalist from 1 July 2006
 - removal of less than 10m² of bonded asbestos does not require a certified asbestos removalist, but the asbestos removalist must be competent
- If applicable, provide details of their licence to the client
- develop an asbestos removal control plan **before** work starts
- ensure asbestos removal is carried out safely
- ensure asbestos removal supervisors have appropriate knowledge of precautions and procedures
- ensure persons performing the removal of ACM are competent to perform the tasks
- provide people doing asbestos removal work with adequate training to prevent risk to themselves and others
- establish a health surveillance program as determined by an assessment of potential risk.

More information on the obligations of asbestos removalists is available in section 7.3 of the asbestos removal code.

Planning for the removal of ACM

Planning requirements for the removal of ACM depend on:

- the specific asbestos removal task
- the type, location, quantity and condition of ACM to be removed
- whether there are workers or other people nearby.

Asbestos removalists should develop a site-specific control plan before starting any asbestos removal.

A control plan should include information on how identification, preparation, removal, decontamination and waste disposal will be done. More information on the components that a control plan should address is available in section 8.1 of the asbestos removal code.

Other planning that should be done by the asbestos removalist include:

- emergency plans
- planning for ACM removal from hot surfaces
- planning for decontamination.

Information on these plans can be found in sections 8.2, 8.3 and 8.4 of the asbestos removal code.

Requirements for the removal of ACM

Requirements for removing any and all ACM
Requirements when removing friable asbestos

Requirements for removing any and all ACM

Part 11 Division 2 of the *Workplace Health and Safety Regulation 1997* states requirements for the removal of all asbestos-containing materials that must be followed.

These requirements include:

- minimising the risk of exposure from asbestos fibres in asbestos removal area
- erecting a containment barrier
- monitoring the atmosphere
- controlling release of asbestos fibres
- stopping work if monitoring reveals asbestos fibres are more than 0.5 of the concentration stated in the national exposure standard for the asbestos
- dismantling containment barriers safely.

Part 11 Division 3 of the Workplace Health and Safety Regulation 1997 also states prohibitions on activities involving asbestos where:

- high-speed abrasive power or pneumatic tools such as angle grinders, sanders, saws and high-speed drills must never be used
- high-pressure spray equipment must never be used
- domestic vacuum cleaners should never be used, even if they have a HEPA filter.

Part 9 of the asbestos removal code states requirements for the removal of all asbestos-containing material (ACM) from workplaces that must be followed.

The requirements include:

- determining the asbestos removal boundaries
- security, signs and barriers
- electrical and lighting installations
- preparation activities, including:
 - minimising the number of people present
 - using the correct tools
 - personal protective equipment (PPE)
 - decontamination materials
- methods for removing ACM, which include:
 - wet spray method (most preferred)
 - dry removal method (least preferred)
- inspection of equipment
- personal protective equipment including:
 - respiratory protective equipment
 - protective clothing and footwear
- air monitoring
- decontamination
- waste removal
- disposal of asbestos waste.

Requirements when removing friable asbestos

The **removal of friable asbestos** in any quantity must be done:

- by holders of the appropriate asbestos removal licence
- in accordance with the general requirements for the removal of ACM from workplaces (outlined in the section above) and detailed in Part 9 of the asbestos removal code

and

- in accordance with the additional requirements for the removal of friable ACM detailed in Part 10 of the asbestos removal code

Both sets of requirements under the asbestos removal code must be met when removing friable asbestos.

Generally the asbestos removal code states ACM that are friable should be removed using wet methods wherever possible, and within an enclosed area.

In addition:

- all ventilation and air-conditioning networks servicing the asbestos work area should be closed down for the duration of the asbestos removal work and all vents thoroughly sealed to prevent the entry of airborne asbestos fibres into the duct network.
- upon completion, and after final cleaning of the asbestos work area, all mechanical ventilation filters for recirculated air should be replaced.
- care should be taken to ensure that airborne asbestos fibres cannot escape at points where pipes and conduits pass out of the asbestos work area.

Part 10 of the asbestos removal code provides descriptions of methods used in the removal of friable asbestos which should be followed including:

- negative pressure exhaust units – to prevent the escape of asbestos fibres from enclosed asbestos work areas
- enclosures for large-scale asbestos removal work – including design and installation considerations, testing of enclosures and decontamination
- mini-enclosures for small-scale asbestos removal work
- glove bag removal method

View the asbestos removal code

Specific asbestos removal procedures

Part 9 and 10 of the asbestos removal code detail the requirements for the removal of ACM including:

- determining boundaries for the work area and asbestos removal site
- security signs and barriers
- electrical safety
- preparation for asbestos removal work
- negative pressure exhaust units
- enclosures for asbestos removal work
- wet and dry removal methods
- glove bag removal method
- 'wrap and cut' removal method
- asbestos removal equipment
- personal protective equipment

- air monitoring
- decontamination
- waste removal
- disposal of asbestos waste
- recycling of construction materials.

Examples of specific asbestos removal procedures can be found in Part 12 of the asbestos removal code and must be followed when removing ACM.

These examples cover:

- removal of asbestos-cement products
- removal of vinyl floor tiles and sheet vinyl containing asbestos
- removal of asbestos-backed vinyl and millboard from beneath a vinyl floor
- removal of asbestos gaskets and rope from plant and equipment
- removal of asbestos switchboards or meter boards
- removal of asbestos mastics and bitumen
- removal and cleaning of ceiling tiles
- removal of asbestos friction products.