Policy No. 2013- 19

Asbestos Policy

CONTENTS:

1 Purpose

This policy applies to all employees of the Central Highlands Council (Council) and has been developed to ensure the effective management of asbestos on properties under the control of Council, as well as providing a documented process to ensure compliance with legislative requirements.

The purpose of this policy is to ensure compliance with, and support of, legislative and departmental requirements relating to the management of asbestos under the control of Council.

Council is committed to providing a safe environment for staff, visitors, contractors and the public. This policy provides a structure for the on-going management of asbestos-related risks within Council.

This policy must be strictly adhered to and all legislative requirements are to be complied with. All key parties are required to fulfil the duties and obligations as detailed in the Policy.

2 General Introduction.

2.1 What is Asbestos?

Asbestos is a naturally occurring rock mineral. It is very durable and has excellent fire resistance and insulating properties.

Asbestos was widely used during the 1940's to 1990's in house-hold and industrial products such as:

- fibre-cement pipes
- wall panels
- roof sheeting.

It was also used in mechanical and mining industry products such as brake disc pads and gaskets.

It is very difficult to identify asbestos by looking at it. If you are uncertain about what a substance is, you should treat it as though it contains asbestos. The only way to be certain is to have a sample analysed by a laboratory. A licensed asbestos removalist or occupational hygienist could also help with identification.

2.2 The Three Main Types of Asbestos.

White (chrysotile) – often used in house-hold appliances and buildings.
Brown (amosite) – used in thermal insulation products and sprayed applications.
Blue (crocidolite) – used for insulation laggings and sprayed applications.

Australia banned the manufacture, import and installation of products containing blue and brown asbestos on 31 December 1984. Use of white asbestos was banned from 1 January 2004. However, buildings may still contain asbestos and you need to know what to do if you come across asbestos in your home or workplace.

2.3 Types of Asbestos Products.

Over 3,000 asbestos materials were manufactured or used in homes and workplaces in Australia. These can be divided into two types; Non Friable and Friable.

2.3.1 Non Friable.

Non-friable materials are mainly made of a bonding compound (such as cement). They usually contain between 10% and 20% asbestos. They are solid and rigid and the asbestos fibres are tightly bound in the material. They present minimal health risk unless fibres are released by crushing, grinding or cutting.

Examples of the products include:

- Flat (fibro), corrugated or compressed asbestos cement sheeting,
- Asbestos cement pipes such as electrical, water, drainage and flue pipes,
- Brake and clutch linings.

The Goliath Cement factory (now Cement Australia) at Railton in Tasmania was a major producer of asbestos sheeting. Only the James Hardie and Wunderlich companies produced more. Products manufactured by Goliath included Tasbestos, Plankton, Flexboard, Shadowall and Tasbestile.

2.3.2 Friable.

Friable materials contain asbestos in powder form. It can also be material that can be crumbled, crushed or reduced to powder by hand pressure when dry. Friable asbestos materials can consist of up to 100% asbestos. Friable asbestos is highly dangerous as the fibres are more likely to become airborne if disturbed.

Examples of the products include:

- Sprayed limpet,
- Asbestos cloth and rope,
- Millboard,
- Pipe lagging,
- Boiler lagging.

2.4 Where Might Asbestos be Located at a Residence, Workshop or Work Environment?

Asbestos materials may be found in the following:

- Asbestos ceiling tiles,
- Asbestos cement sheet,
- Asbestos roof tiles and eaves,
- Cement sheet walls – including brick cladding,
- Moulded products such as flues, downpipes, guttering, water and sewerage,
- Door seals on ovens,
- Electrical switchboards,
- Fire blankets,
- Vinyl floor tiles,
- Lagging and jointing using tape and rope,
- Paint – typically industrial epoxy,
- Sprayed insulation,
- Tilux sheeting in place of ceramic tiles in bathrooms,
- Carpet underlay,
- Tile backing,
- Putty,
- Lift shafts.

Asbestos was also commonly used in the manufacture of brake disc pads.

The most common places that asbestos is found in homes are the wet areas, e.g. cladding behind showers, sinks, toilets and in laundry areas.

2.5 Health Risks.

Exposure to asbestos can result in diseases such as:

- Mesothelioma
- Asbestosis
- Lung cancer
- Pleural plaques.

The risk of developing these diseases is thought to increase with the number of fibres inhaled. However, disease may develop after only brief exposure. Symptoms of these diseases may take 10 to 50 years to develop from the time of asbestos exposure. While some treatments are available, there are currently no known cures.

Asbestosis is usually progressive and does not reverse. It leads to respiratory disability and sometimes death from respiratory failure.

Mesothelioma is also irreversible and always fatal.

2.6 Occupations Most Commonly at Risk of Asbestos Exposure.

Typical but not exhaustive occupations at risk include:

- Demolition, roofing and construction contractors,
- Engineers (heating, ventilation or telecommunications),
- Electricians,
- Painters,
- Decorators,
- Joiners,
- Plumbers and gas fitters,
- Plasterers,
- Builders and building surveyors,
- Shop fitters,
- Fire and burglar alarm installers,
- Maintenance workers,
- Automotive repair workers,
- Asbestos removalists,
- Do-it-yourself home renovators.

3 Asbestos Management Plans Summary.

The following section discusses Asbestos Management Plans and is extracted from the September 2013 issue of Workplace – a publication by WorkCover Tasmania.

3.1 Who Needs an Asbestos Management Plan?

Under the new WHS laws, all workplaces containing (or assumed to contain) asbestos or asbestos containing material (ACM) must create and maintain an up-to-date asbestos management plan.

3.2 Who Doesn't Need an Asbestos Management Plan?

This requirement does not apply to domestic premises.

3.3 What Does an Asbestos Management Plan List?

An asbestos management plan sets out how asbestos or asbestos containing material (ACM) at a workplace will be managed.

It must include:

- The identification of asbestos and ACM; for example a reference to your workplace's asbestos register and the locations of any signs and labels;
- Decisions and reasons for the decisions, about the management of asbestos at your workplace; for example, safe work procedures and control measures;
- Procedures for detailing accidents, incidents or emergencies of asbestos at your workplace ;
- Names of the workers carrying out work involving asbestos and detailing any consultation, information and training responsibilities.

Any naturally occurring asbestos (NOA) on site must also be included in your plan.

3.4 What Else Could an Asbestos Management Plan Include?

Other information in the asbestos management plan will include:

- An outline of how asbestos risks will be controlled, including consideration of appropriate control measures;
- A timetable for managing risks of exposure, for example, priorities and dates for any reviews, circumstances and activities that could affect the timing of action;
- Identification of each person with responsibilities under the asbestos management plan and the person's responsibilities;
- Procedures, including a timetable for reviewing and if necessary, revising the asbestos management plan and asbestos register;
- Air monitoring procedures at the workplace, if required.

3.5 Should the Asbestos Management Plan be Reviewed?

The asbestos management plan is to be reviewed at least every 5 years to ensure that it is current. It should also be reviewed if you:

- Review the asbestos register;
- Review any control measure listed in the plan;
- Remove, disturb, seal or enclose any asbestos in the workplace;
- Determine the plan no longer adequately manages asbestos or ACM at the workplace.

The asbestos management plan is also to be reviewed if a Health and Safety Representative (HSR) requests it because they reasonably believe:

- Any of the reasons listed above do or may affect the health and safety of a member of their work group;
- The plan was not adequately reviewed.

3.6 Who Should Have Access to the Asbestos Management Plan?

The asbestos management plan must be readily accessible to:

- Any worker who has carried out, carries out or intends to carry out work at the workplace and that work involves a risk of exposure to airborne asbestos;
- HSR's who represent these workers;
- A person conducting a business or undertaking (PCBU) that has carried out, carries out or intends to carry out work at the workplace and that work involves a risk of exposure to airborne asbestos;
- A PCBU that has required, requires or intends to require work to be carried out at the workplace and that work involves a risk of exposure to airborne asbestos.

3.7 Where Can Further Information be Accessed?

The new national "Code of Practice CP111: How to manage and control asbestos in the workplace" is available at the WorkSafe website at www.worksafe.tas.gov.au.

The Tasmanian Government also has a dedicated asbestos website that includes information on the management and handling of asbestos at www.asbestos.tas.gov.au.

4 Legislative Requirements, Regulations, Associated Council Policies, Procedures and Guidelines and Various Reference Materials.

This policy should be read in conjunction with applicable, appropriate and associated Legislative Requirements, Regulations, Council Policies, Procedures and Guidelines and applicable Australian Standards.

These include but are not limited to:

- The Local Government Act 1993;
- Local Government (General) Regulations 2015;
- Applicable Australian Standards;
- Risk Management Policies and Procedures;
- Delegations of Authority;
- Developing Your Council's Asbestos Policy – Local Government Shires Association of NSW – November 2012;
- Code of Practice CP111 – How to Manage and Control Asbestos in the Workplace – Workplace Standards December 2012;
- Code of Practice CP113 – How to Safely Remove Asbestos – Workplace Standards December 2012;
- WorkSafe website at www.worksafe.tas.gov.au
- Workplace Standards website at www.workplacestandards.tas.gov.au/resources/guides/asbestos
- Asbestos Diseases Research Institute;
- Asbestos Tasmania website at www.asbestos.tas.gov.au
- Asbestos Awareness website at www.asbestosawareness.com.au
- Compensation Act 1988;
- Asbestos-Related Diseases (Occupational Exposure) Compensation Act 2011;
- Asbestos-Related Diseases (Occupational Exposure) Compensation Regulations 2011;
- Building Act 2000;
- Building Regulations 2004;
- Litter Act 2007;
- Public Health Act 1997;
- Asbestos Management Policy – Department of Education;
- Asbestos Management Plan – Department of Education – December 2012;
- AS4964:2004 Method for the qualitative identification of asbestos in bulk samples;
- Customs website at www.customs.gov.au
- Customs (Prohibited Imports) Regulations 1956;
- Code of Practice – How to Manage WHS Risks;
- Code of Practice – WHS Consultation, Cooperation and Coordination;
- AS/NZS ISO/IEC 17020:2000 General Criteria for the operation of various types of bodies performing inspections for surveying asbestos;
- AS/NZS 1715-1994 Selection, Use and Maintenance of Respiratory Protective Devices;
- Dangerous Substances (Safe Handling) Act 2005;
- Environmental Management and Pollution Control Act 1994;
- Environmental Management and Pollution Control (Controlled Waste Tracking) Regulations 2010;
- Environmental Management and Pollution Control (Waste Management) Regulations 2010

5 Glossary of Terms.

This Policy.

2013-19 Asbestos Policy

Council.

Central Highlands Council

Council Officer.

Council Officer shall mean any Council employee requested to carry out the particular function discussed regardless as to whether they have been formally delegated to do so or not.

Senior Council Officer.

Senior Council Officer shall mean the General Manager, Manager Finance and Administration, Works and Services Manager, Manager Development and Environmental Services and their delegates.

Airborne Asbestos.

Any fibres of asbestos small enough to be made airborne. For the purposes of monitoring airborne asbestos fibres, only respirable fibres are counted.

Asbestos.

The asbestiform varieties of mineral silicates belonging to the serpentile or amphibole groups of rock-forming minerals, including actinolite asbestos, grunerite (or amosite) asbestos (brown), anthophyllite asbestos, chrysotile asbestos (white), crocidolite asbestos (blue) and tremolite asbestos.

Asbestos Containing Material (ACM).

Any material or thing that, as part of its design, contains asbestos.

Asbestos Contaminated Dust or Debris (ACD).

Dust or debris that has settled within a workplace and is (or assumed to be) contaminated with asbestos.

Asbestos Related Work.

Work involving asbestos (other than asbestos removal work to which Part 8.7 of the WHS Regulations applies) that is permitted under the exceptions set out in Regulation 419(3), (4) and (5).

Asbestos Removalist.

A person conducting a business or undertaking who carries out asbestos removal work.

Asbestos Removal Work.

Refers to:

- Work involving the removal of asbestos or ACM;
- Class A asbestos removal work or Class B asbestos removal work as outlined in Part 8.10 of the WHS Regulations.

Competent Person.

A person who has acquired, through training, qualification or experience, the knowledge and skills to carry out the task.

Exposure Standard.

Exposure standard for asbestos is a respirable fibre level of 0.1 fibres/ml of air measured in a person's breathing zone and expressed as a time weighted average fibre concentration calculated over an eight hour working day and measured over a minimum of four hours in accordance with:

- The Membrane Filter Method;
- A method determined by the relevant regulator.

Friable Asbestos.

Material that is in a powder form or that can be crumbled, pulverised or reduced to a powder by hand when dry, and contains asbestos.

GHS.

Globally Harmonised System of Classification and Labelling of Chemicals.

In-situ Asbestos.

Asbestos or ACM fixed or installed in a structure, equipment or plant but does not include naturally occurring asbestos.

NATA – Accredited Laboratory.

A testing laboratory accredited by the National Association of Testing Authorities (NATA) Australia, or recognised by NATA either solely or with someone else.

Naturally Occurring Asbestos (NOA).

The natural geological occurrence of asbestos minerals found in association with geological deposits including rock, sediment or soil.

Non-Friable Asbestos.

Material containing asbestos that is not friable asbestos, including material containing asbestos fibres reinforced with a bonding compound.

Respirable Asbestos.

An asbestos fibre that:

- Is less than 3 microns wide;
- Is more than 5 microns long;
- Has a length to width ratio of more than 3:1.

PCBU

Person conducting a business or undertaking.

HSR.

Health and Safety Representative.

AMP.

Asset Management Plan.

Amosite.

Brown asbestos fibre.

Bonded.

Material where the asbestos fibres are bound by cement, vinyl, resin or other similar material matrix.

Chrysotile.

White asbestos fibre. Generally the most commonly used asbestos type.

Crocidolite.

Blue asbestos fibre.

Environmental Consultant.

A qualified and/or experienced health and safety consultant engaged to provide advice on asbestos and to recommend management of asbestos-containing materials.

Good Condition.

Showing no, or very minor, signs of damage and/or deterioration of material.

Fair Condition.

Showing small amounts of damage and/or deterioration of material.

Fibrous Cement.

Bonded building material typically containing asbestos fibres. Trade names include Super Six, Hardiflex, Hardiplank and Villaboard.

Hazardous Materials.

Building materials that include asbestos, polychlorinated biphenols (PCB's), synthetic mineral fibres (SMF's) and lead based paints.

High Risk.

Asbestos materials that pose a high health risk to personnel or the public in the area of the material – there is a high potential for the material to release asbestos fibres, if disturbed.

JSA.

Job Safety Analysis – is a method that can be used to identify, analyse and record the steps involved in performing a specific job, the existing or potential safety and health hazards associated with each step and the recommended action(s)/procedure(s) that will eliminate or reduce these hazards and the risk of a workplace injury or illness.

Low Risk.

Asbestos materials that pose a low health risk to personnel, employees and the general public providing they remain undisturbed.

Medium Risk.

Asbestos materials that pose a moderate risk to people in the area – there is a medium potential for the material to release asbestos fibres, if disturbed.

Permit to Work.

Form to be completed by Contractor acknowledging presence of asbestos materials in work area identified in register prior to commencing work. Contractor to indicate control measures to be used.

Poor Condition.

Showing a large amount of damage or deterioration or that material is unserviceable for its intended use.

Site Manager.

A site manager is responsible for the care and maintenance of buildings and property. They also may be in charge of cleaning, grounds keeping and security. Site Managers must ensure the grounds and buildings are secure and safe for visitors and residents.

Safe Work Method Statement (SWMS).

A Safe Work Method Statement (SWMS) is a document that lists the types of high risk construction work being done, states the health and safety hazards and risks arising from that work, describes how the risks will be controlled and describes how the risk control measures will be put in place.

Visitor's Register.

Each visitor to a Council site is to sign a Visitors Register upon arrival and departure. This register also serves as an acknowledgement that the visitor has sighted Council's Asbestos Policy and Asbestos Register for the site. A copy of a Visitors Register is attached as Appendix A.

6 General Provisions of this Policy.

6.1 What are the Prohibitions on Asbestos in the Workplace?

Regulation 419 – A person conduction a business or undertaking (PCBU) must not carry out or direct or allow a worker to carry out work involving asbestos if that work involves manufacturing, supplying, transporting, storing, removing, using, installing, handling, treating, disposing of or disturbing asbestos or ACM, except in prescribed circumstances.

Note: The prohibition on the supply of asbestos also prohibits the sale of asbestos or ACM.

6.1.1 General Considerations.

Work involving asbestos-contaminated soil is not prohibited as long as a competent person has determined the soil does not contain any visible ACM or friable asbestos. If friable asbestos is visible, it should not contain more than trace levels of asbestos determined in accordance with AS4964:2004 Method for the qualitative identification of asbestos in bulk samples.

The management of naturally occurring asbestos (NOA) that stays in its natural state is not prohibited if managed in accordance with an asbestos management plan.

Although the ultimate goal of this prohibition is for all workplaces to be free of asbestos, it is only when these materials are being replaced or where they present a health risk that non-asbestos alternatives must be used. Caution needs to be taken when working with buildings constructed prior to 1990 or newer buildings that may have used recycled materials and may have reinstated old plant containing ACM gaskets and/or linings.

If asbestos or ACM is identified in a workplace and demolition or refurbishment work is going to be carried out, the asbestos or ACM must be removed if it is likely to be disturbed before the work starts. If other maintenance or service work is to be carried out at the workplace, removal of asbestos should be considered as a control measure.

Where removal is not reasonably practicable, other control measures must be implemented to minimise exposure, including encapsulation or sealing.

In addition to the prohibition, there is also a restriction on who can remove asbestos. Asbestos removalists and their workers must be competent to carry out asbestos removal work and, except in limited circumstances, must be licences. Further details on who can remove asbestos can be found in the WHS Regulations and the Code of Practice: How to Safely Remove Asbestos.

6.1.2 Prohibitions on the Import of Plant and Other Materials that Contain Asbestos.

The importation of asbestos or materials containing asbestos into Australia is generally prohibited under the Customs (Prohibited Imports) Regulations 1956 (Customs PI Regulations).

If plant or other materials are imported from countries where asbestos in yet prohibited, a quality assurance system should be put in place to ensure they do not contain asbestos prior to supplying or using it in the workplace.

Further information on importing asbestos or any other customs matter is available on the Customs website, http://www.customs.gov.au.

6.2 Who has Duties to Manage and Control Asbestos or ACM?

The WHS Act requires all persons who conduct a business or undertaking to ensure, so far as is reasonable practicable, that all workers and other persons are not put at risk from work carried out as part of the business or undertaking. The WHS Regulations include specific obligations to manage and control asbestos and ACM at the workplace. These are summarised below:

6.2.1 Control Risk of Exposure.

A PCBU must ensure, so far as is reasonably practicable, that exposure of a person at the workplace to airborne asbestos is eliminated, except in an area that is enclosed to prevent the release of respirable asbestos fibres and negative pressure is used. If this is not reasonably practicable, the exposure must be minimised so far as is reasonably practicable.

A PCBU must also ensure that the exposure standard for asbestos is not exceeded at the workplace.

6.2.2 Health Monitoring.

A PCBU must ensure health monitoring is provided to a worker who is carrying out licensed removal work, other ongoing asbestos removal work or asbestos-related work and there is risk of exposure when carrying out that work.

A PCBU must also ensure the health monitoring is carried out under the supervision of a registered medical practitioner and information as specified in the WHS Regulations is provided to that medical practitioner.

A PCBU must pay all expenses for health monitoring, obtain reports and keep records of all health monitoring.

6.2.3 Training and use of Equipment.

A PCBU must ensure that information, training and instruction provided to a worker is suitable and adequate and that it is provided in a way that is readily understandable by any person to whom it is provided.

A PCBU must ensure that if a worker is either carrying out asbestos-related work or may be involved in asbestos removal work, they are trained in the identification and safe handling of asbestos and ACM and the suitable control measures.

For workers who carry out work where NOA is likely to be found, training must be provided on hazards and risks associated with NOA.

6.2.4 Controlling the use of Equipment.

A PCBU must not use, or direct or allow a worker to use, certain equipment on asbestos and ACM.

6.2.5 Asbestos-Related Work.

A PCBU must, if there is uncertainty as to whether work is asbestos-related work, assume asbestos is present or arrange for an analysis of a sample to be undertaken to determine if asbestos or ACM is present.

A PCBU must also:

- Give information as specified in Regulation 480 of the WHS Regulations to a person who is likely to be engaged to carry out asbestos-related work.
- Ensure the asbestos-related work area is separated from other work areas at the workplace, signs are used to indicate where the asbestos-related is being carried out and barricades are used to delineate the asbestos-related work area.
- Ensure a competent person carries out air monitoring of the work area if there is uncertainty as to whether the exposure standard is likely to be exceeded.
- Ensure that decontamination facilities (including containers and labels labelled in accordance with the GHS) are available when asbestos-related work is being carried out.
- Ensure that asbestos waste is contained and labelled in accordance with the GHS before it is removed and is disposed of as soon as practicable.
- Ensure that where PPE is used and contaminated with asbestos, such PPE is sealed, decontaminated, labelled and disposed of in accordance with the WHS Regulations. If this is not reasonably practicable, the PPE must be laundered in accordance with the WHS Regulations.
- PPE that is not clothing and cannot be disposed of must be decontaminated and kept in a sealed container until it is reused for the purposes of asbestos-related work.

6.2.6 Identifying or Assuming Asbestos or ACM.

A PCBU with management or control of a workplace must ensure , so far as is reasonably practicable, that all asbestos or ACM at the workplace is identified by a competent person or assume its presence.

6.2.7 Indicating Presence and Location.

A PCBU with management or control of a workplace must also ensure the presence and location of asbestos or ACM identified (or assumed to be identified) at the workplace is clearly indicated (by a label if reasonably practicable).

6.2.8 Asbestos Register.

A PCBU with management or control of a workplace must also ensure an asbestos register is prepared, maintained, reviewed and kept at the workplace. It must be readily available to workers, their HSR's and other persons.

Contractors or Visitors working in or visiting areas where asbestos has been identified or assumed to be identified are to sign a visitor's book acknowledging that they have sighted the asbestos register and the asbestos policy.

A copy of a visitor's register is included as Appendix A.

Staff should also sign the asbestos register at least annually, or whenever the register is altered, to acknowledge that they have been made aware of the location of identified or assumed identified locations of asbestos within the workplace or at Council properties.

A copy of the Asbestos Register should be readily available and accessible at the worksite or office for ease of inspection by Contractors or Visitors.

They must also ensure that when management or control of the workplace is relinquished, a copy of the asbestos register is given to the person assuming management or control.

6.2.9 Asbestos Management Plan.

A PCBU with management or control of a workplace must, where asbestos has been identified at the workplace, ensure an asbestos management plan is prepared, maintained and reviewed. It must be accessible to workers, their HSR's and other persons.

6.2.10 Naturally Occurring Asbestos (NOA).

A PCBU with management or control of a workplace must also manage the risks associated with NOA at the workplace and where identified at the workplace or likely to be present, ensure that a written asbestos management plan is prepared, maintained and reviewed.

6.2.11 Management or Control of a Workplace Demolition and Refurbishment Work.

A PCBU with management or control of a workplace:

- Prior to demolition or refurbishment work starting, must review the asbestos register and ensure all asbestos that is likely to be disturbed is identified and removed so far as is reasonably practicable.
- Must provide a copy of the asbestos register to the person carrying out the demolition or refurbishment work before the work commences.
- Must, if an emergency occurs and a structure or plant is to be demolished, ensure that before the demolition occurs there is a procedure to reduce the risk of exposure to asbestos below the exposure standard and notify the regulator about the emergency.

6.2.12 Carrying Out Demolition and Refurbishment Work.

A PCBU carrying out demolition or refurbishment work, must, prior to the demolition or refurbishment work being carried out:

- Obtain a copy of the asbestos register for the workplace from the person with management or control before the work commences.
- If an asbestos register is not available, ensure the structure or plant to be demolished or refurbished has been inspected by a competent person to determine if any asbestos or ACM is fixed to or installed (or assumed its presence).
- Where asbestos is determined to be fixed to or installed, tell the occupier, owner (if at a domestic premises) or the person with management or control in any other case.
- Ensure asbestos at domestic premises that is likely to be disturbed by the demolition or refurbishment is identified and if reasonably practicably, removed before the work starts.
- If an emergency occurs at domestic premises where asbestos is identified (or assumed) and it must be demolished, ensure there is a procedure to reduce the risk of the exposure to asbestos to below the exposure standard and notify the regulator about the emergency.

6.3 What is involved in Managing Risks?

Regulation 420 – A PCBU must ensure, so far as is reasonably practicable, exposure of a person at the workplace to airborne asbestos is eliminated. If this is not reasonably practicable, the exposure must be minimised so far as is reasonably practicable.

The exposure standard for asbestos must not be exceeded at the workplace.

6.3.1 Risk Management Generally

Managing the risks associated with asbestos involves:

- Identifying asbestos and ACM at the workplace and recording this in the asbestos register.
- Assessing the risk of exposure to airborne asbestos.
- Eliminating or minimising the risks by implementing control measures.
- Reviewing control measures to ensure they are effective.

When choosing the most appropriate control measure, the following hierarchy of controls must be considered:

- Eliminating the risk (for e.g. removing the asbestos).
- Substituting the risk, isolating the risk or applying engineering controls (for e.g. enclosing, encapsulation, sealing or using certain tools).
- Using administrative controls (for example, safe work practices).
- Using PPE.

A combination of these controls may be required in order to adequately manage and control asbestos or ACM.

General guidance on the risk management process is available in the Code of Practice: How to manage Work Health and Safety Risks.

6.3.2 Consulting Workers

Section 47 of the WHS Act requires a PCBU to consult, so far as is reasonably practicable, with workers who carry out work who are (or are likely to be) directly affected by a WHS matter.

Section 48 requires that if the workers are represented by an HSR, the consultation must involve that representative.

6.3.3 Consulting, Cooperating and Coordinating Activities with Other Duty Holders.

Section 46 of the WHS Act requires that PCBU's consult, cooperate and coordinate activities with all other persons who have a WHS duty in relation to the same matter, so far as is reasonably practicable.

Further guidance on consultation is available in the Code of Practice: Work Health and Safety Consultation, Cooperation and Coordination.

6.4 Identifying if Asbestos or ACM is at the Workplace.

Regulation 422 states that a person with management or control of a workplace must ensure asbestos or ACM at the workplace is identified by a competent person.

If the person with management or control of the workplace assumes that asbestos or ACM is present, or if they have reasonable grounds to believe that asbestos is not present, a competent person does not need to be engaged to make this decision.

6.4.1 Who can be a Competent Person?

The WHS Regulations define a competent person to be someone who has acquired knowledge and skills to carry out the task through training, a qualification or experience. This may mean that the competent person who can identify asbestos is:

- Trained to handle and take asbestos samples, have the knowledge and experience to identify suspected asbestos and be able to determine risk and controls measures.
- Familiar with building and construction practices to determine where asbestos is likely to be present.
- Able to determine that material may be friable or non-friable asbestos and evaluate its condition.

There may be a person within the business that is competent to identify asbestos. If there is not, an external competent person should be engaged. Persons who may be considered to be competent in the identification of asbestos include:

- Occupational hygienists who have experience with asbestos.
- Licensed asbestos assessors.
- Asbestos removal supervisors.
- Individuals who have a statement of attainment in the unit competency for asbestos assessors.
- A person working for an organisation accredited by NATA under AS/NZS ISO/IEC 17020:2000 General criteria for the operation of various types of bodies performing inspection for surveying asbestos.

6.4.2 Factors to Consider When identifying Asbestos.

The person who is carrying out the task of identifying asbestos should have all relevant information so they can correctly identify where asbestos is located in the workplace. For example, obtaining information on the products used in making the building, structure or plant, including building plans, design specifications and correspondence with builders and plant manufacturers. Consulting Workers in the workplace may also be able to assist the person with this task.

6.5 Assuming Asbestos or ACM is Present.

Regulation 422 provides that a person with management or control of a workplace must:

- Assume the material is asbestos or ACM if it cannot be identified but a competent person reasonably believes it is asbestos or ACM, and
- Assume asbestos is present if part of the workforce is inaccessible and it is likely to contain asbestos or ACM.

It is not necessary to engage a competent person to identify asbestos if the person with management or control of the workplace assumes that asbestos is present or if that person has reasonable grounds to believe that asbestos is not present.

6.6 Arranging a Sample to Identify Asbestos.

Regulation 423 provides that a person with management or control of a workplace may identify asbestos or ACM by arranging for a sample of material at the workplace to be analysed for the presence of asbestos or ACM.

A sample must only be analysed by:

- A NATA-accredited laboratory accredited for the relevant test method.
- A laboratory approved by the Regulator.
- A laboratory operated by the Regulator.

6.7 Indicating the Presence of Asbestos in the Workplace.

Regulation 424 provides that a person with management or control of a workplace must ensure the presence and location of asbestos or ACM identified at the workplace is clearly indicated. If reasonably practicable, the asbestos or ACM must be indicated by a label.

6.7.1 Labels.

If labels can be used, a competent person should determine the number and positions of the labels required. The location of labels should be consistent with the location listed in the asbestos register.

If a risk assessment suggests asbestos may be disturbed or people are likely to be exposed and it is not reasonably practicable to label asbestos directly, a prominent warning sign must be posted in its immediate vicinity. For example, if floor tiles have been identified as containing asbestos, an appropriate warning sign may be displayed on an adjacent wall.

6.7.2 Warning Signs.

All warning signs should comply with AS 1319 Safety Signs for the Occupational Environment.

Any areas of a workplace that contain asbestos, including plant, equipment and components, should be signposted with warning signs to ensure the asbestos is not unknowingly disturbed without the correct precautions being taken. These signs should be waterproof, constructed of light-weight material and adequately secured. Signs should be placed at all the main entrances to the work areas where asbestos is present.

Where direct marking of asbestos is not possible, identifying the presence and location of asbestos to workers such as plumbers, electricians and carpenters before they commence work may be achieved by implementing a permit-to-work system. The presence and location of the asbestos should be entered on site plans and the asbestos register and be accessible to all workers to ensure they are aware of the presence of asbestos.

6.8 Assessing the Risk of Exposure.

If asbestos or ACM is in good condition and left undisturbed, it is unlikely that airborne asbestos will be released into the air and the risk to health is extremely low. It is usually safer to leave it and review its condition over time. However, if the asbestos or ACM has deteriorated, has been disturbed, or if asbestos-contaminated dust is present, the likelihood that airborne asbestos will be released into the air is increased.

6.8.1 Likelihood of Airborne Fibres.

The following list ranks different types of asbestos according to the likelihood that airborne asbestos can be released into the air if it has deteriorated or been disturbed. The potential risk to health is greater for items higher up the list if people are exposed to airborne asbestos, but any of the materials listed can produce asbestos fibres if they are disturbed.

- ACD (including dust left in place after past asbestos removal).
- Sprayed (limpet) coatings/loose fill.
- Lagging and packings (that are not enclosed).
- Asbestos insulating board.
- Rope and gaskets.
- Millboard and paper.
- Asbestos cement.
- Floor tiles, mastic and roof felt.
- Decorative paints and plasters.

6.9 Asbestos Register.

Regulation 425 provides that a person with management or control of a workplace must ensure an asbestos register is prepared and kept at the workplace. The asbestos register must be maintained to ensure the information in the register is current.

Note: An asbestos register is not required to be prepared when:

- The workplace is a building that was constructed after 31 December 2003, and
- No asbestos has been identified at the workplace, and
- No asbestos is likely to be present at the workplace from time to time.

6.9.1 What is an Asbestos Register?

The asbestos register is a document that lists all identified (or assumed) asbestos in a workplace. The asbestos register must:

- Record any asbestos or ACM that has been identified or is likely to be present at the workplace from time to time. This would include:
    - The date on which the asbestos or ACM was identified.
    - The location, type and condition of the asbestos; or
- State that no asbestos or ACM is identified at the workplace if the person knows that no asbestos or ACM is identified or is likely to be present from time to time at the workplace.

A comprehensive asbestos register may also include:

- Details of any asbestos assumed to be in the workplace.
- Results of any analysis that confirms a material at the workplace is or is not asbestos.
- Dates when the identification was carried out.
- Details of inaccessible areas.

It may also be useful to attach photographs or drawings to visually show the location of the asbestos or ACM in the workplace.

6.9.2 What if an Asbestos Register Already Exists at the Workplace?

If an asbestos register already exists at the workplace there is no need to create another one. The existing register can be reviewed and revised.

PCBU's who are carrying out or intend to carry out work at a workplace, should obtain the current asbestos register and identify any asbestos or ACM that they have management or control of (for example, asbestos in items of plant). The person with management or control of the workplace should be advised if any asbestos or ACM is identified and not included in the asbestos register for the workplace.

If workers consider that the work they are about to do will disturb asbestos, they should talk to the person with management and control of the workplace or their HSR.

6.9.3 Where Asbestos is Only Temporarily in the Workplace.

In some cases it may not be necessary to include asbestos or ACM that is only temporarily present in the workplace. For example, if plant contains asbestos is being repaired at the workplace but it is only there for a short period while being repaired, it does not need to be included in the asbestos register. However, if plant is often at the workplace it would be important to include this in the asbestos register. Note that where work involving asbestos is carried out, there are requirements to ensure the safety of the worker.

6.9.4 Where there is no Asbestos Register at the Workplace.

An asbestos register is not required if a workplace has been constructed after 31 December 2003 or if no asbestos has been identified.

If there is no asbestos register at the workplace but asbestos is identified during the course of any work being carried out, the person with management or control of the workplace should be advised who must then identify it (or ensure a competent person identifies it) and prepare a register.

As there will be no asbestos register at a domestic premise, the homeowner or landlord must be advised if asbestos is identified and appropriate action taken.

6.10 Reviewing and Revising an Asbestos Register.

Regulation 426 provides that a person with management or control of a workplace must ensure an asbestos register is reviewed and where necessary revised by a competent person if:

- The asbestos management plan is reviewed.
- Further asbestos or ACM is identified at the workplace.
- Asbestos is removed from or disturbed, sealed or enclosed at the workplace.

The register should be reviewed at least once every five years to ensure it is kept up-to-date.

When reviewing the asbestos register, the person should carry out a visual inspection of the asbestos and ACM listed to determine its condition and revise the asbestos register as appropriate. Previous asbestos registers and records relating to asbestos removal jobs, for instance clearance certificates, can assist in identifying all asbestos and ACM in the workplace.

6.11 Accessing an Asbestos Register.

Regulation 427 provides that a person with management or control of the workplace must ensure the asbestos register is readily accessible to:

- A worker who has carried out, carries out or intends to carry out work at the workplace.
- HSR's who represent workers that carry out or intend to carry out work at the workplace.
- A PCBU who has carried out, carries out or intends to carry out work at the workplace.
- A PCBU who has required, requires or intends to require work to be carried out at the workplace.

6.12 Asbestos Management Plan.

Regulation 429 provides that a person with management or control of a workplace must ensure a written asbestos management plan is prepared for the workplace if asbestos or ACM has been identified or assumed present or is likely to be present from time to time at the workplace.

The asbestos management plan must be maintained to ensure the information is up-to-date.

This requirement does not apply to domestic premises.

6.12.1 What is an Asbestos Management Plan?

An asbestos management plan sets out how asbestos or ACM that is identified at the workplace will be managed, for example what, when and how it is going to be done.

An asbestos management must include:

- The identification of asbestos and ACM, for example a reference or link to the asbestos register for the workplace, and the locations of signs and labels.
- Decisions, and reasons for the decisions, about the management of asbestos at the workplace, for example safe work procedures and control measures.
- Procedures for detailing accidents, incidents or emergencies of asbestos at the workplace.
- Workers carrying out work involving asbestos, for example consultation, information and training responsibilities.

Other information that may be included in the asbestos management plan is:

- An outline of how asbestos risks will be controlled, including consideration of appropriate control measures.
- A timetable for managing risks of exposure, for example priorities and dates for any reviews, circumstances and activities that could affect the timing of action.
- Identification of each person with responsibilities under the asbestos management plan and the person's responsibilities.
- Procedures, including a timetable for reviewing and, if necessary, revising the asbestos management plan and asbestos register.

- Air monitoring procedures at the workplace, if required.

6.12.2 Reviewing an Asbestos Management Plan.

Regulation 430 provides that a person with management or control of the workplace must ensure the asbestos management plan is reviewed and, if necessary, revised at least once every five years or when:

- There is a review of the asbestos register or a control measure.
- Asbestos is removed from or disturbed, sealed or enclosed at the workplace.
- The plan is no longer adequate for managing asbestos or ACM at the workplace.
- A HSR requests a review if they reasonably believe that any of the matters listed in the above points affects or may affect the health and safety of a member of their work group and the asbestos management plan was not adequately reviewed.

6.12.3 Accessing an Asbestos Management Plan.

Regulation 429 provides that a person with management or control of the workplace must ensure the asbestos management plan is readily accessible to:

- A worker who has carried out, carries out or intends to carry out work at the workplace.
- HSR's who represent workers that carry out or intend to carry out work at the workplace.
- A PCBU who has carried out, carries out or intends to carry out work at the workplace.
- A PCBU who has required, requires or intends to require work to be carried out at the workplace.

The asbestos management plan should be kept at the workplace to ensure it is accessible.

6.12.4 Example of an Asbestos Management Plan.

An excellent example of an Asbestos Management Plan is available from the Department of Education's website as:

- Asbestos Management Plan
- Department of Education
- December 2012
- Version 1 19 December 2012
- Revision 1 N/a

It is strongly recommended that this publication be downloaded, read and retained for reference. Extracts from it should be used appropriately in conjunction with Council's Asbestos Policy.

6.13 Managing Other Asbestos-Related Risks.

The following sub-sections, 6.13.1 to 6.13.8, discuss the requirements to manage other asbestos-related risks.

6.13.1 Naturally Occurring Asbestos.

Regulations 431-434 provide that a person with management or control of a workplace must manage the risks associated with naturally occurring asbestos (NOA) at the workplace.

If NOA is identified at the workplace or is likely to be present from time to time, a written asbestos management plan must be prepared and maintained to ensure the information is up-to-date.

In the majority of workplaces, the asbestos that is encountered and poses a risk to health and safety will be found in manufactured products. However, some workplaces may have to deal with asbestos in its natural state. NOA may be encountered in road building, site and construction work, and other excavation activities. Asbestos may occur in veins within rock formations.

6.13.2 Managing NOA.

Ongoing management of NOA may be determined with the aid of an air monitoring program to assess asbestos exposure levels and specific risk control measures.

The person with management or control of a workplace must ensure the release of airborne asbestos in minimised. This can be done by:

- Wetting surfaces to reduce the dust levels.
- Suppressing, containing and extracting dust in processing operations (water sprays or local exhaust at transfer points and vibrating screens).
- Using wet drilling or other approved in-hole dust suppression.
- Preventing the spread of contamination by using wash down facilities.
- Providing information to and training and supervision of all workers potentially at risk.
- Using PPE where indicated.

6.13.3 Contaminated Sites.

Sites contaminated with asbestos become a workplace when work is carried out there. The WHS Regulations require that, where asbestos is identified as contaminating a workplace, a register and asbestos management plan be created for the site.

The management and remediation of sites contaminated with asbestos from illegal dumping and demolition is a specialised task. In some instances, site remediation may entail removal of asbestos and ACM from the site; in other cases this may not be practicable and other management strategies should be used. Engaging specialists who may include asbestos removalists is highly recommended for all but the most minor of non-friable contaminations.

6.13.4 Demolition and Refurbishment Work.

This section applies to the demolition or refurbishment of a structure or plant constructed or installed before 31 December 2003.

Regulation 447-457 provides that prior to any demolition or refurbishment work being carried out, a person with management and control of a workplace must:

- Review the asbestos register.
- Provide a copy of the asbestos register to the person carrying out the demolition or refurbishment work.
- Ensure asbestos that is likely to be disturbed is identified and, so far as is reasonably practicable, removed.

The PCBU who will carry out demolition or refurbishment at a workplace must obtain a copy of the asbestos register before they commence the work.

6.13.5 Demolition and Refurbishment at Domestic Premises.

When a person has been engaged to conduct demolition or refurbishment at a domestic premise, it becomes the workplace of that person. Consequently, that person must identify and if necessary, remove asbestos before work commences. The WHS Regulations place no duties on the homeowner.

6.13.6 Asbestos-Related Work.

Regulation 478-484 provides that while work with asbestos is generally prohibited, the WHS Regulations allow work to occur on asbestos in certain circumstances: this is referred to as asbestos-related work.

When undertaking asbestos-related work activities, the WHS Regulations require that it only be performed in accordance with the following requirements:

- Any worker undertaking asbestos-related work must be informed of the health risks of exposure to asbestos and that they will need to undergo health monitoring. Further information can be found in *Guidance: Health Monitoring.*
- A competent person carries out air monitoring of the work area where asbestos-related work is being carried out if there is uncertainty as to whether the exposure standard is likely to be exceeded.
- Any asbestos that may be encountered by workers undertaking asbestos-related work must be identified, and if it is not possible to identify, it must be assumed asbestos is present.
- The area in which asbestos-related work is undertaken is separate from the rest of the workplace, so far as is possible.
- The asbestos work area must be signed and barricaded to ensure that other workers do not enter the area.
- Facilities must be provided to allow for the decontamination of workers, equipment and the items worked upon.
- Anything removed from the work area must be decontaminated before it is removed from the work area.
- If material contaminated with asbestos is to be removed from the work area, it must be sealed within a container, which is decontaminated and labelled to indicate the presence of the asbestos and disposed of at a licensed disposal facility as soon as is reasonably practicable.
- If PPE used in asbestos-related work is to be removed from the work area for disposal, it must also be sealed within a container, which is decontaminated and labelled to indicate the presence of the asbestos in accordance with the WHS Regulations and disposed of at a licensed waste facility as soon as reasonably practicable.

6.13.7 Managing Risks Associated with Asbestos-Related Work.

If there is uncertainty as to whether asbestos is present or used in a certain activity at the workplace, the person with management or control of the workplace must assume asbestos is present and treat the activity as asbestos-related work or arrange for a sample to be analysed to determine if asbestos is present.

If asbestos is identified or assumed to be present, it is essential that the asbestos register be obtained and a decision made as to whether work can be done without disturbing the asbestos.

It is also essential to ensure all people carrying out the work have the appropriate training (refer to Section 6.3 of the Code), correct tools (Section 6.4 of the Code), PPE including clothing, decontamination materials, labels and signs ready at the workplace before any work commences that may disturb the asbestos and to minimise the number of people in the area.

6.13.8 Control Measures for Asbestos-Related Work.

Whatever the control method used, it should be effective in making all maintenance workers aware of the presence of asbestos and preventing any work activity that might expose them, or others nearby to airborne asbestos. Particular attention should be paid to controlling work activities that affect inaccessible areas listed in the asbestos register, such as wall cavities and ceiling spaces.

Control measures include the following:

- Eliminate the risk by not conducting the work.
- Minimise the risk by using either an isolation control or a combination of these.
- If the risk is still present and attempts have been made to minimise the risk to health, so far as is reasonably practicable, through elimination, isolation and engineering controls, administrative controls can be implemented.
- If a risk to health still remains after the higher order control measures have been implemented, PPE must be used to supplement higher order controls. Although PPE can be effective in controlling the risk from airborne asbestos fibres, the successful implementation and maintenance of this control measure requires further action and resources including:
    - The correct selection of appropriate PPE.
    - The issuing of PPE to each individual.
    - Training and supervision.
    - Maintenance of PPE.
    - Employee compliance and support for the system.

6.14 Disposing of Asbestos or ACM.

There are additional responsibilities related to the removal and disposal of asbestos, which are detailed in the Code of Practice: How to safely Remove Asbestos.

Asbestos waste must be transported and disposed of in accordance with the relevant state or territory Environment Protection Authority (EPA) requirements. Asbestos waste can only be disposed of at a site licensed by the EPA and it must never be disposed of in the general waste system.

6.15 Managing Exposure to Asbestos or ACM.

The following sub-sections, 6.15.1 to 6.15.4, discuss the requirements to manage exposure to Asbestos or ACM.

6.15.1 Measuring the Exposure Standard.

Airborne respirable fibre concentrations can be estimated using available data or past experience. In cases of doubt, it may be necessary to confirm the estimates by measurement using the *Guidance Note on the Membrane Filter method for Estimating Airborne Asbestos Fibres ((NOHSC: 3003 (2005))*.

6.15.2 Health Monitoring.

Regulation 435-444 provides that a PCBU must ensure health monitoring is provided to a worker if they are carrying out licensed asbestos removal work, other ongoing asbestos removal work or asbestos-related work and are at risk of exposure to asbestos when carrying out the work.

Health monitoring reports must be kept as confidential records for at least 40 years after the record is made and identified as a formal record for the particular worker. The report and results must not be disclosed to anyone unless the worker has provided their written consent. However, if the person was releasing the record under a duty of professional confidentiality, the worker's written consent is not required.

6.15.3 Training Workers about Asbestos or ACM.

Regulation 39 provides that a PCBU must ensure that information, training and instruction provided to a worker are suitable and adequate, having regard to:

- The nature of the work carried out by the worker.
- The nature of the risks associated with the work at the time the information, training or instruction is provided.
- The control measures implemented.

Regulation 445 provides that a PCBU must ensure workers who they reasonably believe may be involved in asbestos removal work in the workplace or the carrying out of asbestos-related work are trained in the identification, safe handling and suitable control measures for asbestos and ACM.

6.15.4 Limited Use of Equipment.

Regulation 446 provides that a PCBU must not use, or direct or allow a worker to use, specific equipment on asbestos or ACM unless the use of the equipment is controlled.

High-pressure water spray and compressed air must not be used on asbestos or ACM. However, high-pressure water spray can be used for firefighting or fire protection. Power tools, brooms and any other equipment or tool that may release airborne asbestos in the workplace may only be used if it is controlled by it being:

- Enclosed.
- Designed to capture or suppress airborne asbestos.
- Used in a way that is designed to capture or suppress airborne asbestos safely.

6.16 Controlling the Risks.

To eliminate risk of exposure, or if this is not reasonably practicable, minimising them so far as is reasonably practicable, a risk management process should be followed that involves identifying whether asbestos or ACM is at a workplace and including them in the asbestos register, assessing the risk of exposure and then implementing appropriate control measures.

6.16.1 Removing Asbestos.

The ultimate goal is to have a workplace free from asbestos. Removal may be the most appropriate way to achieve this.

If it is not reasonably practicable to remove asbestos, then other control measures must be implemented to ensure people are not exposed to airborne asbestos, including either enclosing or sealing the asbestos.

6.16.2 Enclosing Asbestos.

Where it is not reasonably practicable to remove asbestos, the preferred alternative control measure is enclosure.

Enclosure is the creation of a structure built around the asbestos so that it is completely covered to prevent exposure of the asbestos to air and other substances.

Enclosure should only be used on non-friable asbestos where removal is not reasonably practical and where the asbestos is at risk of damage from work activities.

6.16.3 Encapsulation and Sealing Asbestos.

If the asbestos cannot be removed or enclosed, encapsulation or sealing is the next appropriate control measure.

6.16.4 What are Encapsulation and Sealing?

Asbestos may be encapsulated in a resilient matrix such as reinforced plastics, vinyls, resins, mastics, bitumen, flexible plasters and cement. There is little opportunity to release airborne asbestos unless the matrix is damaged. Although encapsulation has limited application and can create a health risk for workers undertaking the activity, it is used when it would create a greater risk to remove the asbestos.

Sealing is the process of covering the surface of the material with a protective coating over the asbestos to prevent exposure to airborne asbestos. Sealing asbestos is the least effective method for controlling the release of airborne asbestos. It should only be considered as an interim control while a more effective control such as removing or enclosing can be implemented. It is commonly used for pipe, furnace and boiler insulation. Sealing is inappropriate where the sealed material is likely to suffer mechanical damage (e.g. drilling or sanding).

6.16.5 Tools and Equipment.

Certain equipment must not be used on asbestos. It is therefore important to select the correct equipment to minimise the generation of airborne asbestos.

Manually operated (non-powered) hand tools should be used wherever possible. If they will not provide sufficient physical force to perform the required operation, low-speed, battery-powered tools that are able to be used in conjunction with wet methods for dust control are preferred.

The use of high-pressure water and compressed air is prohibited under WHS Regulations as they can cause asbestos to become friable.

Household vacuum must never be used where asbestos is or may be present, even if they have a HEPA filter.

6.16.6 Safe Work Practices.

It is important that safe work practices are in place when carrying out asbestos work or asbestos-related work. Wherever possible, dry asbestos should not be worked on.

When selecting the best technique to prevent or minimise the generation of airborne asbestos fibres, the work should first be assessed for any electrical hazards that might result from the use of water or other liquids. If an electrical hazard exists, primary consideration should be given to removing the asbestos, rather than relying on dry work methods.

6.16.7 Personal Protective Equipment (PPE).

PPE will need to be used, in combination with other effective control measures, when working with asbestos. The selection and use of PPE should be based on a risk assessment.

If work with asbestos requires the use of other chemicals that are themselves hazardous chemicals, a further risk assessment must be performed. Safety data sheets must be referred to for information on appropriate PPE to use and any other precautions to take when using the chemicals.

6.16.8 Respiratory Protective Equipment (RPE).

In general, the selection of suitable RPE depends on the nature of the asbestos work, the probable maximum concentrations of asbestos fibres that would be encountered in this work and any personal characteristics of the wearer that may affect the facial fit of the respirator (for example, facial hair and glasses).

More comprehensive advice on RPE is provided in the *Code of Practice: How to safely Remove Asbestos.*

6.16.9 Laundering Clothing.

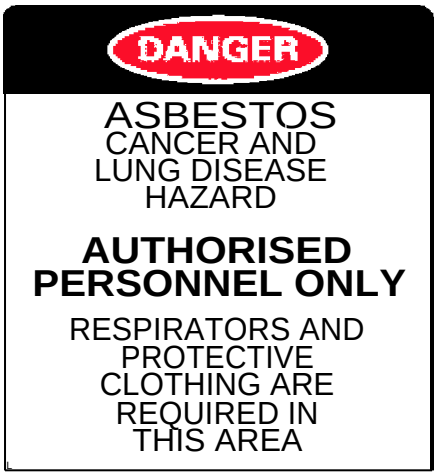
Disposable coveralls should be used as protective clothing unless it is not reasonably practicable to do so. When non-disposable protective clothing is used, the contaminated clothing must be laundered in a suitable laundering facility that is equipped to launder asbestos-contaminated clothing. Contaminated protective clothing must not be laundered in homes. Any clothing worn under coveralls must be disposed of or suitably bagged for laundering as asbestos-contaminated clothing.

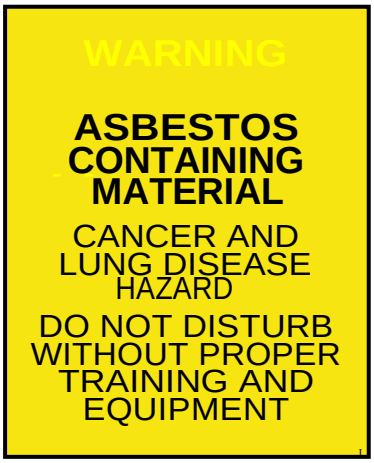
6.16.10 Cleaning Up.

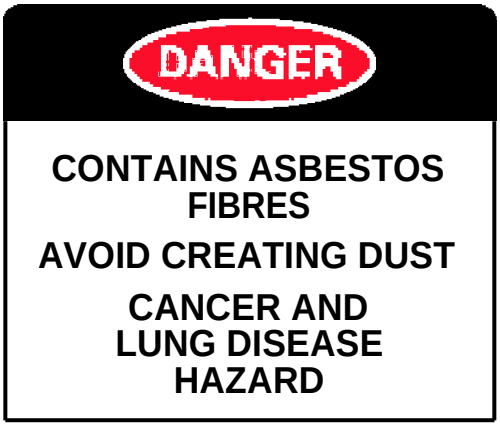
Following any asbestos work carried out, there are requirements to ensure the work area, tools and workers are decontaminated and asbestos waste is disposed of properly. In addition to this, for licensed removal work a clearance certificate will be required before the work area can be reoccupied for ordinary use.

The *Code of Practice: How to Safely Remove Asbestos* provides details on decontamination and waste disposal.

6.17 Examples of Warning Signs and Labels.







6.18 TEMPLATE OF AN ASBESTOS REGISTER

ASBESTOS REGISTER					
Workplace address			Name of Competent Person		
Date of Identification	Type of Asbestos	Is it Friable or Non-Friable?	Condition of Asbestos	Specific Location of Asbestos	Is this an inaccessible area?

6.19 - EXAMPLE OF AN ASBESTOS REGISTER

ASBESTOS REGISTER					
Unit 3A, Trading Estate West, Anytown 9001			**Name of Competent Person** Jim Smith, Site OHS manager (01) 3293 4012		
Date of Identification	**Type of Asbestos**	**Is it Friable or Non-Friable?**	**Condition of Asbestos**	**Specific Location of Asbestos**	
1/2/2011	AC Roof Sheeting	Non-friable	Good, minor deterioration on Western End	Whole Roof to main building	
1/2/2011	Fibro Wall Cladding	Non-friable	Sound condition structurally, paint lifting in some places	Exterior of main Building	.
1/2/2011	Pipe Insulation	Friable	Cracked at bends in pipe	Plant Room Behind boiler for water system	Only accessed by maintenance staff
1/2/2011	Cement Flue	Non-friable	Good condition, coated	Plant Room On top of boiler	Only accessed by maintenance staff
1/2/2011	Floor Tiles	Non-friable	Good condition, tiles under filing cabinet starting to lift	Main office, Asbestos backed vinyl floor tiles	Inaccessible

Working with asbestos friction materials

The risk of exposure to significant amounts of dust that contains asbestos fibres may exist while removing and repairing brakes, clutches and high-temperature gaskets on motor vehicles.

If the following simple controls are applied carefully, it generally should not be necessary to carry out air monitoring in the workshop while servicing vehicle brakes, clutches and cylinder head/exhaust gaskets.

A HEPA-filter industrial vacuum cleaner should be certified by the manufacturer as fit for removal work and can be used to clean all asbestos dust from components and other parts in the immediate vicinity. It may be necessary to purchase or fabricate special hose nozzles to reach difficult areas to ensure components are effectively cleaned of asbestos. Any remaining dust needs to be removed with a wet rag.

A fine spray of water on the dust will dampen it and prevent it being dispersed. The component and parts in the immediate vicinity can then be wiped down with a wet rag. The rag can only be used once. It then needs to be placed in a plastic bag and into an asbestos waste disposal bin. Any spillage onto the workshop floor needs to be wiped up and disposed of in the same way. It is important that only a gentle misting spray is used as a coarse spray will disperse the asbestos fibres into the air.

A respirator certified by the manufacturer as suitable for asbestos dust (for example, a P1 or P2 disposable respirator) needs to be worn during the above cleaning processes.

Compressed air, water hoses and aerosol cans must not be used to clean asbestos dust off components in the open workshop as they will disperse large numbers of fibres into the air.

Personal decontamination should be carried out in accordance with the WHS Regulations and this Code.

Dedicated asbestos-handling area

To minimise risks to other people, the area where asbestos components are cleaned and removed needs to be segregated and in a location where wind or cooling fans etc. will not disturb any dust. All workers must be provided with information and training on asbestos hazards, its presence and the safety procedures that must be followed.

For all removal:

- segregate the vehicle from surrounding removal work areas. Try to have at least three metres separation and avoid windy locations and cooling fans etc.

  Use portable signs to indicate that asbestos removal is going on

  Wear a P1 or P2 disposable respirator

  personal decontamination should be carried out in accordance with the WHS Regulations and this Code.

Brake assembly repairs - vacuum method

- Use a HEPA-filter vacuum cleaner to clean the wheel prior to undoing the wheel nuts.

  Remove the wheel and vacuum any remaining dust on the wheel.

  Vacuum all dust off the brake assembly.

  Use a wet rag to wipe down all parts and remove final traces of dust.

  Vacuum any additional dust that is exposed during disassembly.

  Place the component and rags etc. into a plastic bag, seal or tie it and then place it into a marked plastic-lined disposal bin or skip.

Personal decontamination should be carried out in accordance with the WHS Regulations and this Code.

Brake assembly removal - wet method

- Place a tray or tape plastic sheeting on the floor under the removal area to catch spillage and assist in the clean-up.

  Use a saturated rag to wet down the wheel and wipe off dust prior to removing the wheel nuts.

  Remove the wheel and clean off any remaining dust with the wet rag.

  Use a saturated rag and gentle water mist to thoroughly damp down any dust on the brake assembly.

  Personal decontamination should be carried out in accordance with the WHS Regulations and this Code.

Brake disc pads

- Use a saturated rag to wipe off exposed dust and dust exposed during disassembly. Wipe up any spillage on the floor.

  Place the component and rags etc. into a plastic bag, seal or tie it and then place it into a marked plastic-lined disposal bin or skip.

  Personal decontamination should be carried out in accordance with the WHS Regulations and this Code.

Clutch removal and repairs

- After separating the gearbox from the engine, vacuum/wet-wipe inside the bell housing and around the pressure plate.

  On removal of the pressure plate and clutch plate, vacuum/wet-wipe the flywheel, housing and components; place used rags and removed components in a plastic bag and seal.

  Place this plastic bag into a marked plastic-lined disposal bin or skip.

  Personal decontamination should be carried out in accordance with the WHS Regulations and this Code.

Cylinder head and exhaust gaskets

- If the gasket is damaged during separation of the components, wet it with water to control asbestos fibres.

  Keep the gasket wet and carefully remove it without using power tools.

  Wipe down the joint faces and the immediate area with a wet rag.

  Place the gasket and rag into a plastic bag and seal or tie it.

  Place this plastic bag into a marked plastic-lined disposal bin or skip.

  Personal decontamination should be carried out in accordance with the WHS Regulations and this Code.

Brake shoe

The process of removing asbestos-containing linings from brake shoes and clutch parts has the potential to release large quantities of asbestos fibres. All work involving power tools should be carried out within an enclosure that is fitted with an effective dust extraction and filtration system that will eliminate or minimise the release of airborne asbestos fibres. If components are to be hand-worked, carry out the following procedure:

Undertake the work in a separate area away from other workers, preferably in a purpose-built enclosure.

Thoroughly wet down the component to control dust/fibres.

Wear **PPE and RPE.**

Use local extraction to minimise the spread of dust/fibres.

Control air monitoring must be carried out to determine respirable asbestos fibre exposure levels and the suitability of PPE.

Clean up after removal with a vacuum cleaner and wet rag.

Place waste asbestos into a plastic bag and seal or tie it.

Place this plastic bag into a marked disposal bag, tie or seal it and place the bag into the marked plastic-lined disposal bin or skip (see disposal section below).

Used respirators and overalls should not be worn away from the removal work area and need to be disposed of in the same way as asbestos waste.

Personal decontamination should be carried out in accordance with the WHS Regulations and this Code.

6.21 Recommended Safe Working Practices.

As a first priority, planning for the maintenance of asbestos at the workplace must include consideration of the removal of the asbestos as the most preferred control option. Where removed, products containing asbestos must be replaced with products that do not contain asbestos. Removal of asbestos products must be done in accordance with the *Code of Practice: How to Safely Remove Asbestos.*

Below are some recommended safe working methods that demonstrate how control measures can be used when asbestos is present at the workplace:

- Safe work practice 1 – Drilling for asbestos-containing material

  Safe work practice 2 – Sealing, painting, coating and cleaning of asbestos-cement products

  Safe work practice 3 – Cleaning leaf litter from gutters of asbestos cement roofs

  Safe work practice 4 – Replace cabling in asbestos cement conduits or boxes

  Safe work practice 5 – Working on electrical mounting boards (switchboards) containing asbestos

  Safe work practice 6 – Inspection of asbestos friction materials.

6.22 Some Important Asbestos Do's and Don'ts.

The following comments have been extracted from: http://www.asbestos.tas.gov.au/resources/facts

- Don't panic if you find asbestos.
- Do put safety first when dealing with asbestos.
- Do treat asbestos with respect.
- Don't drill, saw or disturb materials that contain asbestos.
- Do seek advice if you think you've got a problem with asbestos.
- Do keep activities to a minimum in areas having damaged material that may contain asbestos.
- Do take every precaution to avoid damaging asbestos material.
- Do have removal and major repair done by licensed asbestos removalists. It is highly recommended that sampling and minor repair also be done by licensed professionals.
- Do make sure asbestos is correctly identified. If you think that material might contain asbestos, treat it as though it does until you have it checked by an expert.
- Don't risk damaging asbestos. Asbestos is only a danger to health when fibres become airborne and are breathed in.
- Do warn other people. If you know there is asbestos in your home or workplace point it out to anyone who might come into contact with it so they can take precautions. This is particularly important if you ask someone to do repairs or alterations.
- Do check the rules and regulations that apply to the handling, removal and disposal of asbestos.

6.23 Safe Work Practice – Drilling of ACM.

SAFE WORK PRACTICE 1 – DRILLING OF ACM	
The drilling of asbestos cement sheeting can release asbestos fibres into the atmosphere, so precautions must be taken to protect the drill operator and other persons from exposure to these fibres. A hand drill is preferred to a battery-powered drill, because the quantity of fibres is drastically reduced if a hand drill is used.	
Equipment that may be required prior to starting work (in addition to what is needed for the task)	A non-powered hand drill or a low-speed battery-powered drill or drilling equipment. Battery-powered drills should be fitted with a local exhaust ventilation (LEV) dust control hood wherever possible. If an LEV dust control hood cannot be attached and other dust control methods such as pastes and gels are unsuitable then shadow vacuuming techniques should be used Disposable cleaning rags A bucket of water, or more as appropriate, and/or a misting spray bottle Duct tape Sealant Spare PPE A thickened substance such as wallpaper paste, shaving cream or hair gel 200 pm plastic sheeting A suitable asbestos waste container (e.g. 200 pm plastic bags or a drum, bin or skip lined with 200 pm plastic sheeting) Warning signs and/or barrier tape An asbestos vacuum cleaner A sturdy paper, foam or thin metal cup, or similar (for work on overhead surfaces only).
PPE	Protective clothing and RPE (see **AS1715, AS 1716).** It is likely that a class P1 or P2 half face respirator will be adequate for this task, provided the recommended safe work procedure is followed.
Preparing the asbestos work area	If the work is to be carried out at a height, appropriate precautions must be taken to prevent falls. Ensure appropriately marked asbestos waste disposal bags are available. Carry out the work with as few people present as possible. Segregate the asbestos work area to ensure unauthorised personnel are restricted from entry (e.g. close door and/or use warning signs and/or barrier tape at all entry points). The distance for segregation should be determined by a risk assessment. If drilling a roof from outside, segregate the area below. If access is available to the rear of the asbestos cement, segregate this area as well as above. If possible, use plastic sheeting, secured with duct tape, to cover any surface within the asbestos work area that could become contaminated. Ensure there is adequate lighting. Avoid working in windy environments where asbestos fibres can be redistributed. If using a bucket of water, do not resoak used rags in the bucket, as this will contaminate the water. Instead, either fold the rag so a clean surface is exposed or use another rag.
Drilling vertical surfaces	Tape both the point to be drilled and the exit point, if accessible, with a strong adhesive tape such as duct tape to prevent the edges crumbling. Cover the drill entry and exit points (if accessible) on the asbestos with a generous amount of thickened substance. Drill through the paste. Use damp rags to clean off the paste and debris from the wall and drill bit. Dispose of the rags as asbestos waste as they will contain asbestos dust and fibres.

	Seal the cut edges with sealant. If a cable is to be passed through, insert a sleeve to protect the inner edge of the hole.
Drilling overhead horizontal surfaces	Mark the point to be drilled. Drill a hole through the bottom of the cup. Fill or line the inside of the cup with shaving cream, gel or a similar thickened substance. Put the drill bit through the hole in the cup so that the cup encloses the drill bit, and make sure the drill bit extends beyond the lip of the cup. Align the drill bit with the marked point. Ensure the cup is firmly held against the surface to be drilled. Drill through the surface. Remove the drill bit from the cup, ensuring that the cup remains firmly against the surface. Remove the cup from the surface. Use damp rags to clean off the paste and debris from the drill bit. Dispose of the rags as asbestos waste, as they will contain asbestos dust and fibres. Seal the cut edges with sealant. If a cable is to be passed through, insert a sleeve to protect the inner edge of the hole.
Decontarninating the asbestos work area and equipment	Use damp rags to clean the equipment. Carefully roll or fold any plastic sheeting used to cover any surface within the asbestos work area, so as not to spill any dust or debris that has been collected. If necessary, use damp rags and/or an asbestos vacuum cleaner to clean any remaining visibly contaminated sections of the asbestos work area. Place debris, used rags, plastic sheeting and other waste in the asbestos waste bags/container. Wet wipe the external surfaces of the asbestos waste bags/container to remove any adhering dust before they are removed from the asbestos work area.
Personal decontarninatio n should be carried out in a designated area	If disposable coveralls are worn, clean the coveralls while still wearing RPE using a HEPA vacuum, damp rag or fine-water spray. RPE can be cleaned with a wet rag or cloth. While still wearing RPE, remove coveralls, turning them inside-out to entrap any remaining contamination and then Place them into a labelled asbestos waste bag. Remove RPE. If non-disposable, inspect it to ensure it is free from contamination, clean it with a wet rag and store in a clean container. If disposable, cleaning is not required but RPE should be placed in a labelled asbestos waste bag or waste container. Refer to the *Code of Practice: How to Safely Remove Asbestos* for more information.
Clearance procedure	• Visually inspect the asbestos work area to make sure it has been properly cleaned. • Clearance air monitoring is not normally required for this task. • Dispose of all waste as asbestos waste. Refer to the *Code of Practice: How to Safely Remove Asbestos* for more information.

6.24 Safe Work Practice – Sealing, Painting, Coating and Cleaning of Asbestos Cement Products.

SAFE WORK PRACTICE 2 - SEALING, PAINTING, COATING AND CLEANING OF ASBESTOS-CEMENT PRODUCTS	
These tasks should only to be carried out on asbestos that are in good condition. For this reason, the ACM should be thoroughly inspected before starting the work. There is a risk to health if the surface of asbestos cement sheeting is disturbed (e.g. from hail storms and cyclones) or if it has deteriorated as a result of aggressive environmental factors such as pollution. If it is so weathered that its surface is cracked or broken, the asbestos cement matrix may be eroded, increasing the likelihood that asbestos fibres will be released. If treatment is considered essential, a method that does not disturb the matrix should be used. Under no circumstances should asbestos cement products be water blasted or dry sanded in preparation for painting, coating or sealing.	
Equipment that may be required prior to starting work (in addition to what is needed for the task)	Disposable cleaning rags A bucket of water, or more as appropriate, and/or a misting spray bottle Sealant Spare PPE A suitable asbestos waste container Warning signs and/or barrier tape.
PPE	Protective clothing and RPE (see **AS1715, AS 1716).** It is likely that a class P1 or P2 half face respirator will be adequate for this task, provided the recommended safe work procedure is followed. Where paint is to be applied, appropriate respiratory protection to control the paint vapours/mist must also be considered.
Preparing the asbestos work area	If work is being carried out at heights, precautions must be taken to prevent falls. Before starting, assess the asbestos cement for damage. Ensure appropriately marked asbestos waste disposal bags are available. Carry out the work with as few people present as possible. Segregate the asbestos work area to ensure unauthorised personnel are restricted from entry (e.g. close door and/or use warning signs and/or barrier tape at all entry points). The distance for segregation should be determined by a risk assessment. If working at a height, segregate the area below. If possible, use plastic sheeting secured with duct tape to cover any floor surface within the asbestos work area which could become contaminated. This will help to contain any runoff from wet sanding methods. Ensure there is adequate lighting. If using a bucket of water, do not resoak used rags in the bucket, as this will contaminate the water. Instead, either fold the rag so a clean surface is exposed or use another rag. Never use high-pressure water cleaning methods. Never prepare surfaces using dry sanding methods. Where sanding is required, you should consider removing the asbestos and replacing it with a non-asbestos product. Wet sanding methods may be used to prepare the asbestos, provided precautions are taken to ensure all the runoff is captured and filtered, where possible. Wipe dusty surfaces with a damp cloth.
Painting and sealing	When using a spray brush, never use a high-pressure spray to apply the paint. When using a roller, use it lightly to avoid abrasion or other damage.
Decontaminating the asbestos work area and equipment	Use damp rags to clean the equipment. If required, use damp rags and/or an asbestos vacuum cleaner to clean the asbestos work area. Place debris, used rags, plastic sheeting and other waste in the asbestos waste bags/container. Wet wipe the external surfaces of the asbestos waste bags/container to remove any

	adhering dust before they are removed from the asbestos work area.
Personal decontamination should be carried out in a designated area	If disposable coveralls are worn, clean the coveralls while still wearing RPE using a HEPA vacuum, damp rag or fine-water spray. RPE can be cleaned with a wet rag or cloth. While still wearing RPE, remove coveralls, turning them inside-out to entrap any remaining contamination and then Place them into a labelled asbestos waste bag. Remove RPE. If non-disposable, inspect it to ensure it is free from contamination, clean it with a wet rag and store in a clean container. If disposable, cleaning is not required but RPE should be placed in a labelled asbestos waste bag or waste container. Refer to the *Code of Practice: How to Safely Remove Asbestos* for more information.
Clearance procedure	• Visually inspect the asbestos work area to make sure it has been properly cleaned. • Clearance air monitoring is not normally required for this task. • Dispose of all waste as asbestos waste. Refer to the *Code of Practice: How to Safely Remove Asbestos* for more information.

6.25 Safe Work Practice – Cleaning Leaf Litter from Gutters of Asbestos Cement Roofs.

SAFE WORK PRACTICE 3 – CLEANING LEAF LITTER FROM GUTTERS OF ASBESTOS CEMENT ROOFS	
Equipment that may be required prior to starting work (in addition to what is needed for the task)	A bucket of water, or more as appropriate, and detergent A watering can or garden spray A hand trowel or scoop Disposable cleaning rags A suitable asbestos waste container Warning signs and/or barrier tape An asbestos vacuum cleaner.
PPE	Protective clothing and RPE (see **AS1715, AS 1716).** It is likely that a class P1 or P2 half face respirator will be adequate for this task, provided the recommended safe work procedure is followed.
Preparing the asbestos work area	Since the work is to be carried out at a height, appropriate precautions must be taken to prevent the risk of falls. Ensure appropriately marked asbestos waste disposal containers are available. Segregate the asbestos work area to ensure unauthorised personnel are restricted from entry (e.g. use warning signs and/or barrier tape at all entry points). The distance for segregation should be determined by a risk assessment. Segregate the area below. Avoid working in windy environments where asbestos fibres can be redistributed. If using a bucket of water, do not resoak used rags in the bucket as this will contaminate the water. Instead, either fold the rag so a clean surface is exposed or use another rag.
Gutter cleaning	Disconnect or re-route the downpipes to prevent any entry of contaminated water into the waste water system and ensure there is a suitable container to collect contaminated runoff. Contaminated water must be disposed of as asbestos waste. Mix the water and detergent. Using the watering can or garden spray, pour the water and detergent mixture into the gutter but avoid over-wetting as this will create a slurry. Remove the debris using a scoop or trowel. Do not allow debris or slurry to enter the water system - Wet the debris again if dry material is uncovered. Place the removed debris straight into the asbestos waste container.
Decontarninating the asbestos work area and equipment	Use damp rags to wipe down all equipment used. Use damp rags to wipe down the guttering. Where practicable, and if necessary, use an asbestos vacuum cleaner to vacuum the area below. Place debris, used rags and other waste in the asbestos waste container. Wet wipe the external surfaces of the asbestos waste container to remove any adhering dust before it is removed from the asbestos work area.

Personal decontarninatio n should be carried out in a designated area	If disposable coveralls are worn, clean the coveralls while still wearing RPE using a HEPA vacuum, damp rag or fine-water spray. RPE can be cleaned with a wet rag or cloth. While still wearing RPE, remove coveralls, turning them inside-out to entrap any remaining contamination and then Place them into a labelled asbestos waste bag. Remove RPE. If non-disposable, inspect it to ensure it is free from contamination, clean it with a wet rag and store in a clean container. If disposable, cleaning is not required but RPE should be placed in a labelled asbestos waste bag or waste container. Refer to the *Code of Practice: How to Safely Remove Asbestos* for more information.
Clearance procedure	• Visually inspect the asbestos work area to make sure it has been properly cleaned. • Clearance air monitoring is not normally required for this task. • Dispose of all waste as asbestos waste. Refer to the *Code of Practice: How to Safely Remove Asbestos* for more information.

6.26 Safe Work Practice – Replacing Cabling in Asbestos Cement Conduits or Boxes.

SAFE WORK PRACTICE 4 – REPLACE CABLING IN ASBESTOS CEMENT CONDUITS OR BOXES	
Equipment that may be required prior to starting the work (in addition to what is required for the task)	Disposable cleaning rags A bucket of water, or more as appropriate, and/or a misting spray bottle 200 pm thick plastic sheeting Cable slipping compound Appropriately marked asbestos waste disposal bags Spare PPE Duct tape Warning signs and/or barrier tape An asbestos vacuum cleaner.
PPE	Protective clothing and RPE (see **AS1715, AS 1716).** It is likely that a class P1 or P2 half face respirator will be adequate for this task, provided the recommended safe work procedure is followed.
Preparing the asbestos work area	If the work will be carried out in a confined space, appropriate precautions must be taken to prevent the risk of asphyxiation. Ensure appropriately marked asbestos waste disposal bags are available. Carry out the work with as few people present as possible. Segregate the asbestos work area to ensure unauthorised personnel are restricted from entry (e.g. use warning signs and/or barrier tape at all entry points). The distance for segregation should be determined by a risk assessment. Use plastic sheeting secured with duct tape to cover any surface within the asbestos work area which could become contaminated. Place plastic sheeting below any conduits before pulling any cables through. Ensure there is adequate lighting. Avoid working in windy environments where asbestos fibres can be redistributed. If using a bucket of water, do not resoak used rags in the bucket as this will contaminate the water. Instead, either fold the rag so a clean surface is exposed or use another rag.
Replacement or installation of cables	Wet down the equipment and apply adequate cable slipping compound to the conduits/ducts throughout the process. Clean all ropes, rods or snakes used to pull cables after use. Cleaning should be undertaken close to the point(s) where the cables exit from the conduits/ducts. Ropes used for cable pulling should have a smooth surface that can easily be cleaned. Do not use metal stockings when pulling cables through asbestos cement conduits. Do not use compressed air darts to pull cables through asbestos cement conduits/ducts.
Decontaminating the asbestos work area and equipment	Use damp rags to clean the equipment. Wet wipe around the end of the conduit, sections of exposed cable and the pulling eye at the completion of the cable pulling operation. If the rope or cable passes through any rollers, these must also be wet wiped after use. Wet wipe the external surface of excess cable pulled through the conduit/duct, as close as possible to the exit point from the conduit, before it is removed from the work site. Carefully roll or fold any plastic sheeting used to cover any surface within the asbestos work area, so as not to spill any dust or debris that has been collected. If required, use damp rags or an asbestos vacuum cleaner to clean any remaining visibly contaminated sections of the asbestos work area. Place all debris, used rags, plastic sheeting and other waste in the asbestos waste bags/container.

	Wet wipe the external surfaces of the asbestos waste bags/container to remove any adhering dust before they are removed from the asbestos work area.
Personal decontamination should be carried out in a designated area	If disposable coveralls are worn, clean the coveralls while still wearing RPE using a HEPA vacuum, damp rag or fine-water spray. RPE can be cleaned with a wet rag or cloth. While still wearing RPE, remove coveralls, turning them inside-out to entrap any remaining contamination and then Place them into a labelled asbestos waste bag. Remove RPE. If non-disposable, inspect it to ensure it is free from contamination, clean it with a wet rag and store in a clean container. If disposable, cleaning is not required but RPE should be placed in a labelled asbestos waste bag or waste container. Refer to the *Code of Practice: How to Safely Remove Asbestos* for more information.
Clearance procedure	• Visually inspect the asbestos work area to make sure it has been properly cleaned. • Clearance air monitoring is not normally required for this task. • Dispose of all waste as asbestos waste. Refer to the *Code of Practice: How to Safely Remove Asbestos* for more information.

6.27 Safe Work Practice – Working on Electrical Mounting Boards Containing Asbestos.

SAFE WORK PRACTICE 5 – WORKING ON ELECTRICAL MOUNTING BOARDS CONTAINING ASBESTOS	
If the asbestos-containing electrical mounting panel has to be removed for work behind the board, the procedures outlined in the Code of Practice: How to Safely Remove Asbestos must be followed. If drilling is required, the control process should be consistent with the measures in Safe Work Practice 1.	
Equipment that may be required prior to starting the work (in addition to what is required for the task)	• A non-powered hand drill or a low-speed battery-powered drill or drilling equipment. Battery-powered drills should be fitted with a LEV dust control hood wherever possible. If a LEV dust control hood cannot be attached and other dust control methods, such as pastes and gels, are unsuitable then shadow vacuuming techniques should be used Duct tape Warning signs and/or barrier tape Disposable cleaning rags A plastic bucket of water and/or a misting spray bottle Spare PPE A suitable asbestos waste container 200 mm plastic sheeting An asbestos vacuum cleaner.
PPE	Protective clothing and RPE (see AS1715, AS 1716. It is likely that a class P1 or P2 half face respirator will be adequate for this task, provided the recommended safe work procedure is followed.
Preparing the asbestos work area	As the work area will involve electrical hazards, precautions must be taken to prevent electrocution. Ensure appropriately marked asbestos waste disposal bags are available. Carry out the work with as few people present as possible. Segregate the asbestos work area to ensure unauthorised personnel are restricted from entry (e.g. use warning signs and/or barrier tape at all entry points). The distance for segregation should be determined by a risk assessment. o Use plastic sheeting secured with duct tape to cover any surface within the asbestos work area which could become contaminated. Ensure there is adequate lighting. Avoid working in windy environments where asbestos fibres can be redistributed. If using a bucket of water, do not resoak used rags in the bucket as this will contaminate the water. Instead, either fold the rag so a clean surface is exposed or use another rag.
Work on electrical mounting panels	Providing the panel is not friable, maintenance and service work may include: o replacing asbestos containing equipment on the electrical panel with non-asbestos equipment o operate main switches and individual circuit devices o pull/insert service and circuit fuses o bridge supplies at meter bases o use testing equipment o access the neutral link o install new components/equipment.
Decontaminating the asbestos work area and equipment	Use damp rags to clean the equipment. Carefully roll or fold any plastic sheeting used to cover any surface within the asbestos work area so as not to spill any dust or debris that has been collected. If there is an electrical hazard, use an asbestos vacuum cleaner to remove any dust from the mounting panel and other visibly contaminated sections of the asbestos work area.

	If there is no electrical hazard, wet wipe with a damp rag to remove minor amounts of dust. Place debris, used rags, plastic sheeting and other waste in the asbestos waste bags/container. Wet wipe the external surfaces of the asbestos waste bags/container to remove any adhering dust before they are removed from the asbestos work area.
Personal decontamination should be carried out in a designated area	If disposable coveralls are worn, clean the coveralls while still wearing RPE using a HEPA vacuum, damp rag or fine-water spray. RPE can be cleaned with a wet rag or cloth. While still wearing RPE, remove coveralls, turning them inside-out to entrap any remaining contamination and then Place them into a labelled asbestos waste bag. Remove RPE. If non-disposable, inspect it to ensure it is free from contamination, clean it with a wet rag and store in a clean container. If disposable, cleaning is not required but RPE should be placed in a labelled asbestos waste bag or waste container. Refer to the *Code of Practice: How to Safely Remove Asbestos* for more information.
Clearance procedure	• Visually inspect the asbestos work area to make sure it has been properly cleaned. • Clearance air monitoring is not normally required for this task. • Dispose of all waste as asbestos waste. Refer to the *Code of Practice: How to Safely Remove Asbestos* for more information.

6.28 Safe Work Practice – Inspection of Asbestos Friction Materials.

SAFE WORKING PRACTICE 6 – INSPECTION OF ASBESTOS FRICTION MATERIALS	
This guide may be used when friction ACM (e.g. brake assemblies or clutch housings) need to be inspected or housings need to be cleaned. Compressed air must not be used to clean dust from a brake assembly.	
Equipment that may be required prior to starting the work (in addition to what is required for the task)	• A misting spray bottle • Duct tape • Warning signs and/or barrier tape • Disposable cleaning rags • A bucket of water and detergent • Spare PPE • A suitable asbestos waste container • A catch tray or similar container • An asbestos vacuum cleaner.
PPE	Protective clothing and RPE (see **AS1715, AS 1716).** It is likely that a class P1 or P2 half face respirator will be adequate for this task, provided the recommended safe work procedure is followed.
Preparing the asbestos work area	Ensure appropriately marked asbestos waste disposal bags are available. Carry out the work with as few people present as possible. Determine whether to segregate the asbestos work area Ensure unauthorised personnel are restricted from entry by using barrier tape and/or warning signs. Use a suitable collection device below where the work will be carried out to collect any debris/ runoff. Ensure there is adequate lighting. Avoid working in windy environments where asbestos fibres can be redistributed. If using a bucket of water, do not resoak used rags in the bucket as this will contaminate the water. Instead, either fold the rag so a clean surface is exposed or use another rag.
Inspection of asbestos friction materials	A misting spray bottle should be used to wet down any dust. If spray equipment disturbs asbestos, use alternative wetting agents e.g. a water-miscible degreaser or a water/detergent mixture. • Use the wet method, but if this is not possible the dry method may then be used. <u>Wet method:</u> • Use the misting spray bottle to wet down any visible dust. • Use a damp rag to wipe down the wheel or automobile part before removal. Ensure the dust is kept wet to prevent atmospheric contamination. Use hand tools rather than power tools to reduce the generation of airborne fibres. Partially open the housing and softly spray the inside with water using the misting spray bottle. Any spillage of dust, debris or water must be controlled (e.g. capturing any runoff in a container) and either filtered or disposed of as asbestos waste. Open the housing and clean all asbestos parts using a damp rag, ensuring all runoff water is caught in an asbestos waste container. <u>Dry method:</u> • Place a tray under the components to catch dust or debris spilling from the housing or components during the inspection and dispose of any material as asbestos waste. Use an asbestos vacuum cleaner to remove asbestos from the brakes and rims or other materials before carrying out the inspection.

Decontarninating the asbestos work area and equipment	Use damp rags to clean the equipment, including the dust collection tray. If necessary, use damp rags or an asbestos vacuum cleaner to clean any remaining visibly contaminated sections of the asbestos work area. Place debris, used rags and other waste in the asbestos waste bags/container. Wet wipe the external surfaces of the asbestos waste bags/container to remove any adhering dust before removing them from the asbestos work area.
Personal decontarninatio n should be carried out in a designated area	If disposable coveralls are worn, clean the coveralls and RPE while still wearing them using an asbestos vacuum cleaner, damp rag or fine-water spray. RPE can be cleaned with a wet rag/cloth. While still wearing RPE, remove coveralls, turning them inside-out to entrap any remaining contamination and then Place them into a labelled asbestos waste bag. Remove RPE. If non-disposable, inspect it to ensure it is free from contamination, clean it with a wet rag and store in a clean container. If disposable, cleaning is not required but RPE should be placed in a labelled asbestos waste bag or waste container. Refer to the *Code of Practice: How to* Safely *Remove Asbestos* for more information.
Clearance procedure	• Visually inspect the asbestos work area to make sure it has been properly cleaned. • Clearance air monitoring is not normally required for this task. • Dispose of all waste as asbestos waste. Refer to the *Code of Practice: How to* Safely *Remove Asbestos* for more information.

6.29 Asbestos Removal – Detailed Discussions.

The *Code of Practice CP113 – How to Safely Remove Asbestos,* published by Workplace Standards in December 2012, should be read, comprehended and abided by as applicable and appropriate.

6.29.1 Duties for Licensed Asbestos Removal Work.

Licensed asbestos removal work can differ greatly depending on the type, quantity and condition of the asbestos or ACM being removed. There are a number of duties in the WHS Regulations to ensure licensed asbestos work is carried out safely and without releasing airborne asbestos and exposing workers and other persons.

A summary of the specific duties in the WHS Regulations are:

ensuring an asbestos removalist supervisor is readily available or present when the work is being carried out **(R.459)**

providing appropriate training and ensuring the asbestos removal worker has undertaken the relevant units of competencies associated with the asbestos removal **(R.460-461)**

telling various parties about the asbestos removal and providing them with appropriate information **(R.462 and R.467-468)**

obtaining the workplace's asbestos register **(R.463)**

preparing an asbestos removal control plan **(R.464-465)**

notifying the regulator about the work before it starts **(R.466)**

displaying signs and labels in the asbestos work area **(R.469)**

limiting access to the asbestos work area **(R.470)**

ensuring appropriate decontamination facilities are in place **(R.471)**

ensuring waste containment and disposal procedures are in place **(R.472)**

ensuring clearance inspections are conducted and issuing clearance certificates **(R.473-474)**

ensuring air monitoring is conducted, where appropriate **(R.475-477).**

These requirements apply to a number of duty holders including the licensed asbestos removalist, the person who commissioned the asbestos removal work, and the person with management and control of the workplace.

6.30 Asbestos Removal Control Plan Contents.

	Building & structures		Plant & equipment	
	Friable	**Non-Friable**	**Friable**	**Non-Friable**
Notification				
Notification requirements have been met and required documentation will be on site (e.g. removal licence, control plan, training records)	Yes	Yes	Yes	Yes
Identification				
Details of asbestos to be removed (e.g. the locations, whether asbestos is friable/non-friable, its type, condition and quantity being removed)	Yes	Yes	Yes	Yes
Preparation				
Consult with relevant parties (health and safety representative-, workers-, person who commissioned the removal work, licensed asbestos assessors)	Yes	Yes	Yes	Yes
Assigned responsibilities for the removal	Yes	Yes	Yes	Yes
Program commencement and completion dates	Yes	Yes	Yes	Yes
Emergency plans	Yes	Yes	Yes	Yes
Asbestos removal boundaries, including the type and extent of isolation required and the location of any signs and barriers	Yes	Yes	Yes	Yes
Control of other hazards including electrical and lighting installations	Yes	Yes	Yes	Yes
PPE to be used including RPE	Yes	Yes	Yes	Yes
Removal				
Details of air-monitoring program Control and clearance	**Yes**	**No**	**Yes**	No
Waste storage and disposal program	Yes	Yes	Yes	Yes
Method for removing the asbestos (wet and dry methods)	Yes	Yes	Yes	Yes
Asbestos removal equipment (e.g. spray equipment, asbestos vacuum cleaners, cutting tools)	Yes	Yes	Yes	Yes
Details of required enclosures, including their size, shape, structure etc, smoke testing enclosures and the location of negative pressure exhaust units	Yes	No	Yes	No
Details on temporary buildings required by the asbestos removalist (e.g. decontamination units) including details on water, lighting and power requirements, negative pressure exhaust units and the locations of decontamination units	Yes	May be required depending on the job	Yes	May be required depending on the job
Other risk control measures to prevent the release of airborne asbestos fibres from the area where asbestos removal is undertaken	Yes	Yes	Yes	Yes
Decontamination				
Detailed procedures for workplace decontamination, the decontamination of tools and equipment, personal decontamination and the decontamination of non-disposable PPE and RPE	Yes	Yes	Yes	Yes
Waste Disposal				

Method of disposing of asbestos wastes, including details on: o the disposal of protective clothing	Yes	Yes	Yes	Yes
• the structures used to enclose the removal area	Yes	No	Yes	Yes

Clearance and air monitoring

Name of the independent licensed asbestos assessor or competent person engaged to conduct air monitoring (if any)	Yes	No	Yes	No
Consultation				
Consult with any people who may be affected by the removal work, including neighbours	Yes	Yes	Yes	Yes

6.31 Respiratory Protective Equipment.

When selecting RPE, you should also refer to the AS/NZS 1715-1994 *Selection, Use and Maintenance of Respiratory Protective Devices* and AS 1 716:2003 *Respiratory Protective Devices.*

The figures below provide examples of some respirators that can be used. The protection afforded by each device depends not only on the design and fit of the respirator but also upon the efficiency of the filters (for instance, P1, P2 or P3). These figures are indicative only. In order to show the correct respirator fit, they do not show the use of hoods. Respirators must always be worn under a hood.

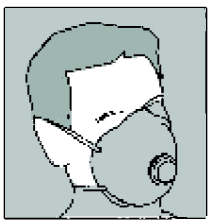
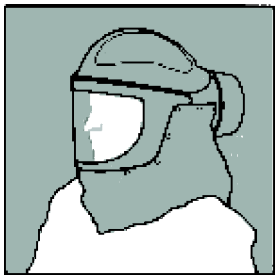


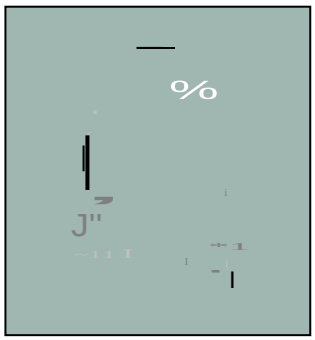
Figure 5- Disposable, half-face particulate respirator.

Figure 6- Half-face, particulate filter (cartridge) respirator.



K'i Powered, air-purifying, ventilated respirator

Figure 7- Powered, air-purifying, ventilated respirator.



(D) R104a(E~. pardCullate fi l tor (caridd ye) re 5pi rator

Figure 8- Full-face, particulate filter (cartridge) respirator.

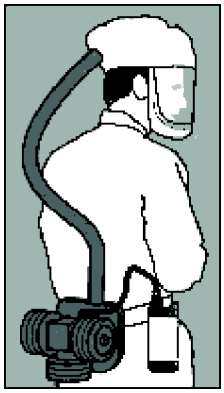


Figure 9- Full-face, powered air-purifying particulate respirator.

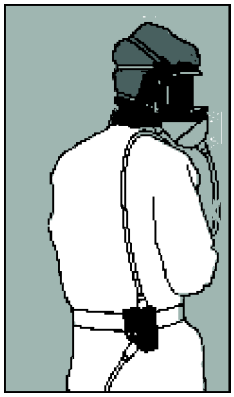


Figure 10- Full-face, positive pressure demand air-line respirator.

6.31.1 Selection of RPE.

The most efficient respirator and filter for the task should be used. Proper fit is critical; a disposable half-face respirator is especially difficult. Consideration should be given to upgrading to a non-disposable half-face respirator.

Table 2 provides guidance for the selection of appropriate respiratory protection for different tasks, assuming the correct work procedures are being followed. This table does not take into account personal features including facial hair or where glasses are worn. Full protection cannot be achieved if either of these factors interferes with the face seal.

Workers should be consulted on the selection of RPE to ensure individual fit and medical factors have been considered.

Work Procedure	Required respirator	Filter type
Simple enclosure erection for containing undamaged asbestos materials to prevent damage - no direct handling but possible disturbance of asbestos	**Disposable, half-face particulate respirators OR Half-face, particulate filter (cartridge) respirator**	P1 or P2
Inspection of the condition of any installed friable asbestos, which appears in poor condition or has been disturbed	**Disposable, half-face particulate respirators OR Half-face, particulate filter (cartridge) respirator**	**P1 or P2**
Sampling material for the purpose of identifying asbestos	**Disposable, half-face particulate respirators OR Half-face, particulate filter (cartridge) respirator**	**P1 or P2**
Removal of non-friable asbestos (e.g. asbestos cement sheets, ceiling tiles and vinyl tiles)	**Disposable, half-face particulate respirators OR Half-face, particulate filter (cartridge) respirator**	**P1 or P2**
Extensive sample operations on friable asbestos and Maintenance work involving the removal of small quantities of friable asbestos (e.g. replacement of friable asbestos gaskets and insulation)	**Full-face, particulate, filter (cartridge)** respirator	**P3**
Certain forms of wet stripping in which wetting is prolonged and effective, and certain small-scale dry stripping operations	Full-face, powered air-purifying particulate respirator OR Full-face, positive pressure demand air-line respirator	P3
Certain forms of dry stripping and ineffective wet stripping (light wetting, no time given to saturate)	Full-face, powered air-purifying particulate respirator OR Full-face, positive pressure demand air-line respirator No lesser respirator will suffice	P3

Work Procedure	Required respirator	Filter type
Dry stripping in confined areas	Full suit or hood, positive pressure demand continuous flow air-line respirator No lesser respirator will suffice	P3 only as a backup

Table 2- Selecting RPE.

6.31.2 Fit Testing of Face Pieces.

6.31.2 Fit testing of face pieces

The fit of a negative-pressure respirator to a worker's face is critical. A fit test, in accordance with *ASINZS 1715:2009 Selection, Use and Maintenance of Respiratory Protective Devices* and the manufacturer's instructions, should be performed to assist in determining the best fit respirator for the individual worker immediately before commencing work and a fit check performed each time the respirator is to be used.

The performance of RPE depends on a good contact between the wearer's skin and the face seal of the mask so that the mask is a tight-fitting face piece or full mask. A good face seal can only be achieved if the wearer is clean-shaven in the region of the seal and the face piece is the correct size and shape to fit the wearer's face.

Workers using negative-pressure respirators should also be clean-shaven to ensure a good face seal. Workers with beards, stubble or facial hair should use a continuous-flow positive pressure respirator.

Workers wearing prescription glasses with side arms may not be able to use full-face respirators because of the loss of seal around the spectacle arms. If their glasses cannot be modified so they do need the support of the ears, these workers should not use full-face respirators and should wear air supply hoods instead. Ensure that these hoods will provide a sufficient level of protection.

Where the half-face respirator has been selected as providing the most appropriate protection and a seal or fit is not achievable from non-disposable respirators, a disposable respirator may be used.

To conduct a full or half-face respirator fit check:

- Close off inlet to filter
- Inhale gently
- Hold for 10 seconds
- Check that the face piece remains slightly collapsed, as it should.

6.31.3 Example of a Clearance Certificate

SECTION A – CLEARANCE INSPECTION DETAILS

Note: Where asbestos removal work requires a Class A licence, an independent licensed asbestos assessor must carry out the clearance inspection and complete clearance certificate if satisfied that the area is safe to re-occupy.

Client details	
Name of client:	
Client contact details:	
Removal work details	
Date removal work carried out:	
Site address where removal work is being carried out:	
Details of the specific asbestos removal work area(s):	
Name of licensed asbestos removalist:	
Name and contact details of licensed asbestos removalist supervisor (if different to removalist):	
Inspection details	
Date of clearance inspection:	
Time of clearance inspection:	

SECTION B - ASBESTOS REMOVAL WORK PAPERWORK

	Yes	No
Do you have a copy of the asbestos removal control plan?		
Do you have a copy of the notification form?		
Is the removal work consistent with the control plan and the notification form? (e.g. use of enclosures, decontamination facilities, waste facilities)		

SECTION C -ASBESTOS REMOVAL WORK AREA

1. Visual Inspection

	Yes	No
Inspection of the specific area detailed in Section A found no visible asbestos remaining as a result of the asbestos removal work carried out.		
Is air monitoring required (if no, proceed to Section E)		
Can the area be reoccupied?		
Has additional information been attached? (e.g. photos, drawings, plans)		

2. Air monitoring

	Yes	No
Air monitoring was carried out as part of the clearance inspection. The result was below 0.01 f/ml.		
Has the air monitoring sample been analysed by a NATA-accredited laboratory?		
Is the air monitoring report attached?		
Can the area be reoccupied?		

SECTION D - ENCLOSURES

1. Prior to dismantling the enclosure

	Yes	No
The area within the enclosure and the area immediately surrounding the enclosure was inspected and no visible asbestos was found.		
Air monitoring was carried out as part of the clearance inspection. The result was below 0.01f/ml.		
Is the air monitoring report attached?		
Can the enclosure be dismantled?		

Number of samples collected:

	Sample 1	**Sample 2**	**Sample 3**	**Sample 4**	**Sample 5**
RESULTS					

2. After the enclosure was dismantled and removed

	Yes	No
An inspection of the area in which the enclosure was erected and the area immediately surrounding the area where the enclosure was erected was inspected and no visible asbestos was found.		
Air monitoring was carried out as part of the clearance inspection. The result was below 0.01f/ml.		
Is the air monitoring report attached?		
Can the area be reoccupied?		

Number of samples collected:

	Sample 1	**Sample 2**	**Sample 3**	**Sample 4**	**Sample 5**
RESULTS					

SECTION E - CLEARANCE DECLARATION

I declare that:

- the former enclosure, asbestos removal work area and the surrounding area are free from any visible asbestos

  the transit route and waste routes are free from any asbestos,

  all asbestos in the scope of the removal work has been removed and any known asbestos is intact.

…….. ……

Signature of licensed asbestos assessor/competent person

Assessor licence number (if applicable)

……

Name of licensed asbestos assessor /competent person

6.31.4 Examples of Asbestos Removal Work.

This appendix does not address other hazards that may be present at a workplace, for example falls from heights or electrical hazards. These hazards must also be identified and the associated risks controlled.

This appendix provides guidance on how to perform a specific task associated with asbestos removal work. With all tasks, some general requirements include the following:

- Obtain the asbestos register prior to commencing asbestos removal work.

  Depending on the type of asbestos removal work, follow the requirements outlined in Chapters 2-4 of this Code (for example, laying plastic sheeting, isolating the work areas, signs and barricades, PPE, cleaning up site decontamination).

Asbestos cement products

Asbestos cement products consist of approximately 15 per cent asbestos fibres by weight. A wide range of products have been commonly found-including roofing, shingles, exterior cladding on industrial, public and some domestic premises, corrugated/profile sheets as well as flat sheets that have been used for exterior flexible building boards.

If possible, you should remove the asbestos cement products whole. If some sections have been damaged prior to removal, these may be strengthened by applying duct tape.

Identify the method in which the asbestos cement product is held in place, then use a method that would minimise airborne dust generation in removing the product. For example:

- fasteners: dampen then carefully remove using a chisel

  bolts: dampen then use bolt cutters (or an oxy torch) - do not use an angle grinder

  screws: dampen then carefully unscrew with a screwdriver

  nails: dampen then carefully lever the panel or punch through if absolutely necessary.

Avoid breaking the asbestos cement products. If breakage is absolutely necessary to remove/dislodge the product, dampen the material and minimize breakage.

Remove the asbestos cement product wet/damp by applying a fine water spray, unless this creates an electrical risk.

Once removed from its position, spray the back of the product with a fine water spray. Frequent application of a fine water spray may be required depending on the circumstances (e.g. on a very hot day) but be careful not to create a slip hazard.

Personal decontamination must be carried out in accordance with the WHS Regulations and this Code.

Asbestos cement roof sheeting

Asbestos cement can become brittle with age, so any removal work on roofs should address the risk of fall hazards. If lichen is encountered on roof sheeting, caution should be exercised in the use of water and the choice of workers' footwear because lichen can be slippery, especially when it is wet.

The removal of asbestos cement roofing must be performed in accordance with the WHS Regulations.

Angle grinders should not be used because of the potential for damage to the asbestos cement and subsequent fibre release. Anchoring screws/bolts should be removed from the roofing sheets using an oxy torch or another suitable device that will not significantly damage the sheet.

If the system of removal involves walking on the roof to remove roof sheeting (this should be the last option when choosing a method to remove roof sheeting), spray the asbestos cement roof sheeting with a PVA solution prior to removal. Ensure the **PVA is dry** before removing it so as to avoid a slip hazard. Once removed, spray the back (underside) of the asbestos cement with either a fine water spray or the PVA solution.

Where the asbestos cement product requires lowering to the ground, ensure this is done in a manner that will minimise the generation of respirable dust. Do not use chutes, ramps or similar gravity dependent devices. Examples of appropriate lowering methods for roof sheeting include:

- by hand, over short distances
- loading the wrapped sheets on to a cradle for support
- using scissor lifts or similar devices
- using scaffolds.

You should follow the cleaning, decontamination, waste removal and disposal procedures in this Code once the asbestos sheeting has been removed.

Where the area to be removed is greater than the size of an average domestic house or where considerable dust will be generated, you should use a full decontamination unit.

Ensure that clearance of the area has been completed and a clearance certificate has been issued prior to reoccupation of the area.

Personal decontamination must be carried out in accordance with the WHS Regulations and this Code.

Removal of floor tiles

Flooring products such as Polyvinyl chloride (PVC or vinyl) tiles often contain a few per cent (5-7 per cent) of very fine chrysotile. Black and brown thermoplastic tiles containing larger amounts and often visible clumps of chrysotile were also produced. Sheet floor coverings were sometimes backed with a thin layer of chrysotile paper. Some underfelts, such as hessian underlays for carpets and linoleum, were also manufactured containing asbestos. The mastics which were used to bond the floor covering to the surface could also contain asbestos. Some hard-wearing composite floors (for example, magnesium oxychloride) also contain about 2 per cent of mineral fibres, which could be asbestos.

Place a tool (such as a scraper or wide blade) between the tiles and lift the tile away from the floor, being careful to minimise breakage. A hammer or mallet can be used to tap the tool under firmly-adhered tiles to assist separating the tiles from the floor.

Minimise dust by spraying fine water mist under tiles as they are lifted.

Place the tiles into a 200 pm plastic waste bag or suitable alternate waste container dedicated for asbestos waste that is clearly labelled with an appropriate warning sign indicating asbestos waste.

Use the scraper to remove any adhesive that is left adhered to the floor after each tile has been removed and place this waste into the asbestos waste bag or suitable waste container.

The vinyl can be cut into strips prior to its removal to facilitate bagging, or it can be rolled into one roll and wrapped securely with plastic, making sure it is totally sealed.

If a heat source is used to soften the adhesive beneath a vinyl tile, care should be taken not to scorch or burn the tile. Burning or scorching vinyl tiles can result in the release of toxic decomposition products and generate a fire hazard. In some cases, the adhesive may contain asbestos.

Follow the cleaning, decontamination, waste removal and disposal procedures once the tiles have been removed.

Ensure that clearance of the area has been completed prior to reoccupation of the area.

Personal decontamination must be carried out in accordance with the WHS Regulations and this Code.

Removing bituminous (malthoid) products

This material is generally regarded as non-friable and includes bitumen products such as roofing felts and damp-proof courses that have been widely reinforced by the addition of asbestos, usually in the form of chrysotile paper. Bitumen-based wall and floor coverings were also produced.

Some mastics used to stick the bitumen products commonly had asbestos added to them for flexibility. Other sealants also had asbestos added to improve the performance of the product. When removing bituminous products:

- seal access points (for example, skylights) with material such as 200 pm plastic sheeting and duct tape.

  Where there are exhaust vents from gas fired equipment in the area, it is dangerous to seal over them. Turn the gas off if possible.

  Cut and remove manageable sections. Place cut pieces in a lined skip or wrap in plastic sheeting.

  Remove adhering material by dampening and gently scraping. Consider using an industrial vacuum cleaner fitted with a HEPA filter while scraping.

  Remember that mastics are flexible and may require removal by using scraping and chipping tools. The pieces removed should be kept as intact as possible.

  If heating is used to soften the material to enable the material to be peeled, it is important not to burn the material, as this can release respirable asbestos fibres. Excessive heating is also likely to generate toxic fumes and gases and generate a fire hazard.

  Collect all debris and dispose of waste according to the waste disposal procedures.

Personal decontamination must be carried out in accordance with the WHS Regulations and this Code.

Removal of ceiling tiles

False ceiling tiles or suspended ceilings sometimes need to be removed so maintenance work can be performed. If asbestos has been used on structural materials above a false ceiling there could be contamination on the upper surface of the tiles.

The minimum RPE suitable for this operation is a P1 or P2 filter with a half-face piece respirator. If considerable amounts of asbestos dust or debris are likely to be involved, full-face air-purifying positive pressure respirators should be worn.

Any surface below the tiles that might be contaminated should be covered with plastic sheeting.

The first tile should be lifted carefully to minimize the disturbance of any asbestos fibres. The top of each tile should be thoroughly vacuumed and wet wiped, where possible, prior to removing subsequent tiles.

Where non-asbestos ceiling tiles are to be reused, they should be covered with plastic as they are removed from the ceiling to prevent further dust settling on them.

Wrap the asbestos ceiling tiles in a double layer of heavy-duty, 200um thick plastic sheeting.

Waste containment, disposal and clearance must be carried out in accordance with the WHS Regulations and this Code.

Personal decontamination must be carried out in accordance with the WHS Regulations and this Code.

Removal of gaskets and rope seals

This material is generally regarded as friable. If there is any doubt, advice should be sought from a person with knowledge and experience in dealing with asbestos.

Gaskets reinforced with asbestos were once used extensively in plant and equipment exposed to high temperatures and/or pressures. These gaskets were typically used between the flanges of pipes.

Asbestos rope was often used for lagging pipes and valves and for sealing hatches. It is likely that the asbestos in gaskets and rope from plant and equipment will be friable. When removing gaskets and rope seals:

- ensure the plant or equipment is shut down and isolated

  dismantle the equipment carefully. Protect any other components with plastic sheeting

  ensure the plant and equipment has been made safe (pipework emptied, electrical supply isolated and equipment shutdown, etc.)

  unbolt or unscrew the flange or dismantle the equipment

  once accessible, dampen the asbestos with a fine water mist or similar. Continue dampening the asbestos as more of it is exposed/accessible

  ease the gasket or rope seal away with the scraper and place into the waste container positioned directly beside/beneath it. Keep the area damp and scrape away any residue

  consider using an industrial vacuum cleaner fitted with a **HEPA** filter while scraping.

Personal decontamination must be carried out in accordance with the WHS Regulations and this Code.

Removal of pipe lagging using a glove bag (small section)

Asbestos was widely used to insulate pipes, boilers and heat exchangers.

There are several types and forms of insulation, often with multi-layer construction. Pre-formed sections of asbestos insulation were made to fit the diameter of the pipe. These would be strapped on and calico-wrapped and sometimes painted (for example, 'Decadex' finish) or sealed with a hard plaster (often asbestos-containing) to protect against knocks and abrasion. Other types of asbestos-containing felts, blankets, tapes, ropes and corrugated papers were also used. For bends and joins, ensure the plant and equipment has been made safe (for example, pipework emptied, electrical supply isolated and equipment shut down).

Set-up/attach the glove bag and perform the removal work as described in this Code. Remove and dispose of waste according to the relevant sections of this Code.

Personal decontamination must be carried out in accordance with the WHS Regulations and this Code.

Fire retardant material

These are normally homogeneous coatings sprayed or trowelled onto reinforced concrete or steel columns or beams as fireproofing. Sprays were also commonly used on the underside of ceilings for fireproofing and sound and thermal insulation in many high-rise premises. Warehouses and factories commonly had sprayed asbestos applied to walls, ceilings and metal support structures for fireproofing.

Some fire doors contained loose asbestos insulation sandwiched between the wooden or metal facings to give them the appropriate fire rating. Loose asbestos was also packed around electrical cables, sometimes using chicken wire to contain it.

Mattresses containing loose asbestos were widely manufactured for thermal insulation. Acoustic insulation has been provided between floors by the use of loose asbestos in paper bags, and in some areas near removal works it is known that loose asbestos has been used as a readily available form of loft insulation.

Asbestos textiles were manufactured for primary heat (for example, insulation tapes and ropes) or fire protection uses (for example, fire blankets, fire curtains and fire-resistant clothing). Textiles were also used widely as a reinforcing material in friction products/composites.

It will depend on where the fire retardant material is located and the quantity of the material as to how the removal process is conducted, however the asbestos is friable and a Class A licensed asbestos removalist must perform the asbestos removal work.

An asbestos removal control plan must be developed.

- Establish the extent of the removal area and move all items out of the area or cover them with 200 um plastic sheeting if they could be contaminated during the removal work.

  Develop an enclosure that allows smooth flow of air from the decontamination unit to the negative air units. In constructing the enclosure, pay particular attention to penetrations through the floor and ceiling/roof. Set up the enclosure and decontamination unit and remove and dispose of asbestos.

  Ensure all air-conditioning equipment has been shut and isolated/blanked from this area.

  Maintain regular checks on the negative air unit and decontamination unit. An independent licensed asbestos assessor must conduct/control air monitoring throughout the asbestos removal work.

  Clearance monitoring by an independent licensed asbestos assessor and the issue of a clearance certificate is required before re-entry into the removal work area.

Personal decontamination must be carried out in accordance with the WHS Regulations and this Code.

Removal of asbestos-backed vinyl and millboard from beneath a vinyl floor

As asbestos millboard is typically 100% asbestos and very friable. A full enclosure with negative air extraction units must be used for this type of asbestos removal work.

The asbestos millboard should be wetted down as the vinyl is peeled from the floor, preferably with the millboard attached. The vinyl can be rolled into one roll and wrapped securely with plastic, making sure it is totally sealed. If the vinyl sheeting cannot be removing without leaving some of the asbestos millboard on the floor surface, the remaining asbestos millboard should be wetted down and when thoroughly soaked, scraped off the floor surface.

Sufficient water should be used to dampen the asbestos millboard, but not so much that run-off or pools of contaminated water will occur.

If a heat source is used to soften the adhesive beneath a vinyl tile, care should be taken not to scorch or burn the tile. Burning or scorching vinyl tiles can result in the release of toxic decomposition products and generate a fire hazard.

Alternative removal methods should only be used if they do not result in excessive fibre release from the asbestos millboard and do not result in any additional hazard.

Personal decontamination must be carried out in accordance with the WHS Regulations and this Code.

7 Reporting Roles and Responsibilities.

7.1 General Manager and Senior Managers.

Must ensure the implementation of this policy and accompanying procedures throughout the Council.

7.2 Manager DES and Works & Services Manager.

Must ensure that all staff comply with this policy, accompanying procedures and plans in the management of asbestos under their control.

Must also provide accurate and timely advice in reporting asbestos related incidents.

7.3 Leading Hands and Team Leaders.

Must ensure compliance with this policy, accompanying procedures and plans in the performance of their duties.

Must also provide accurate and timely reports of asbestos related incidents.

7.4 Staff, Visitors and Contractors.

Where applicable and appropriate, must ensure compliance with this policy, accompanying procedures and plans in the performance of their duties.

Must also provide accurate and timely reports of asbestos related incidents.